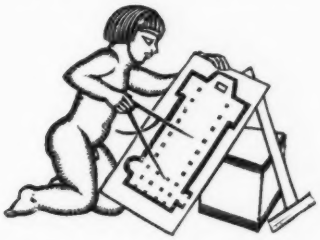
THE

ARCHITECTS'



JOURNAL

THE ARCHITECTS' JOURNAL

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So great was the success of the issue of last week, in which Mr. John Swarbrick surveyed the recent architecture of Manchester, that the Editor has arranged to produce, at regular intervals, specially enlarged numbers dealing with local developments in all parts of the country. Issues dealing with Leicester and Sheffield respectively are already in course of preparation.

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CHRISTIAN BARMAN, *Editor*

The Editor will be glad to receive MS. articles, and also illustrations of current architecture in this country and abroad, with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

RENDERINGS OF ARCHITECTURE

Selected and annotated by Dr. Tancred Borenius.

vii. Giovanni Antonio Buti (*c.* 1750).
A Roman Portico (dated 1750).

The Roman contemporaries and followers of Pannini are to this day something of a terra incognita *of connoisseurship, the tendency being to use the name of Pannini as a generic label for most Italian eighteenth-century pictures of ruins and other architectural subjects, however disparate in character. All the more interesting and valuable are, in the circumstances, the pictures in the manner of Pannini which can be authenticated as works by other masters, and hence serve as clues to the identification of their artistic personality elsewhere. The present picture is one such example, bearing, together with the date 1750, the signature of one Buti. This painter is in all probability identifiable with Giovanni Antonio Buti, about whom we know that he was working in Rome about the middle of the eighteenth century. The whole is designed with much sense of spaciousness and grandeur of effect, in some ways foreshadowing the methods characteristic of Hubert Roberts's architectural phantasies.*—[Dresden Gallery, No. 461.]

THE ARCHITECTS' JOURNAL

Wednesday, February 17, 1926

THE SUPERFLUOUS ARCHITECT

THE controversy which during the last five weeks has raged in our correspondence columns serves well to remind architects that their professional acts are being scrutinized by those engaged in the practice of other visual arts. Especially is such critical intervention welcome to us when our censor is of the intellectual calibre of Mr. Eric Gill, a sculptor of acknowledged distinction who, moreover, has the additional gift, unfortunately rare among modern artists, of being able to express himself with both vigour and clarity in the literary medium.

The argument, it may be remembered, began with a commentary upon an article written by Mr. Gill in *Pax: The Quarterly Review of the Benedictines of Caldey*, in which he had drawn a distinction between building and architecture, to the disadvantage of the latter; and he more than hinted that while for the present, at any rate, the architects must be tolerated in our midst, they must be regarded as a necessary evil. While disclaiming any desire to be considered as a Gothic revivalist, Mr. Gill yet looks upon the medieval period as one from which we have much to learn with regard to the proper *organization* of the building industry, for he believes that in those days the actual carvers in stone and wood exercised over design a measure of control which has since been wrongfully taken from them. That Mr. Eric Gill exaggerates the degree of freedom accorded to the craftsmen who worked on our great cathedrals will be apparent to all who read Professor Patrick Abercrombie's cogent letter pointing out that "the architect was there, as much in the year 1200 as in the year 1700; and the workman was, in Ruskin's and Mr. Gill's sense, servile. . . . How many hundred yards of mouldings, all exactly similar, are there, for example, in Salisbury Cathedral—how many slavishly repeated enrichments?" Mr. Gill, however, approves of workmen being given detailed instructions. He says: "You can tell a man as much as you like, you don't fetter him a bit. You only start fettering him when you've told him to do something he doesn't believe in, and yet you make him do it or else give him the sack." And again, "I believe that he (man) has free will, and has, therefore, responsibility for his acts and for the willed effects of his acts. Also, I believe, that he has responsibility for the intellectual quality of what his deeds effect." Do not these sentences suggest a possible point of agreement between Mr. Gill and modern architects? Most of us would surely like our buildings to be erected by responsible workmen who themselves understand and approve our designs. To bring about such a relationship between architects and craftsmen, the former must see to it that their designs are worthy of such approval.

As Mr. Rowland Pierce remarked in his letter, the function of the architect is to produce the *most* beautiful building he can. If he is able to persuade all the workmen engaged upon his building that its design is reasonable and good, then "his service is perfect freedom." Jobs, however, cannot be held up until such entire agreement between artist and executants has been arrived at, and there comes a time when a start must be made with building operations. Does Mr. Gill carry his protestations to the extent of suggesting that if a workman wanted to alter the character of a piece of carving, or wished to put it in a position different from that chosen by the architect, he should either have his way or be given employment elsewhere? Let us carry the argument nearer home. It has been made known to us that the men at the foundry where bronze casts were recently made for a certain group of statuary were filled with disgust at what they considered the brutality and incompetence of the sculptor's work. Should they decline to execute their task? They also "have responsibility for the intellectual quality" of what their deeds effect. The truth would seem to be that there are some arts in which artist and executant must necessarily be separate, and in these creation is not possible unless the æsthetic intention of the former is allowed to prevail. If the stone-carver is aggrieved, and thinks he can improve on the architect's designs, he has his remedy. Let him prove that he has, in his notebook, original and greatly superior designs for stone-carving, and there will be waiting on his doorstep at least half a dozen publishers, not to mention the editors of the architectural weeklies, all anxious to applaud his fame. As for the men at the foundry, they can send their protests to the *Times* as well as anybody else. The cure for every ill in the world of art is criticism. Not economic changes, reorganizations of industry, nor religious revivals will help architecture in the least unless they are accompanied by profound reflection upon architecture itself, upon the actual design of buildings, the laws which govern their composition, and their relationship to the city of which they form a part.

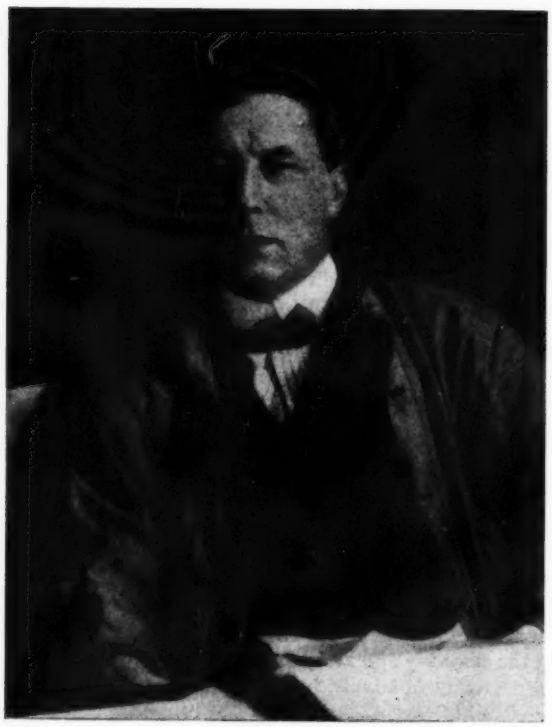
Mr. Gill seems less concerned with architecture than with the health and well-being of the building operatives. This is a matter for the political organizations, and let them look to it. Unfortunately, there are to-day very many craftsmen working in ideal conditions, well fed, well housed, and doing whatever their fancy directs, and yet the products of their industry are extremely vulgar. Not the clumsiness of the machine is responsible for this, but the stupidity and arrogance of the hand. Design is not a department of labour, but a department of philosophy.

NEWS AND TOPICS

If only Mr. Herbert Wills had remembered that, "Only the free are bond, and only the bond are free," the discussion that took place at the R.I.B.A. on Monday night would not have been. His proposals were printed and commented upon in the JOURNAL last week, and there is no need to print them again. All three were lost, by large majorities, and, with the exception of Mr. Searles-Wood, who seconded them, not one voice, I am told, was uplifted in agreement with them. It is a little difficult to imagine how any assessor would have been able to give effect to any regulation made by the R.I.B.A. setting forth that all binding conditions should be eliminated. Assessors and competitors have been concerned with such affairs in their dreams, but in a naughty world where competitions are invariably originated by a Promoter, and where the Promoter pays, it is as well to leave that gentleman as unhampered as possibly may be in the conversion into bricks and mortar of his superfluous wealth. It was the opinion of the meeting that the R.I.B.A. had gone as far as was possible in the matter, and that the more these questions were left open the better.

* * *

The name of Professor Ragnar Ostberg, the famous architect of a famous building—the Stockholm Stadshus—is to be submitted to the King for the Royal Gold Medal for 1926. It so fell out that Sir Banister Fletcher was in the chair at the Institute on Monday night. I do not know, off-hand, a greater Internationalist among architects to make an announcement of so much importance and distinction concerning another architect who, though of our profession, is of another land.



Three years ago Vienna Municipality pledged itself to build 25,000 dwellings, either in settlements or apartment houses, within five years. This number will be completed already before the end of the present year, for building has gone on apace—19,000 are already finished and tenants have entered into possession. But even the 25,000 are not sufficient to cover all requirements, for the housing difficulty is ever present. The more especially for the reason that as long as the Rent Restriction Act obtains, there will be no possibility of getting any interest on the capital outlay involved in setting up houses. Now the great question is, will the municipality continue the work of supplying accommodation of Vienna's citizens? And if so, where is the money to come from? Already there is a talk of increasing the equivalent to an Inhabited House Duty, while those forced to pay are demanding a decrease, or even the abolishment of the present one. Till now the municipality, which is entirely social-democratic, has spent 1,000 milliards of Austrian shillings in building. Of this, only 300 milliards has come to its coffers through the Inhabited House Duty. Where is the money to come from for further building? It is true all classes have to pay the tax, which is progressive, according to the rent paid to the landlords. In the meantime they are not allowed to raise the rents of their houses, for acting on the decision "that a krone is a krone," tenants still pay only the same number of kronen now as they did in pre-war days. Of course, they pay in schillinge now, but it amounts to the same thing. It means that a person in 1914, paying a rent of 1,000 kronen (£40 sterling), to-day must pay only for the same house or apartment the same number, or its equivalent in the new currency—schillinge—when the 1,000 kronen is worth nil, for 340,000 go to make a pound. By an act of grace on the part of the municipality the landlords are allowed a multiple of fifteen times the rent. This does not amount to much, except for the fact that the tenants are responsible now for the keeping of the houses intact, and the landlords are entitled to collect the sums for this purpose. The tenants, however, are empowered to see that they are so used. No wonder there is much resentment on the part of the unhappy landlords. That this is shared by the tenants is less understandable, for after all, they are all, more or less, parasites on the owners of those dwellings they occupy. This, however, will not affect the municipality, which goes unheedingly on its way, and there is even talk of its building a garden city within Vienna itself.

* * *

One of the most important schemes of municipal extension mooted in recent years is that at Coventry. The Council of this city are considering the purchase of 2,300 acres of Lord Leigh's Stoneleigh estate for £114,000. One of the reasons for the Council's consideration is that most of the land comprising the present municipal area has been built over, and there is still a demand for further building sites. As the owners of the new area, the Corporation will be able to plan the whole site, and it is proposed to set aside quarters for large residences and small houses, to provide for recreation grounds and allotments, and to assign localities for factories abutting on two lines of railway. The Kenilworth road with its woodlands will be preserved. The Coventry boundary comes close up on the northern side of the purchased area, and hereabouts is the principal suburban district, which is occupied by villas. Such a site provides a magnificent opportunity for town planning, and it may be hoped the new lay-out will provide a model for other city extensions.

If ever the practice of roadside tree planting becomes as general in this country as it is abroad, posterity will certainly have to thank Colonel Wilfred Ashley, who is once again writing to the *Times* on the matter. Incidentally, too, since we are all inclined to be a little hard on Government departments, I feel that we should acknowledge the credit due to Mr. Ashley's department, the Ministry of Transport, for the help and encouragement which it is giving to local authorities to plant trees. Now that grants are available from the Road Fund I hope that the practice will tend to become general, especially along some of the new arterial roads. In this respect the Middlesex County Council sets a good example, for during the next twelve months it purposes planting some twenty-four miles of new arterial road. The species selected include red chestnuts, maples, and mountain ash. Both the maple and mountain ash withstand town conditions and smoke and fumes, but the chestnut, I believe, is not such a good smoke resister. It is little use, however, endeavouring to beautify roads with tree planting if adventurers are to be allowed to deface the roadside, and on the whole local authorities had as well refrain from spending money on trees if they are not prepared to exercise their rights by forbidding the erection of hoardings and such-like disfigurements.

* * *

Like some of the great multiple stores which have grown, we are told, from some almost inconceivably humble back-street origin, the London Polytechnic seems capable of wellnigh limitless expansion. It started its career in emulation of an institution called "The Adelaide Gallery," named after the consort of William IV., and soon became inseparably associated with "Professor" Pepper and his famous ghost. But financial difficulties overtook it, and in 1880, Quintin Hogg, who had already started classes and lectures for young shopmen and artisans, took over the empty Regent Street building. Thence onwards the enterprise flourished, and in the early days of this century the old building was replaced by the present one, Mr. Verity's design causing no little stir at the time of its erection. Now the famous institution calls for a sum of £146,550 for further extensions. Of this vast sum nearly half has already been received, the King being one of the contributors. It appears that the institution has already outgrown its main premises, and much of the work is carried on in unsuitable annexes, many of the leases of which are falling in. The Polytechnic has with justification escaped the invective which has been thrown at modern Regent Street. With such a precedent I expect the new building will be no less an asset to its environment.

* * *

It is good to see the secretary of the Society for the Protection of Ancient Buildings protesting in the pages of the *Times* against the modern American practice of taking materials and fittings from old English houses for transport across the water. The moving of works which were designed to grace some particular position is far more reprehensible than the transportation of easel pictures, however precious these latter may be. Every man who, desiring to repair a house, church, or cottage, determines to do this with old materials, determines at the same time the destruction, or at least the harming, of other valuable structures. Old stone, slates, and weathered tiles cannot be had unless they come off old roofs. Ancient fireplaces and panelling are not for sale until they have been torn from the rooms they were designed to decorate. Mr. Powys points out the hollowness of the plea that these old materials and fittings have been already removed from their original setting and will never be returned, for every purchase that is made encourages the salesman to seek further and to destroy yet other noble works of art. Far more damage is done to English buildings this way in one month than has yet been done by all the foolish Americans who have transported houses whole.

* * *

Five-and-twenty new churches are so urgently required for the diocese of Southwark that the bishop, brave man, is resolved to beg from door to door in a sensational effort to raise the hundred thousand pounds sterling that the scheme is expected to cost. Moreover, this valiant bishop, being fully determined that the churches shall not be ugly, is with that laudable aim inviting the co-operation of none but reputable architects. A certain member of the bishop's staff has entertained a *Daily Chronicle* interviewer with a *ben trovato* story of an architect who, in days of yore, put up about a score of the ugliest churches possible or conceivable. This architect was a singularly methodical man, and laconic withal. He used to keep, so the legend runneth, "a series of designs in a bottom drawer, and when one wanted a church the architect simply said, 'How much?' and pulled out a design for one which would cost the stated amount. He had them labelled £5,000, £6,000, £7,000, and so on." Well, what would you? Stores prices connote stores methods, with ugly buildings added to avert an "unresolved duality." As this cunningly-devised and obviously apocryphal fable is equally unflattering to ill-advised clerical clients, and to the imaginary vendor of ready-made designs, I am quite willing to condone it. Besides, does it not point the excellent moral, never to build ugly churches at any price?

* * *

"Ghosts of Piccadilly" (I am recalling the title of a fascinating little book by Mr. G. S. Street) are soon to be driven from their accustomed haunts. Alas! poor ghosts. As it happened in the celebrated precedent of Hamlet's father's apparition, their final performance may be given underground. Perhaps the "UndergrounD," all things considered, will consider the advisability of wholesale and complete exorcism, for it would not be pleasant to meet in a narrow subway the phenomenally ugly face of Wilkes, or the (if possible) even uglier phiz of "Monk" Lewis, of whom it is written that his "queer eyes projected like those of some insect, and were flattish in their orbits." Ugliest of all—morally, if perhaps not physically—would be the sinister leering countenance of infamous "Old Q." All would have passed with honours the stringent tests for membership of Steele's Ugly Club, whereof the first condition was, it will be remembered, "That no Person whatsoever shall be admitted without a visible Quearity in his aspect." Rather than risk meeting any of these awe-inspiring spooks in the subway which is promised for Piccadilly Circus, nervous pedestrians would surely choose the more corporeal hazards of the traffic-congested streets, where the swift- far-darting motor daily sends recruits to join the hosts of ghosts; for, as the grim American humorist has tersely said: "If you ain't quick, you're dead." Apparitions

and joking apart, something should certainly be done to make the new subways less ugly than those that are already in being. Some attempt should be made to introduce at least a suggestion of architectural attention. "Safety first" is a wise saying, and a prudent, but it does not necessarily exclude art.

* * *

To read of prospective street "improvements" in Rome is to become shudderingly apprehensive. To widen or to straighten almost any street in the Eternal City is inevitably to mutilate or to destroy historic monuments. I read, therefore, with much depression of spirit that almost all the vital parts of the English College in Rome are threatened with demolition, and that the garden of the college is to be "butchered" to make a Roman—covered market! Venerable is the affection bestowed upon the college, and it is not undeserved, seeing that its foundation dates back to 1362, when the site was acquired for the English community in Rome. Towards the close of the fifteenth century it was the usual residence of the English Ambassador. In 1580 it became, and has ever since remained, a college for training Englishmen for the priesthood. Its annals are fragrant with the records of fleeting visits from men as variously interesting as Milton, Evelyn, Crashaw, Macaulay, Gladstone, and Manning. And so, having, to my no small hurt, "a heart to sentiment inclined," I can never mark the threatened, still less the actual, destruction of a venerable monument without a heavy sigh for the human interest that also comes to naught with it. *Quod est absurdum.* But even though the fabric of the English College be sacrificed to a belated scheme of town planning, I am a little consoled by the reflection that the British School at Rome, being a very different institution, probably has before it many years of history to make.

* * *

An architect friend at present journeying through Italy writes:

Who has not played in fancy with pictures of Venice, that magic city, with its many waterways, gondolas, and warm colouring; its picturesque bridges and people; its wonderful churches and palaces—fit subjects for the realms of phantasy, and beyond the cold realities of life? But let me paint you another picture. Imagine a fitful journey across Northern Italy in the depths of winter, an icy grip on everything. Huddled into our corners for warmth—the very steam pipes in the carriages have frozen—a fellow passenger speaks of Venezia, and we rouse ourselves from the torpor into which we have sunk. The train is passing through an ice-field—ice as far as the eye can reach—a scene rather for Polar explorations than for the environs of Venice. We rub our eyes and look again. A bathing hut. Painfully, for the cold has entered our very marrows, we spell out the four letters above the entrance: L-I-D-O. We inform two porters of our immediate requirements; night approaches, and we think pleasantly of crackling fires and hot buttered toast and gallons of scalding tea, and—they motion us into a gondola! For fifty frozen minutes we progress painfully through miniature ice-flows, the gloomy silence broken only by the monosyllabic "Hola" of the gondolier as we turn a corner, and mutterings and moanings from us anent the cold. What matter the "sights" on such a night? Why draw our attention to the Palazzo della Ca d'Oro—wretched man, be quiet! And next morning (January 14, 1926) it is snowing heavily, and schoolboys are indulging in a free fight in the great piazza before St. Mark's!

* * *

THE HOUSE: A FABLE

An architect I once knew designed a house for a *very* difficult client. This difficult client insisted on having everything that was bad, and would hear of nothing that was reasonable or good. When the house was built, the client died. There being no estate, the architect was given the house in payment of his fees. But the house was too bad to sell, and the architect had to live in it himself. And he too died soon from vexation at seeing always before him the impossibilities and evils of the house.

ASTRAGAL

ARRANGEMENTS

WEDNESDAY, FEBRUARY 17.

At the Institution of Civil Engineers. 6.0 p.m. D. S. Matheson, B.SC., STUD.INST.C.E., on Subaqueous Tunnelling in Compressed Air, with Reference to Barking Power Station Cable Tunnel under the River Thames.

SATURDAY, FEBRUARY 20.

Royal Institute of British Architects. Visit to Messrs. Courtaulds' New Premises.

MONDAY, FEBRUARY 22.

At the Institution of Structural Engineers. 7.30 p.m. H. F. Lea on Arterial Road Construction.

WEDNESDAY, FEBRUARY 24.

At the Royal Society of Arts. 8.0 p.m. Mrs. Mary Fishenden (Fuel Research Board) on Domestic Heating.

FRIDAY, FEBRUARY 26.

At the Institution of Civil Engineers. 8.0 p.m. Dr. H. T. Calvert on The Activated Sludge Process of Sewage Treatment.

MONDAY, MARCH 1.

At the Royal Institute of British Architects. 8.0 p.m. Lieut.-Col. H. W. G. Cole, C.S.I., O.B.E., on The Paris Exhibition of 1925.

WEDNESDAY, MARCH 3.

At the Institution of Heating and Ventilating Engineers. 7.0 p.m. Joseph Meech, A.M.I.E.E., on The Design and Application of Electric Motors Relating to Heating and Ventilating Installations.

THE STEEL-HOUSE DEBATE

BY B. S. TOWNROE

THE debate in the House of Commons last week on the Government's proposal to erect 2,000 steel houses in Scotland proved how difficult it is for the average politician to talk rationally about a technical question. A careful analysis of the speeches will show that neither the Government nor the Opposition speakers dealt adequately, or even accurately, with the various issues. Sir John Gilmour and Captain Elliot, on behalf of the Scottish Board of Health, spoke with more or less skill over controversial matters, while the majority of the Labour speakers wasted time by unnecessarily bitter attacks upon Lord Weir, or by a fervid defence of trade unionism.

It may, however, be of value to consider the whole debate, quite apart from political considerations, and to try to sum up the present position of steel houses.

Captain Elliot declared that "many scores of Weir houses" had been put up for demonstration purposes, but it should be noted that actually only twenty-one of these houses have been erected in England and Wales, and 216 in Scotland, chiefly for colliery companies. Little was said in the debate as to other forms of steel houses, although there are at least four other types of heavy steel houses being manufactured. The Atholl steel house, built by Messrs. Wm. Beardmore, has been selected by the L.C.C. out of all other types, and it is understood that the Housing Committee recently approved of the erection of 250 on the Hendon Estate, to be followed by a possible 750. There is also the Cowieson house, made at Glasgow, of timber and steel. Some 500 Atholl and 500 Cowieson houses are to be built in Scotland by the Second Scottish National Company—the Housing Trust, Limited—acting on behalf of the Government. No objection is raised by the building industry to either the Atholl or the Cowieson house.

The houses of three firms, Messrs. Weir, Messrs. Cowieson, and the Atholl Steel Houses have been selected by the Scottish Board of Health. Any income derived from the rents for the houses, or any money raised by the sale of the houses, after meeting management charges, as well as interest on loans, will be applied towards repayment of advances made by the Exchequer. Only in reply to the direct question raised by Major Guy Kindersley, a conservative M.P., who is a well-informed supporter of the garden city principle, did the Government confess that all the capital needed for these 2,000 steel houses will be supplied either from the Loan Commissioners or through the Treasury, and that should any loss occur this will be accounted for by the Government.

With considerable difficulty the officials responsible have acquired sites for the erection of these houses in Glasgow, Edinburgh, Dundee, Greenock, Clydebank, and parts of Lanarkshire, but in some cases the preliminary arrangements have not yet been confirmed by the Dean of Guild Courts. Some of these houses are to be started on February 20. The present plans are, however, only for the erection of 1,200 houses, and Parliament is to be asked to provide more money for the next financial year. Such practical questions as the ultimate cost and liabilities incurred by the Government were evaded by almost every speaker in the debate, and the vote was only for the current financial year, which ends in a few weeks' time.

Before considering in more detail this ill-defined experiment, we should recognize that there are other kinds of steel houses in existence. There is, for example, the Telford house, that has been built at Birmingham and elsewhere.

There is another type of steel house, so far little known, built by the well-known shipbuilders and engineers, Messrs. John Cran and Somerville, Ltd., of Leith. The outer structure of this house is composed entirely of steel plates, three-sixteenths of an inch thick, which are a good deal heavier than those used in the Weir bungalow.

Neither the "Telford" nor the "Cran" house were referred to in last week's Parliamentary debate, which mainly centred upon Lord Weir and his house. The venom of the personal attacks made upon a man who has certainly devoted a good deal of energy, and, so it is believed, at least £60,000 of capital, to developing this system, weakened the Labour attack. But, on the other hand, Captain Elliot, in the opinion of many experts, laid far too much stress on the report of the Moir Committee. The first report of this Committee dealt exclusively with the Weir house, but all who read the exact words used know that it was timid and hesitating. On conductivity the report stated: "we do not anticipate that serious objection can be taken to the house on this score"; on the risk of sweating: "we do not anticipate that there will be any trouble under these heads"; on vermin: "we do not think there will be any greater difficulty than appertains to houses of similar internal construction." As a matter of fact the words of this report were revised again and again, and the conclusions emasculated in order that the varying opinions of the Committee might be included. Scientific opinion on the Weir system is practically *nil*, for the Moir Report was obviously a compromise, and the Building Research Board, the Government's scientific advisers, have apparently never been consulted.

Space will not permit, nor is this the place to enter into the controversial question as to the rates of pay in the Weir factory, or to the interpretation of the "Fair Wages" clause that will be applicable to the Scottish contracts. But all readers of THE ARCHITECTS' JOURNAL will be in agreement that the urgent need is to provide houses, and that if mass production can build dwellings that are sanitary, waterproof, not too unsightly, and sufficiently inexpensive to allow of a comparatively short life without an excessive loss, then experiments should be encouraged.

The debate, however, failed to answer many of the doubts felt generally by architects and others as to the wisdom of expending an unknown amount of public money upon houses which certainly are only suitable for selected tenants, and are costly as compared with brick if length of life and cost of maintenance are reckoned with. For example, the estimated cost at Cupar for Weir steel houses of the Eastwood type in pairs is about £440 per house, whereas brick houses of the same size, in blocks of four, are being built for less than £400.

Again, those who advocate British goods being utilized, wherever possible, must be disconcerted by the admission made in Parliament by Sir John Gilmour that a proportion of the baths provided in houses erected by Messrs.

Weir are not of British make. It is believed that the steel used is not of British origin.

Those who know the value of concrete must also be somewhat surprised at the fact that the offer made by an English firm of contractors to build 10,000 houses in Scotland in four years at a cost, complete, of £400 per house in concrete was refused. This offer was not referred to by the protagonists of the Weir house in Parliament.

Last week's debate was only the first round in a conflict that is bound to create further trouble in the near future. Apart from the Trades Union controversy, it will not be easy to fulfil the conditions laid down that not more than 10 per cent. of the labour employed in the production and erection of these 2,000 houses shall be skilled building trades labour, and that they shall be delivered at the rate of 1,000 houses a year from a date to be fixed by the Board of Health. Nor do we yet know the total cost, or the expense of transport, country time, living away allowance, and similar additions. Many feel that an undue amount of Parliamentary time and energy is being spent, and an unknown amount of public money earmarked for what promises at present to be comparatively a poor result.

FLOOD-LIGHTING

BY C. CAMPBELL CROWTHER

THE topic of "brightening London" is a hardy perennial. Any literal connotation conceded to the phrase is limited to the mechanical marvels of Piccadilly. Which is the way of a public that wants a rainbow for twopence. But for him who truly loves his London, the increasing vogue of flood-lighting gives a real content to an empty cliché. It is as though this old city had at last determined to assert its corporal presence in the leisure as well as in the daily grind of its citizens. A few years since, the City worker knew his West End mainly as a mystic cavern of starry nuclei and cheerful noises. Now there are few of its principal streets whose architectural being is not in part made more significant by night than in the unselective light of day. And yet it is the same spirit of *réclame* that has produced both the sky-sign and flood-lighting. Strange, the irrelevance of the impulses that underlie artistic achievement!

In these days, when the upward urge of the tower motive in building is turning our streets into crevasses amid piles of masonry, it is curious to note how ill-suited for architectural appraisement the light of the sun can be. The three-dimensional nature of a building is mostly lost in any case, but the effect of a perpetually diffused top-lighting is to emphasize any projecting horizontal feature, such as a cornice, at the price of emasculating the vertical lines. In the circumstances, it is idle to pretend that one can ever obtain a really just impression of any composition. But with flood-lighting it is possible at least to manipulate the chiaroscuro, and even to eliminate it altogether. The General Electric Co.'s offices in Kingsway is a good example of the strength and weakness of the employment of arcs well set back from the building, directed upon every feature in horizontal or slightly oblique planes. While it undoubtedly reveals the abstract form of the design, it is singularly destructive of plastic effect. With the elimination of shadows, certain features become unduly prominent; the chimney-stacks, for example, are brought into almost the same visual plane as the façade itself, with a distracting effect upon the eye. In fact, the whole is so suggestive of the drawing-board rather than of reality, that a breath might almost blow it down. In any case, such a system could not be generally adopted in our streets without the complete suppression of one side or the other by the ancillary function of supporting the arcs. That, of course, is not necessarily regrettable at present, but it behoves one to be an optimist in æsthetics.

Magnet House, Kingsway. By R. Frank Atkinson.

The view of Messrs. Heal's at night reveals an attempt to counteract these defects of form and good manners. The system of lights thrown almost vertically upwards from various points of the building itself offers an infinite scope for variations, especially of a dramatic tendency, as will be seen later. Here, however, it is adapted solely

to rendering architectural character. By placing the arcs upon the sills between the piers, an almost grim sincerity of function is lent to a composition that is uncompromising enough by day. The high lights upon the heads of the openings in contrast with the shadow on the principal features both preserve the plastic nature of the whole and emphasize the structural inessentiality of the windows, simple and broad if vertical lighting is to be plastically truthful. The frontage of Messrs. Waring and Gillow illustrates this well. The prominence of the horizontal lines, notably of the cornices above the first-floor windows, makes it impossible to avoid breaking up the surface into independent fields of light, while the loosely-knit elements of the composition defy dramatization. In the circumstances, horizontal flooding would have been the easiest solution, but that, as we have observed, is anti-social, and calls for a more than human forbearance in one's *vis-à-vis*. As it is, the concentration of light on the decorative features is not without a certain effect of persiflage that befits both the human atmosphere of Oxford Street and the baroque nature of the piece.

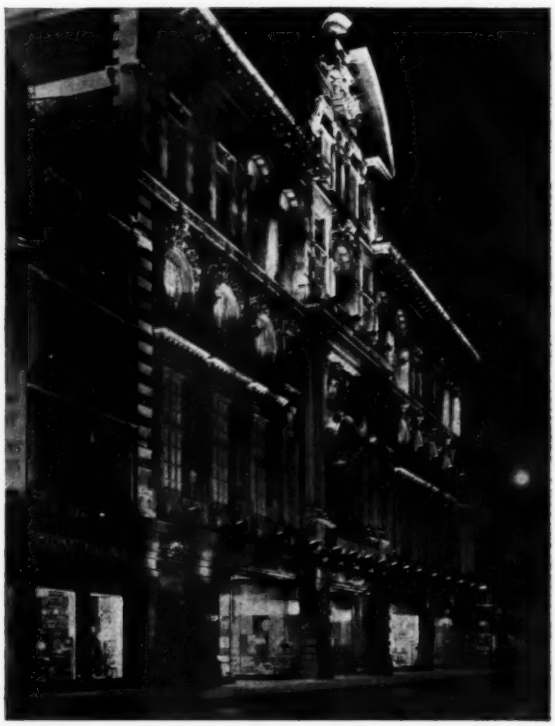
The Wolseley Building, Piccadilly.
By W. Curtis Green, R.A.

which is much less obvious in natural light. Not a little of this effect, however, is due to the co-operation of internal lighting; indeed, the ground floor is lit from the inside alone. Needless to say, such a method could succeed only where, as here, there is a maximum of window space.

It is not every building, however, that is susceptible of a really architectural rendering. The features need to be

Results such as this are frankly impressionistic, and it would argue an extreme want of humour to suggest that realism is the only end. What is, in fact, more æsthetically intriguing is the adaptation of architecture to theatrical motives. Indeed, our remaining examples invite comparison with current ideas about stage-lighting. Of these, perhaps the least effective is the Canadian Government building, possibly because it halts between an attempt to render the intellectuality of classicism and a symbolistic hint of mystery in the "greying-out" of the upper stories. It will be noticed that the arcs are situated in the basement. In Wolseley House, however, there is a complete synthesis of architectural and dramatic motives. In essence, it shows simply a bolder application of the method employed by Messrs. Heal. But the deeper recessing of the windows enables all but the central motive in the composition to be blacked out, while the Corinthian pilasters produce a truly theatrical chiaroscuro. It is, in fact, almost as much of the "set" in its make-up as Selfridge's, which is the classic instance of dramatization. Here, pure impressionism has been the aim; there is no more than a suggestion of architectural forms, while the subdued tone of the illumination, fading out almost before it reaches the capitals, is a more impressive hint of immensity than any startling contrast, however well adapted for such treatment the building is.

The whole question of flood-lighting is a powerful argument for the new architecture. That it has a commercial value should, besides encouraging the cult of strength and simplicity in design, induce a closer attention to abstract problems in the layman. For, of the buildings under notice, those that best stand the test of lighting-effects are beyond doubt those in which the composition embodies few elements boldly developed. It remains now to assault the stronghold of direct lighting. When the gin-palace yields up its rococo splendours we shall be a nation of artists.



Above, the Canadian Government's building, Trafalgar Square. By Septimus Warwick. Below, Heal and Son's building, Tottenham Court Road. By Smith and Brewer, and (right) Waring and Gillows, Oxford Street.

CURRENT
ARCHITECTURE
SECTION

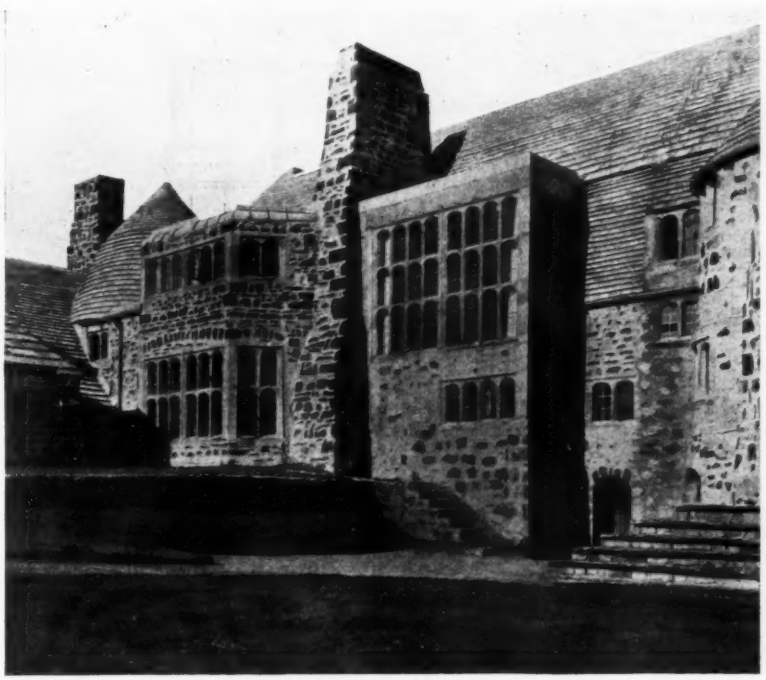
A House in Argyllshire. By Oliver Hill. The south-east front.

STONE-BUILT HOUSES

BY WILLIAM HARVEY

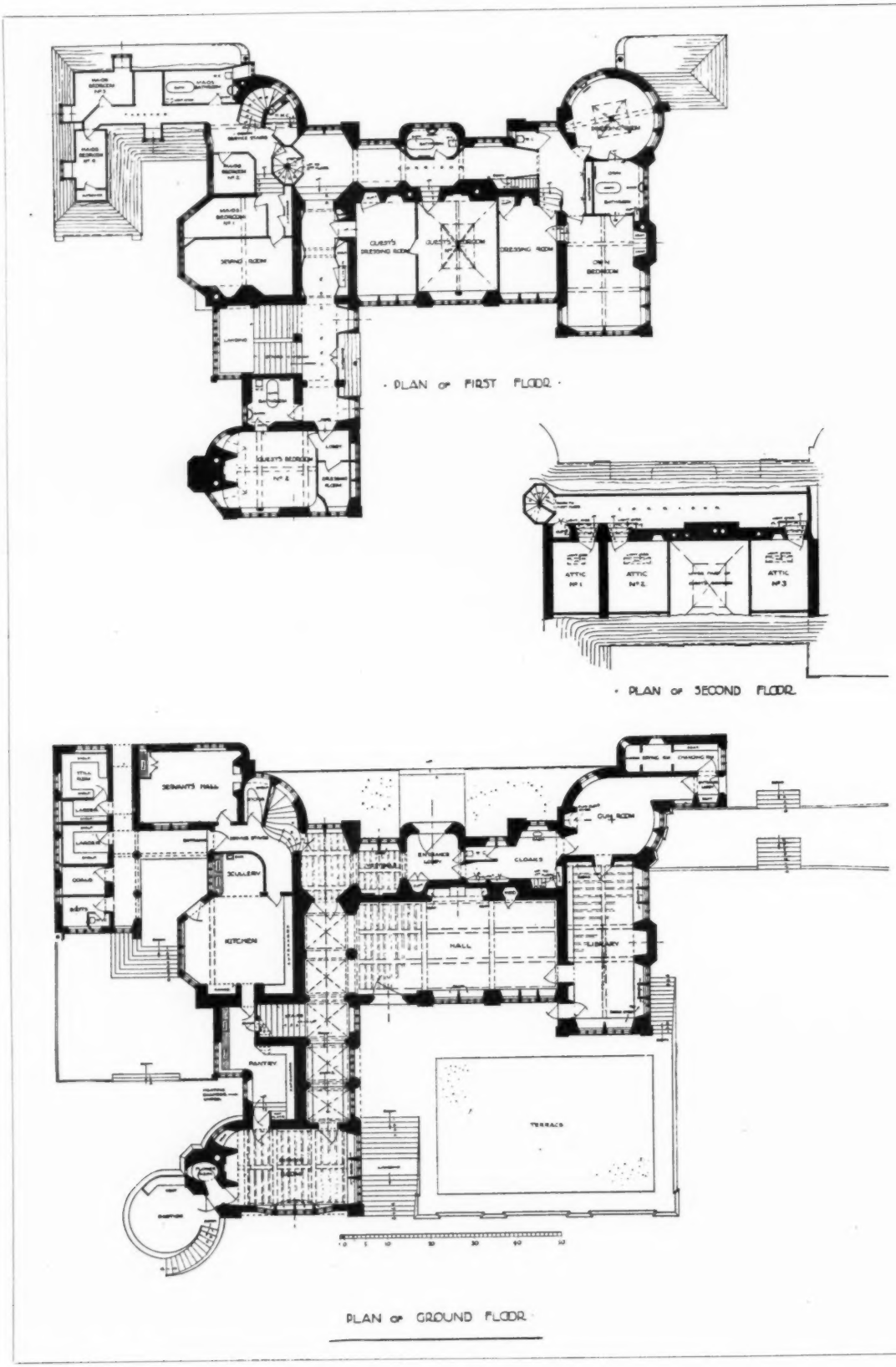
[The following article, and the illustrations accompanying it, are of peculiar interest to-day in that they not only show how stone should be used in building, but also describe at least one excellent way of obtaining this material. Except under very special circumstances, and at the hands of a genius, a regional material is the foundation of regional architecture, and stone is, of course, one of the few materials that may be picked up, ready for use, on the site itself. How the results of this process may be turned to advantage in another way is shown in the surroundings of Mr. Richard Jaques's house at Barrowford.—Editor, A.J.]

STONE, considered as a material of construction, differs from brick in that the shape of each and every block has to be thought about individually, if not by the architect, then, at least, by the builder. A house of brick implies a house having moderately smooth, flat walls, and a certain limited range of texture controlled by the standardized size of each regular unit of burnt clay. The size of the unit and uniformity in the repetition of units must find their places in the total effect of the building considered as a work of art. A stone house complies with no such limitation to uniformity. Discretion in utilizing odd shapes of locally-obtained stone may determine many details, and even affect the whole design of the building, both in its construction and in its artistic aspects. The irregular chinks, too, between stone and stone, also tend to differentiate stone building from brick building by making the quality and the quantity of the mortar even more important matters where stone is concerned.

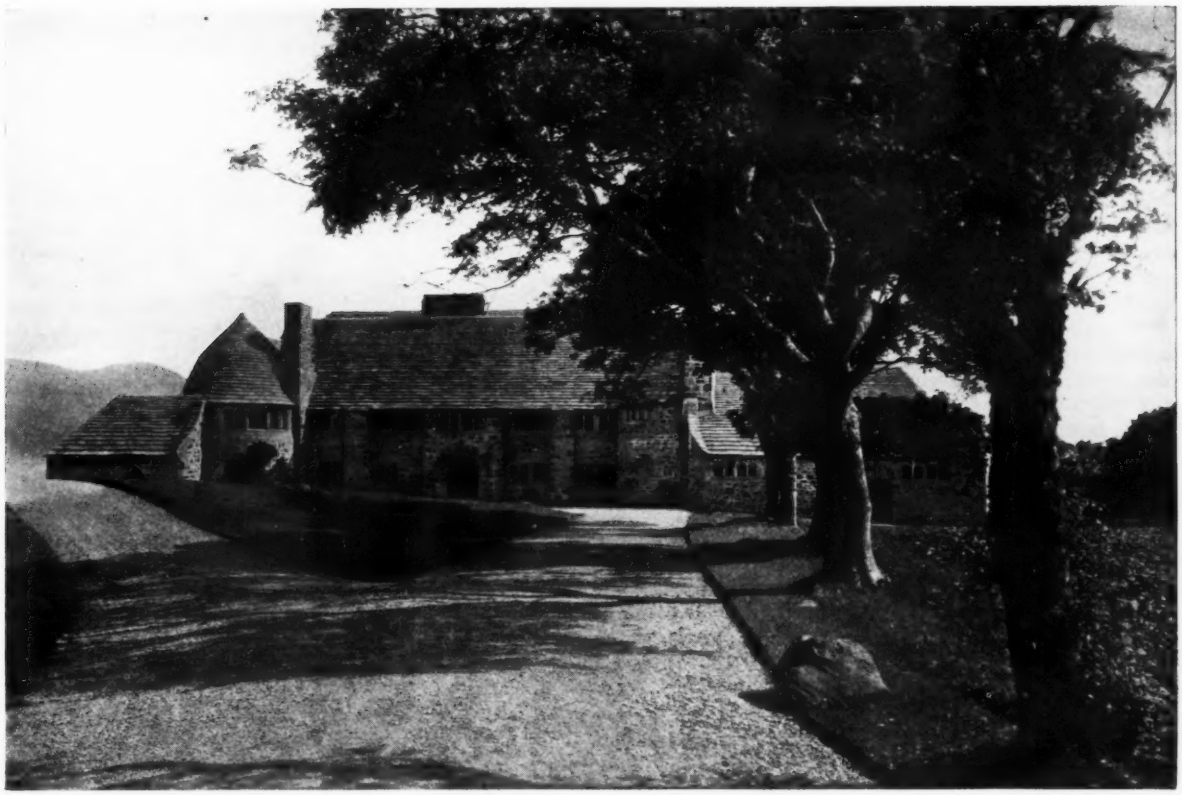


The kitchen court and great stairs.

Design intended for translation in terms of stone and mortar is more fluent and more adaptable than design for brick, and is more capable of variety in massing, as well as being endowed with greater possibilities for the exploitation of surface texture. Suit-



A House in Argyllshire. The plans.



able stones may, indeed, be trimmed to conform to a regular design, but in the nature of things, the greater importance of mortar in the construction of the stone wall opens up the possibility that the finished effect will exhibit some evidences of the plasticity of its mortar content. The architect designing for stone can depart, if he will, from straight lines and design in curves. Tapering forms, which are rarely produced in brickwork, and then only with considerable expense and difficulty, are easily possible in stone.

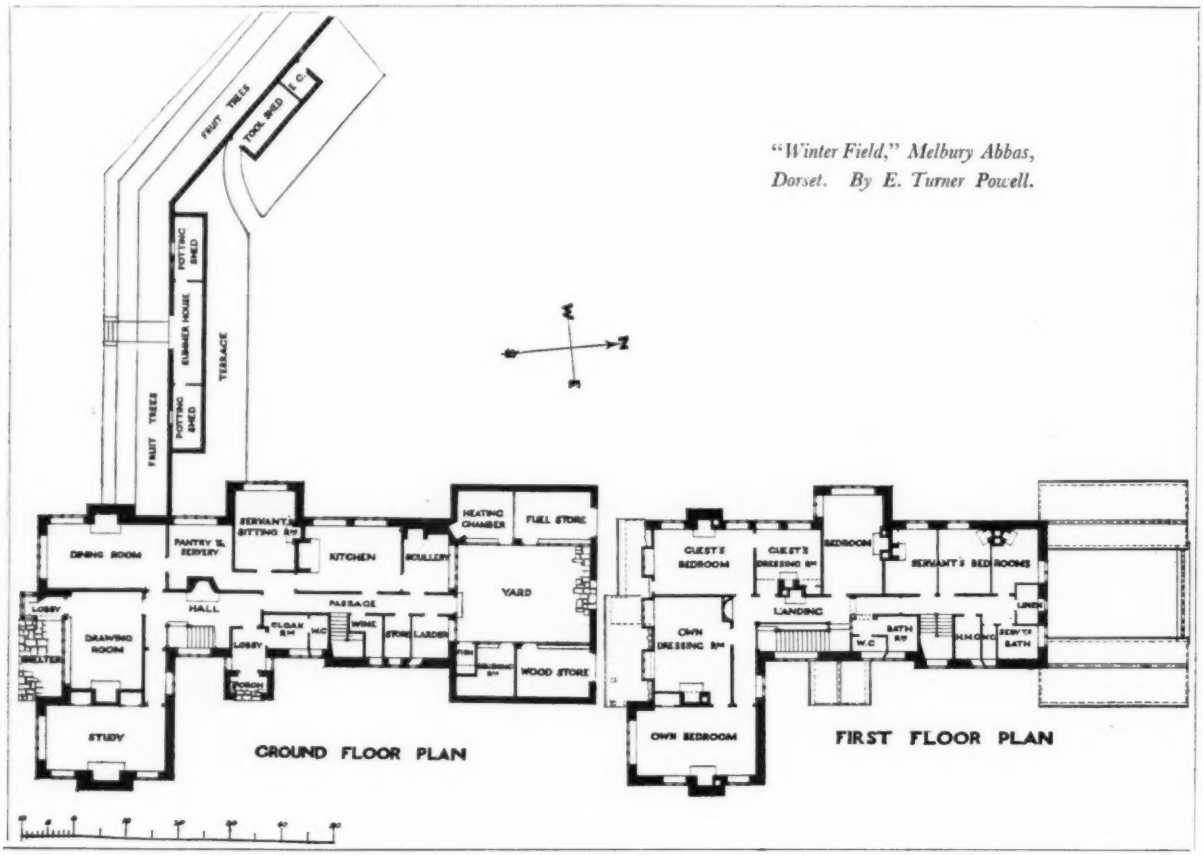
From the shores of the Mediterranean to those of the North Sea, the ruined remains of stone buildings erected by primitive peoples are found to include rounded and tapering shapes in watch tower and broch, and it may be

A house in Argyllshire. Above, the entrance front. Below from the west.

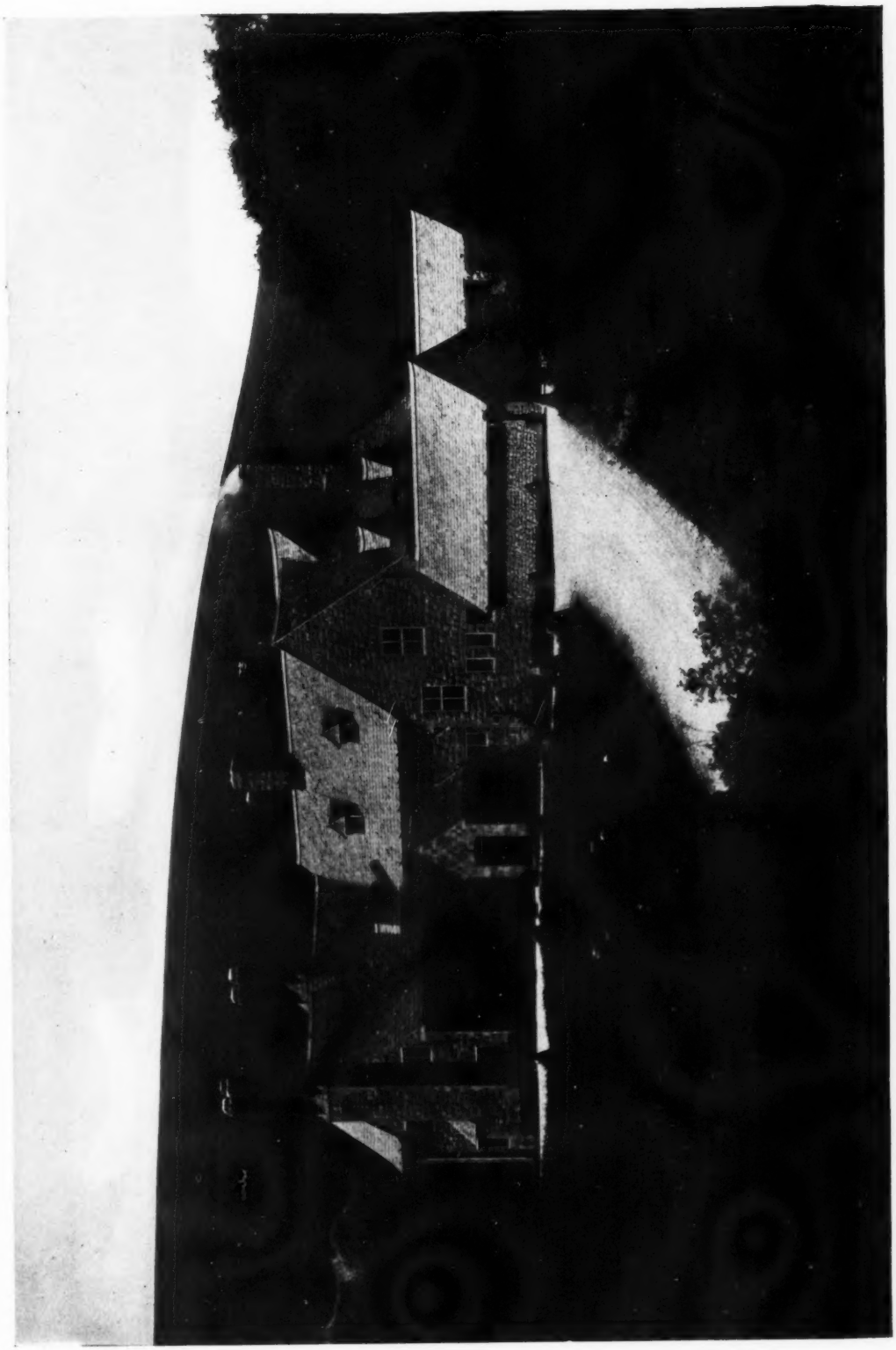
fairly inferred that rubble masonry, whether laid dry or bedded in mortar, naturally lends itself to the creation of curvilinear masses. Where the roughest and simplest class of walling is under consideration it is still actually both quicker and cheaper to build rounded corners than to take the trouble to select or to dress stones for the purpose of making a special rectangular quoin.

Rich effects of gorgeous colour uniformly spread over large plain masses are not as easily obtainable in stone as by the use of specially prepared bricks, but a vigorous play of light and shade and broken colour is generally possible to the stone builder, and may be consciously exploited by the architect as essential parts of his design. These aspects of the utilization of stone as a building material are vigorously expressed in the house in Argyllshire, erected to the designs of Mr. Oliver Hill. Even the plan indicates stone and mortar, and not brick, as the substances from which the outer walls have been constructed. The curving walls of the gun-room, the entrance lobby, the store, the service stairs, and the elliptical flower-room all proclaim the plastic possibilities inherent in rubble-stone and mortar. The wedge-shaped plans of the solid piers and mullions beside fireplaces and in windows reinforce the impression conveyed by the curvilinear walls, and the photographs showing the exterior fronts of the mansion reveal the fact that plan and elevation are closely in accord with one another. In the entrance front the expression of plasticity in the curving and tapering masses is unmistakable. The large cavetto-moulded arch of the central entrance is adroitly contrasted with the convex sweep of the gun-room on the left and the service staircase on the right, while the rounded angles of the changing-room block and of the servants' hall prepare the way for a return to straight lines at the extreme corners of the building.

The factor which makes the production of curving masses economically possible in a modern home---the combination of rubble-stone and mortar– is exultantly proclaimed on the wall-surfaces where the stones of different sizes and colours are set in plentiful frames of wide mortar joints, the mortar actually predominating in superficial area over the exposed surface of the stonework. The mullioned windows in this front have been purposely kept low so that masonry of comparatively light tone value surrounds the dark voids of the glass area. This arrangement saves a situation which might have turned out awkwardly, since small windows lighting the cloaks and w.c. are placed in positions where they are given the artistic duty of balancing larger windows on the other side of the entrance door. A little more masonry over the upper windows of the centre part of the entrance front might very possibly have benefited the design both by framing them more effectually with the lighter tone of the masonry and also by avoiding the division of the building's height into two exact halves at the eaves' level. As things are regulated at present the roof appears just equal to the wall, though its fine expanse of stone slabs laid in diminishing courses is such a beautiful feature that it goes a long way towards atoning for this all too common error in proportion. Equal divisions of height appear in some other parts of the building, and equal division of the breadth of windows by means of a more substantial mullion in the centre has been systematically adopted. Like the Scotsman in *Punch*, who was



"Winter Field," Melbury Abbas, Dorset. By E. Turner Powell.



"Winter Field": the entrance front.

discovered eating the butt-end of the asparagus, the architect may defend his choice of equal division of masses with the remark : " Mon, Ah prefer it "; though it is also possible for central division lines to provide themselves accidentally, as those who studiously attempt to avoid them are well aware.

The picturesque massing of rounded and straight walls is reflected, and, indeed, emphasized in the arrangement of the roofs, which include conical shapes over the round chambers with the roofing slabs swept in a very charming manner around their curving surfaces. That one must suffer to be beautiful is, however, indicated in the second-floor plan, where three attic rooms and the corridor serving them have all been provided with top lights instead of windows which would have cut up the roof slopes. The Oriental manner of building a stone vault and roofing it with a stone-flagged terrace on top would have certain advantages over a method which involves the sacrifice of a viewpoint commanding a stretch of lovely scenery, but that would have implied fundamental alterations in the whole scheme ; one can't eat one's cake and have it.

Great skill has been shown in adapting the picturesque building to the undulating plot of ground upon which it stands, and the different levels of soil retained by earth mounds, revetment walls, and flights of stone steps count for a great deal in the perspective effect of the whole group. As an instance of the care taken in this respect it is noteworthy that the terrace shown on the plan in front of the hall has been divided in execution into an upper and a lower portion to permit of a better view of the hall windows and the entrance door from the low ground, which falls away from this corner of the building. A single terrace at the higher level would have cut off a great part of the building and left it robbed of its proper proportion and interest. A few blocks of native rock allowed to remain at the edges of the paths assist in harmonizing the architecture with the landscape, and give their mute but powerful approval to the style adopted in the design.

An altogether different aspect of stone construction is evident at Warnford, Barrowford, designed by Mr. Richard Jaques, A.R.I.B.A., for his own home. A plan in which practical convenience in working has been thought out in every detail had to be translated into actual materials of construction, and stone, being available on the site, was utilized for the purpose. The question whether stone is or is not more suitable than brick for the development of plastic effects hardly arises in connection with the house itself, yet the possibilities of creating curved walls of masonry have been exploited to the full in the embankment walls which border the approach drive and surround the beautiful sunk garden and croquet lawn. Thanks to the lavish use of stone, the whole appearance of the site has been revolutionized.

It was originally a steeply-sloping hillside, with a fall of 40 ft. from N.W. to S.E., but the processes of excavating a quarry in one part, and of constructing embankments in others, have imparted a sense of protection and seclusion to what would otherwise have been an exposed position. Level plots for the house, the two lawns, and the lake have all been made practicable by careful study of the natural opportunities and by making the most of them.

After the top soil of the hillside had been removed and stored for re-use and the quarry opened up, the first thing to do was to erect an embankment wall 20 ft. high and

" Winter Field " from the south-west.

"Winter Field" from the south-east.

6 ft. thick by way of fence along the south side of the plot. Other lesser embankments followed in due course, and the planting of many trees, shrubs, and roses on the earth banks rising from their summits ensures the complete beauty of the views from the lower windows of the house. Above the tops of the banks and shrubberies the distant views of hills and trees extend to a wide horizon; and cutting off the view of the base of the hill immediately under the house in no way impairs the landscape.

When quarrying operations were completed, the lowest part of the excavation was transformed into a lake by the provision of an impervious basin of concrete from 10 in. to 2 ft. 3 in. in depth, the water being supplied by turning the course of a natural stream running down the paddock, and making it leap in a waterfall down the cliff face of the quarry. At the other extremity of the lake an outlet has been arranged whereby the water regains its old bed at the lowest corner of the grounds. On the lake a sailing model of a full-rigged ship will make voyages from bank to bank.

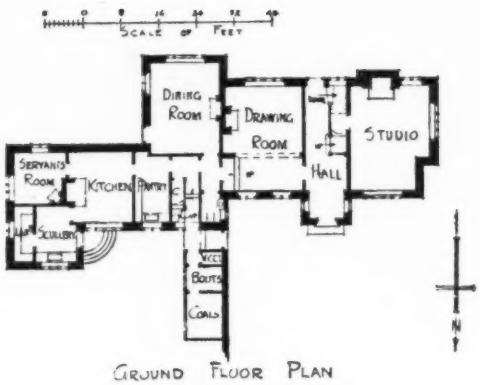
The artistic value of the alterations in the level of different parts of the site is enormous. The illustration (page 292) shows a corner of the house as seen from the banks of the lake, and with the windows of the guests' room and boys' bedroom half hidden by the branches of a magnificent horse-chestnut tree which was made a focal point in the whole design. The ground level at the root of the tree had to be maintained if the tree itself were to be saved, and its preservation regulated the disposition of all subtractions and additions of material in excavation and embanking.

The elliptic sweep of the breast-wall bounding the croquet lawn, shown on page 293, acts as a substantial base to the architecture of the house. Stone construction effects the interior of the house but slightly. An antique baronial effect was not sought for and the Runcorn stone mullions and the Hopton Wood stone used in fireplaces and window boards owe their places in the scheme to the ease with which they can be kept clean without recourse either to the brushes wielded by the house-painter or the black-lead brushes of the housemaid. It is hoped to describe the labour-saving appliances in this up-to-date stone house in a future issue of THE ARCHITECTS' JOURNAL.

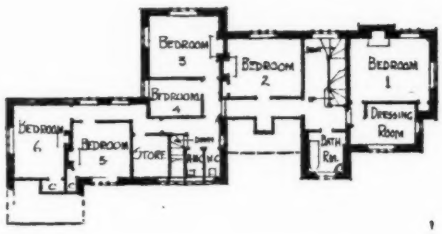
Whitton Grange, Rothbury, Northumberland, erected to the designs of Messrs. Mauchlen and Weightman, illustrates another type of house in which the squaring of the individual blocks of stone has limited the opportunities for exploiting rounded forms and has brought the composition more nearly within range of the usual practice of the builder in brick. The plan does not immediately and obviously proclaim the material, as was the case with the house in Argyllshire, though once the elevations have been seen, the appropriateness of the forms shown on plan for execution in wrought stonework will be freely recognized. The rounded staircase, the thick walls, and the mullioned windows combine with the massive chimney-stacks to suggest stone as the material of construction, though without the emphasis that was possible and appropriate in the rubble-built structure.

In the treatment of the elevations a more subdued scheme of colour and texture has been adopted in which light-coloured mortar joints of uniform width play an important part. Finely dressed stonework in the mullions, heads, and sills of the windows surround the dark panes of the leaded casements and separate these points of deepest dark from the medium tone of the slightly-roughened surfaces of the blocks used for the body of the walling. In this design

"Drakestone," Stinchcombe, Gloucestershire.
By Oswald P. Milne. The porch.



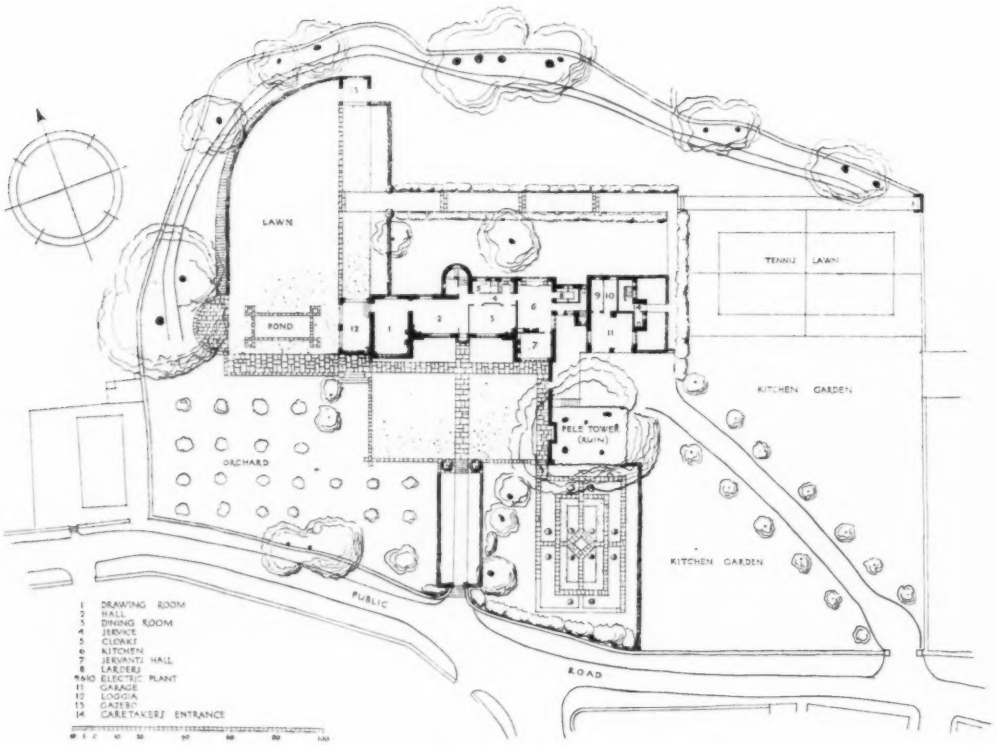
GROUND FLOOR PLAN



FIRST FLOOR PLAN

"Drakestone": the west end.

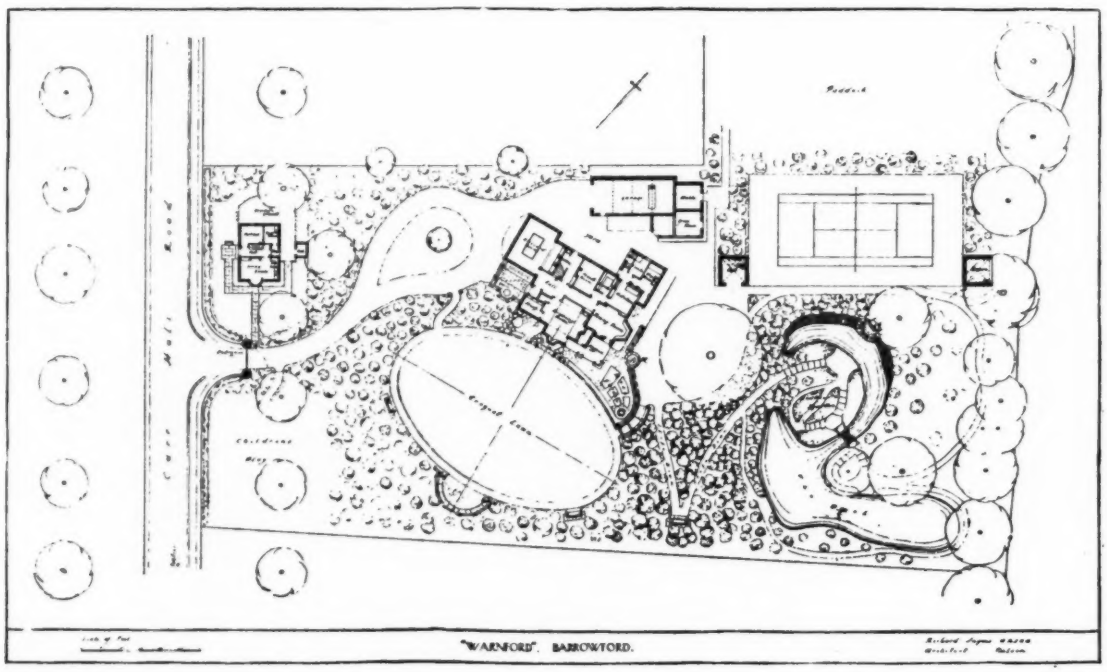
Whitton Grange, Rothbury, Northumberland. By Mauchlen and Weightman. The main front.



Whitton Grange. Above, the entrance. Below, the forecourt.

"Warnford," Barrowford. By Richard Jaques. The east front.

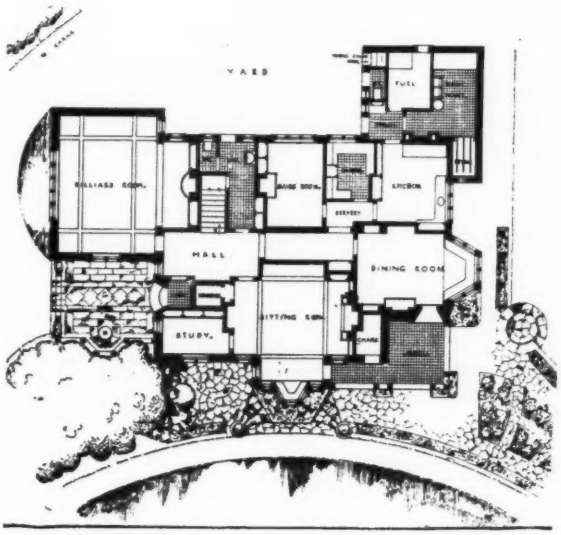
the division of masses into equal halves also appears in some places, though the moulded string course over the ground-floor windows leaves a greater expanse of wall above than below. As foliage springs up in the flower border provided for the purpose at the foot of the wall, the proportion of colour masses will be still further improved, though it may be questioned whether the string course is really necessary to the artistic scheme. From some distant points of view it has the unfortunate effect of making the roof count as a band of colour equal in width to the height of the masonry of the first floor from string course to eaves, and these views are distinctly less pleasing



"Warnford." A view from the south-east. Below, the plans.

than others in which perspective foreshortens the roof slope and brings out a less monotonous proportion. The arrangement of casements in single units and in groups of twos, threes, fives, and double threes seems to indicate an open mind on a question which is really worthy of a decision. Should odd numbers and even numbers be grouped in the same building? The masonic character of the façade has been carried into the stone steps, pavings, piers, and retaining walls in the garden, and stone forms the curb to the pond at the west of the drawing-room loggia. Stone also appears in the ruins of the old Pele tower, which forms one boundary of the rose garden.

Stonework of an intermediate character between the ashlar of "Whitton" and the rougher-textured rubble of the house in Argyllshire appears in "Drakestone, Stinchcombe, Glos.," where Mr. Oswald P. Milne, the architect, has arranged an interesting mesh of light-coloured mortar joints in connection with roughly-squared rubble blocks, and has produced an effect somewhat reminiscent of a much-magnified replica of the crazes upon the surface of



an antique tile. Here, again, the forms of the constructional features do not differ extremely from those suitable for use with brick, and the casement windows have been provided with wooden frames and projecting courses of roofing tiles to throw the water off at their heads and sills. Light-coloured paint on the frames and window bars, and light curtains within the rooms, carry the tone value of the mortar joints throughout the whole composition and make a most valuable contribution to unity of effect. So pleasant is this insistence upon weaving the high key of colour in joints and window bars across the faces of the building, that the dark wood of the solid doors is somewhat out of place—as if it belonged to another scheme.

The glazed door with its light-coloured bars is so much to be preferred that a similar colour treatment suggests itself in connection with the entrance front. Another door, which would gain immensely from a coat of light paint, is the amusingly squat one beside the garden steps. This has no doubt been left dark in order that it may not be conspicuous, but its lack of distinction where everything else is blessed with this fine quality is enough to guarantee that it will show up as a dismal blot of shadow where shadow is not altogether desirable. The broken shade of the flowers and of the stone parapet upon the flight of steps is most valuable, but, to the right of this, the light mesh of stone joints and of window bars might well be carried on around the sunk portion of garden. A roof with exactly the right slope to maintain a balance of proportion with the rest of the building has been covered with slabs of interesting texture arranged in courses graduated, in conformity with the good old tradition, from large at the eaves to small at the crown. The window grouping in the gable shown on page 289, comprises sets of two, three, and four casements, but in this fortunate house the effect is admirable, and there is no need to theorize on the subject further than to point out that the three superimposed windows are arranged to form a graceful vertical composition.

Following are the names of the contractors and sub-contractors of some of the stone houses illustrated on the preceding pages :

House in Argyllshire, N.B. The general contractor was Mr. McAlpine. Mr. R. K. Pearse supplied the casements.

"Winter Field," Melbury Abbas, Dorset. General contractors, Messrs. Norman and Son, Fairfield Road, Blandford; sub-contractors, Old Delabole Slate Co., Cornwall, slates; J. Wontner, Smith, Gray & Co., London, E.C., central heating; F. H. Wheeler, London, electric wiring; Dent and Hellyer, London, sanitary fittings; Wm. Pearce and E. Cutler, Ltd., Birmingham, casements.

"Warnford," Barrowford, Lancs. Contractors, T. Dent and Sons, Nelson, excavation, foundations, and slate; Whitaker and Clegg, Ltd., Burnley, Yorkshire stone slates; W. F. Spencer, Oldham, central heating and stoves; Bell Fire Co., Northampton, grates; Nelson Corporation, gas fixtures and gasfitting; F. Lyons, Nelson, electric wiring; F. and C. Oslers, London, Galworthys, electric light fixtures; T. Rycroft, Nelson, plumbing; Shanks & Co., Manchester, sanitary fittings; Leggotts, Bradford, door furniture; Doodson and Bain, Ltd., Manchester, casements and window furniture; S. W. Francis & Co., London, rolling shutters; John Tann, fireproof doors; H. H. Lockwood, Nelson, plaster; Russell Bros., Nelson, joinery; T. Dent and Sons, Nelson, stonework; J. Davies, Nelson, marble; Pilkingtons, Clifton Junction, tiling; S. Broadhead and Son, Huddersfield, shrubs and trees.

"Warnford": the sitting-room. The stone mullions show themselves in the room, and the window boards are of Hopton Wood stone.

THE COMPETITORS' CLUB

[*Last week* SENESCHAL, *the well-known architect who conducts this department, gave a critical summary of the conditions governing the competition for the West Bromwich Permanent Building Society's headquarters. In this issue he resumes the series of discussions which began in our issue for January 13. The subject of which he treats below is one of unusual interest to all who concern themselves with architectural competitions.—Editor,* A.J.]

A CRITICISM

A CORRESPONDENT invites us to give a detailed criticism of the successful design for the Newcastle Police and Fire Station, and for our guidance recites sixteen specific instances in which he considers that this design fails to provide the ideal arrangement.

As the other competitive plans have not been reproduced, and as we doubt if our readers would find it worth their while to embark on a detailed study of these, it is impracticable to discuss the defects referred to seriatim, and it would be preferable to treat the question on more general lines.

Starting with the assumption that all the objections raised are valid ones, before casting a doubt on the soundness of the award it must be shown that one or more of the other designs avoided these without failing on some more important issues. It is rare, particularly in planning for a building of this composite character, that any scheme can be perfect, and the problem the assessor has to face is, which of the schemes exhibits the best general arrangement and the fewest or the least important defects. Without doubt, in such cases, there will be some element of chance owing to the varieties of attitude that different minds take towards life and its activities; thus those whose temperament is more nearly akin to that of the assessor will be more favourably placed than those holding, consciously or unconsciously, different views.

These risks are inherent in the competition system, and are only partially eliminated by those who confine themselves to taking part when they believe that the assessor has some degree of sympathy with their own point of view. Others there are who endeavour to play up to the known characteristics of an assessor, and have sometimes succeeded by so doing; but this is a dangerous game, as if the assessor is sufficiently introspective to detect it, he is more likely to be antagonized than propitiated.

Coming back to Newcastle: without in any way impugning the award, it may be said that the successful design is not an ideal one from several points of view. Possibly what an architect would regard as ideal was not attainable under the conditions of the competition; to begin with, the site is of an ugly shape, and this could not be materially qualified as every inch of frontage was apparently needed. Then the differing character of the accommodation on the various floors required that the structure should be utilitarian rather than architectural in character, with the whole of the superstructure carried by beams over unobstructed voids underneath. Both these demands are at variance with those which can be made architecturally expressive, and, consequently, probably only those who concentrated on a solution taking practical and economic lines secured a foremost place in this competition.

Moreover, a matter that this and other competitions bring to mind is the importance of adopting a scheme that can be easily and clearly read. Usually it may be affirmed that the best solution provides a plan possessing these merits: but it may have been noticed that when the decision is doubtfully balanced it is almost invariable that the design reading the more easily gains the day. If one pictures the assessor with a vast number of designs before him, a large proportion of which demand careful analysis before their relative positions can be accurately determined, it is easy to conceive the strong appeal that one laid out on direct and systematic lines must make, and that its orderly and regular pattern may condone quite a number of defects if these be of a minor character, and are capable of being excused either as non-essential or capable of rectification. Striking instances of this will be observed if any of our readers care to look up the original competition plans for the London County Hall or the Board of Trade Offices on the Embankment (subsequently abandoned). In the first case the building has since been entirely replanned, following lines having a similarity to those of some of the other competitive schemes, while in the second the architect risked a very free reading of the conditions in order to secure simplicity, a characteristic which has made most of his competition designs very valuable as exemplars of the importance of this factor in competitive work.

It is, perhaps, hardly going too far to say that in important competitions, a clear and well-defined distribution of the organic parts of a building takes second place only to the selection of the right axis in which to place them. Not until after these have been determined is it worth while to study such details as the grouping of rooms and economies in construction and arrangement. A frequent and fatal failing is an obsession with these before a broad, general conception has been evolved. While it must be recognized that there will inevitably be differences in the attitude of assessors, one tipping the beam a little this way and another that, they will be almost unanimous in giving a full measure of appreciation to the qualities of directness and simplicity.

SENESCHAL.

COMPETITION CALENDAR

The following competitions are announced with the full approval of the R.I.B.A.

Wednesday, March 31. New offices for the West Bromwich Permanent Benefit Building Society. Open to practitioners within fifteen miles of Birmingham. Assessor, Mr. W. A. Harvey, F.R.I.B.A. Premiums, £100, £75, and £50. Particulars from Mr. J. Garbett, Secretary, 301 High Street, West Bromwich. Deposit £2 2s.

Thursday, April 1. Public Hall, Topsham. Premiums £50, £40, and £30 respectively. Assessor, Mr. Walter Cave, F.R.I.B.A.

Friday, April 30. Australian National War Memorial. Villers Bretonneux, France. Open to Australians. Particulars from High Commissioner's Office, Australia House, Strand. Deposit £2 2s.

No date. Conference Hall, for League of Nations, Geneva. 100,000 Swiss francs to be divided among architects submitting best plans.

No date. Manchester Town Hall Extension. Assessors, Mr. T. R. Milburn, F.R.I.B.A., Mr. Robert Atkinson, F.R.I.B.A., and Mr. Ralph Knott, F.R.I.B.A.

No date. Isolation Hospital for Infectious Diseases, Doncaster. Assessor, Mr. T. R. Milburn, F.R.I.B.A. Particulars from Mr. W. Bagshaw, Town Clerk. Deposit £1 1s.

The following competitions have not as yet been brought to the notice of the R.I.B.A.

No date. Café in the Mooragh Park, for the Ramsey Town Commissioners. Particulars from Mr. J. Bell, clerk, Town Hall, Ramsey.

No date. Open Air Bath, Morecambe. Premiums, £100, £50, and £25. Particulars from Town Clerk.

No date. Secondary School for Girls, Worcester. Premiums, 100 guineas and 50 guineas. Assessor, Mr. Herbert T. Buckland.

THE MODERN BATHROOM

BY WILLIAM W. WOOD

iii. THE BATH, BASIN, AND FITTINGS

In the all-mosaic bathroom the bath should, of course, be in mosaics. Another excellent material for a sunk bath, if rectangular, and in fact for the whole bathing apartment, except the ceiling, is marble. A bath of five slabs of white marble, with a white marble margin and steps, in a bathroom with the floor and the walls of black marble, greatly impresses one with its appearance of cleanliness. Turning from these more sumptuous baths—although there is an ordinary public bathing establishment in Marseilles where the private baths are of marble—to the everyday type we find hat, while the old fireclay bath and the tapered bath are doomed, the parallel-sided bath, with everything in its favour, has come to stay. The latter, being of marble or porcelain-enamelled iron, is vermin-proof, and is removable for access to the trap. The trap can be more easily reached if it is made entirely clear of the bath, and the floor-board over it screwed down. In some types the combined standing waste and overflow are away from the bath, with the trap at the bottom. An objection to the parallel bath, where water supplies are limited, is the amount of water necessary to obtain the required depth. This difficulty has been overcome by an ingenious design which gives a rectangular outline and a tapered inside.

For tenements and working-class houses the "combination bath," consisting of a bath 2 ft. 3 in. high, with a lavatory basin at the foot end, seems an ideal type. Hot and cold water are supplied through a swivel nose to basin or bath as required. This type needs only three joints when fixing, and thus effects considerable economy in plumbing. The height of the bath allows a hinged table-top to be fixed over it.

There is an æsthetic argument against the use of colours for the inside of the bath, although the different marbles available give a wide range of colours for the outside. White has a clean "look," although a soapy scum is more easily detected on a black background. There is, also, the unchangeability of a colour, the point already mentioned in connection with tiles. If a client is persuaded that he or she will never tire of a particular colour-scheme, then Messrs. Doulton & Co., Ltd., can produce a most attractive suite in ware—bath, bidet, and w.c., white inside, lavatory basin the desired colour inside and out.

Lavatory basins assume curious shapes following the conformation of beans, kidneys, etc. The really successful ones adopt geometrical forms for the bowl itself—hemispheroids, ellipsoids, etc. An old basin, and one of the most successful, is rectangular in outline, with a hemispherical bowl. One or two types of lavatory basins are particularly suited to bedroom use. Here there is a great field for coloured ware, and with a bordered tile background, and the tumbler holders, soap, brush, and sponge holders in ware screwed to nickel-plated brackets the *tout ensemble* can be made very attractive, and in harmony with the furnishings and decorations. An oval bowl, with an oval onyx top on a mahogany stand, in the Sheraton manner, makes a piece of furniture out of a basin. The design of the woodwork is, of course, purely a matter of individual taste. If it is desired to subordinate the purpose of the lavatory entirely to the furniture of the bedroom it can, of course, be enclosed in an oak or mahogany casing, the taps and bowl hidden by a hinged lid when not in use.

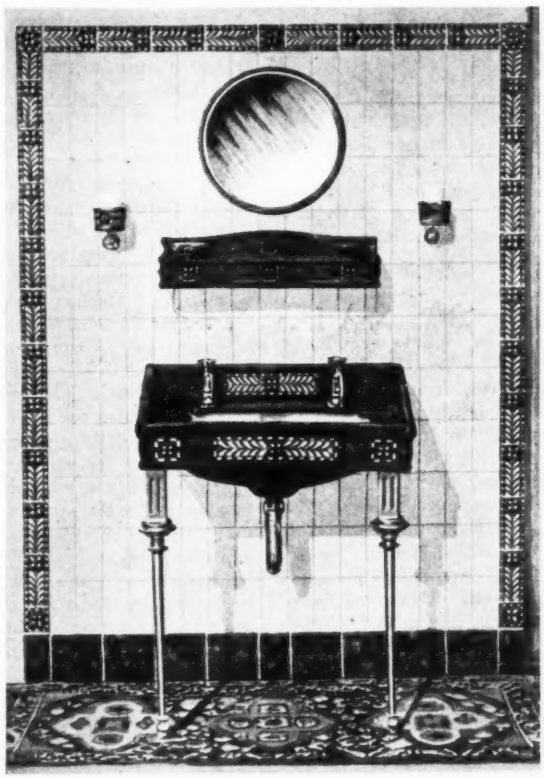
The accompanying illustration of a toilet room, by Mr. Clough Williams-Ellis, shows a good example of a bathroom w.c. The seat, cover, and casing of the W.W.P. look well in mahogany, or the cover-flap can be caned. Alternatively, the whole may be white enamelled, and if the W.W.P. is white porcelain enamelled I think the most hygienic, and at the same time quite pleasing, material for the seat and cover is pearwood. There is very little variation in the design of bidets, except that on the grounds of cost some are with, and some without, the spray.

A toilet room. By Clough Williams-Ellis.

Of the three types of shower probably the one fixed over an ordinary plunge bath is the most popular. Plate-glass and Vitrolite screens are the most usual, and a novelty is provided by one firm of manufacturers in a zinc screen fitted round the foot of the bath, white metallic inside and out, with perforated vertical pipes at intervals round the inside, forming a body spray. All three supplies of water are controlled by "hot" and "cold" valves marked plunge, shower, and spray respectively. An ingenious arrangement of taps and head shower—or shampoo fitting, as it is sometimes called—is one in which the hot and cold supplies enter the basin through a common nozzle, when the shower-arm back is against the wall, and through the spray when the rose is over the bowl. For a shower bath, pure and simple, it is only necessary to have a rose pendant from the ceiling, with the supply valves arranged in a panel in a convenient position on the wall, and all the piping concealed in chases behind the marble or Vitrolite. Roses are usually of copper, pottery, or nickel-plated brass.

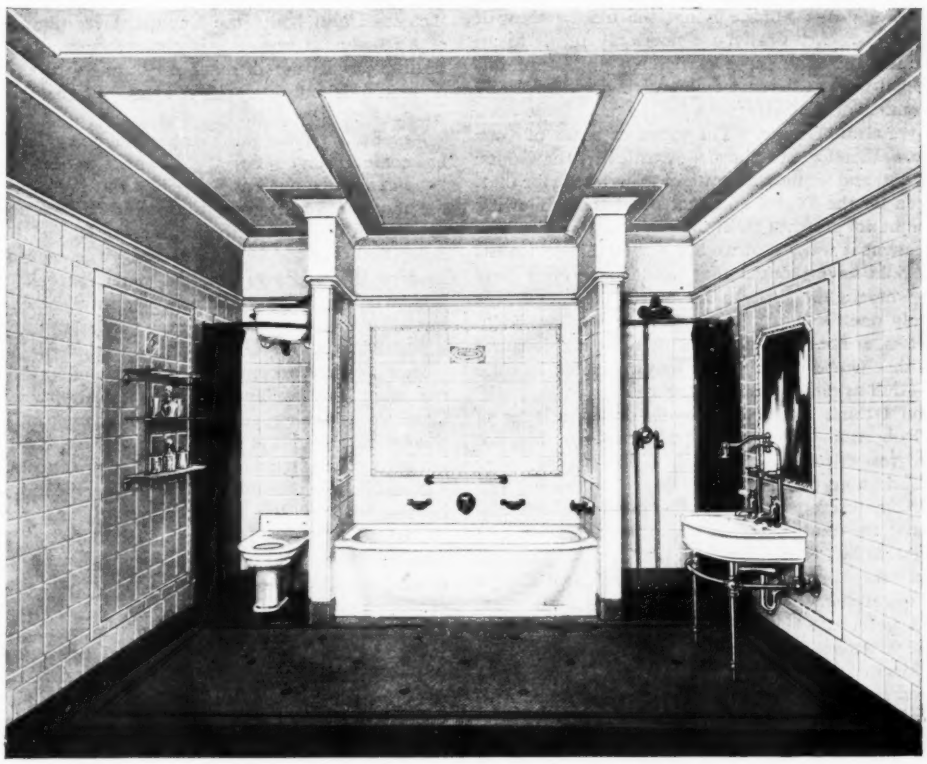
Towel-rails are usually nickel-plated, but sometimes, owing to the nature of the water, it is desirable to use copper. The heat of the water turns the copper the colour of a penny,

and the effect is quite pleasant. A neat—probably the neatest—way of fixing a towel-rail is for the flow and return connections to be made vertically through the floor direct into the legs. No valve—other than an ⅛ in. air-cock—is required, and with the help of detachable floor-plates the connection is so strong—there are also no elbows to leak—that even wall-stays are unnecessary. The variety of choice in taps is amazing. All, no doubt, have their advantages and disadvantages; perhaps my taste in valves is conservative, but as a matter of personal preference I would choose the ordinary capstan-headed, screw-down type. They sometimes want a new washer, but otherwise they are good servants. Sponge bowls can now be had in delightful white or coloured pottery, *tout en suite* with the robe hook, towel-rail and posts, and the toilet accessories shelf and brackets.



The lavatory and the bath are now provided with soap sinkings, and although some of the former drain into the overflow, it is more hygienic to have them with a good fall into the basin, or bath, as the case may be. Overflows exist in many and various forms. Probably the simplest, easiest to clean, and least troublesome is the weir type, with a removable ware "stop," having a ring cup at the top. Tumbler-holders may be nickel-plated or in ware, screwed to ware, glass, marble, or Vitrolite backs, with glass or opalite shelves on nickel-plated or Warbla brackets. Towel-rails may be had in pottery, opalite, glass, and Warbla. Practically all bathroom accessories are obtainable in the last-named material, which is made of dried milk and is practically unbreakable. Porcelain enamelled iron basin supports are as good as any, simple in design, and if made to take a towel all the better. There are innumerable kinds of wastes, but the simplest are invariably the best.

All furniture should be capable of resisting the effects of steam, and therefore should be covered with an enamel taking a hard surface when dry. Table tops should be glass or cork covered, and chairs, stools, etc., should be simple in design, with cork seats. Door furniture of the pottery order is as good as any, and gives an opportunity for the use of colour. Lighting—assuming electricity—should be of the cabin variety, the frame screwed to he ceiling and the bowl hinged. If any other method is adopted a coloured shade may prove very effective.



Above, a bedroom lavatory suite in coloured ware by Doulton and Co. Below, a bathroom by Davis, Bennett and Co.

CORRESPONDENCE

"THE SUPERFLUOUS ARCHITECT"

[*The leading article on this subject appeared in our issue for January 13, Mr. Eric Gill's rejoinder in January 27, and replies from our leader writer, Patrick Abercrombie, A. Trystan Edwards, Howard Robertson, William Woodward, Manning Robertson, William Harvey, S. Rowland Pierce, Bernard Rice, E. Edward Beaumont, and W. S. Purchon in our issues for February 3 and 10.—Editor,* A.J.]

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—It will, of course, be impossible to reply to your many correspondents as their various points of view deserve.

I am grateful for the sympathy of Professor Abercrombie, and I am pleased to note some measure of agreement with me in the letters of Mr. Howard Robertson and Mr. Rowland Pierce. No doubt Mr. Purchon "only did it to annoy" when he compared my letter to "the chatter of the 'eighties and 'nineties," and I *was* annoyed, so he scores his point (I'm getting over it now). But, of course, it is not true. The protest being made to-day is different in kind from that made by Ruskin and Morris. For, on the one hand, we are much less blinded to-day by the glamour of the artistic product of the Middle Ages, and, on the other hand, we are much less scornful than they of the philosophic achievements of that time. The artistic product of the Middle Ages we now see to be comparable in kind to that of similar periods in India and China, and wherever religio-philosophic concepts of life have been widely accepted and acted upon (see, for instance, A. K. Coomaraswamy, introduction to catalogue of the Indian collections in the Boston Museum of Fine Arts). It is true that European Medieval art is Christian art—"the art of man redeemed"—and is, therefore, redolent of what, to Christians, seems a more reasonable philosophy—a truer view of man's place in the universe than that of the Hindus and Buddhists, but, artistically, the Middle-Age Europe is not the unique thing it seemed to our fathers. Artistically, we now only use it as an example because it is the handiest—everyone has some acquaintance with Medieval work, whereas comparatively few have any intimate acquaintance or sympathy with Indian or Chinese work or that of pre-Periclean Greece. The gibes of some of your correspondents are, therefore, ill-aimed. Artistically, the Gothic revival is played out, and we may be grateful to architects for that. If it had not been for the Pugins and Scotts and their following thousands we might not even yet be in the position to realize how foolish an experiment it was. No; we are not Gothic revivalists to-day, and I should have thought that would have been clear from my letter wherein the random list of (to me) admirable works named only one Gothic building. The power station in Lots Road, Chelsea, is not a Gothic building in the architectural sense, and even that would obviously be better without its little embellishments—dull as ditch-water as they are.

For this reason I think I may pass lightly over the letter of Mr. Manning Robertson. He is old-fashioned. He has not followed the progress of criticism whereby it has become clear that ornamental additions cannot be done merely to order. The order must find some correspondence in the mind of the craftsman. If it does not, the result is a dead thing, and, later, a putrid thing. To suggest, as Mr. Robertson does, that I, a stone carver, wish to "eschew every form of ornament" is, well, is it likely? No; I want stone carving. What I do not want is mechanical ornament. And as for not being able to design a prison satisfactorily without ornament—there, again, Mr. Robertson shows himself old-fashioned. Of course, it can be done. A jolly fine prison could be done without a scrap of ornamental business—what about Porchester Castle? But if the prison authority or even the architect (please note) chose to commission me to do a statue of St. Peter *ad Vincula* (shall we say?), and they kindly provided a niche, why I'd be only too glad of the job, and would be as willing as anything to do my best to do something fitting, both to the subject of the sculpture and to its architectural environment. If there were pillars I would carve the capitals, if they had any, and, if it came to that, I would carve the plain walls all over with histories of famous villains—showing how they all got "copped" in the end.

In regard to Mr. William Harvey's letter. As immediately practical (i.e. "first aid") politics there is hardly a word with which I disagree. What Mr. Harvey says about the intimate relations existing between the Medieval client and his builders is very much to the point. There was a similar intimacy between the Medieval king and his subjects. The English aristocracy succeeded eventually in destroying the popular monarchy and substituting "Cabinet rule." Similarly in building, the architect has been interposed between the client and the master builder. So also the Privy Council has been interposed between the Church and the people!

Whether this is right or wrong, good or bad, it is so. Some people may think the situation entirely contrary to the nature of man and his destiny—others, having no clear idea as to man's nature nor any conception of a destiny, may applaud it. But the fight between those who, in the words of Sir Josiah Stamp, think freedom better than sobriety and those who think sobriety better than freedom; between those who prefer wild flowers with swamps and occasional and excellent hot-houses and those who prefer all hot-houses, no swamps, and very rare and dilapidated wild flowers; between those who think man's soul is more important than his body and those who, doubting whether he has a soul or denying it outright, think his body the only thing to worry about, between those who think you can have it both ways and those who know you can't, will not take place, I suppose, in the pages of THE ARCHITECTS' JOURNAL.

But let us get back to the question of servility. That's the main difficulty. Admittedly this is a servile age. That is to say, it is an age in which the workman in the mass is servile, and we legislate to keep him so. The servile state is here and now, and it is a more intense slavery than that of Rome or Egypt because, whereas the slaves of antiquity (or even of the United States) were "chained" in body, the English slave, though nominally free of his body (at present), is chained mentally. Modern industrialism, by its use of machinery and by the division and subdivision of labour, has achieved this. The ancients knew only the whip.

Never mind about this. Accept it if you will. Say "machinery has come to stay." Say "you cannot put back the clock." Say "we cannot be ancient Britons." But deny it in the face of all the modern world—well, who could? Mr. Purchon compares the British Museum with the Parthenon, and the comparison is apt. Both are the work of slaves. The only difference is that modern British slaves are bad stone carvers, but can still (at present) go on strike. The Athenian slaves could not go on strike, but they had not been degraded by a century of mechanical industrialism and were pretty good workmen.

Now, as I say, accept this servile state of ours if you will. That's not what I'm up against in THE ARCHITECTS' JOURNAL. As Cardinal Manning said: "All human conflict is ultimately theological," and it is pretty clear that ultimately the differences between your correspondents and me are theological differences. I do not believe that man, *as such*, is a servile animal. I believe he has free will, and has, therefore, responsibility for his acts and for the willed effects of his acts (i.e. the effects which he intends). Also, I believe, that he has responsibility for the intellectual quality of what his deeds effect. I understand the theological implications of such beliefs, and they are quite at variance with modern materialistic philosophy. I say never mind. THE ARCHITECTS' JOURNAL is not the arena for a fight between rival theologies. But when it comes to æsthetic criticism and to the observation of the works of man it is a different matter, and I say you cannot have it both ways. You cannot have the full development of modern machinery and, its necessary concomitant, the degradation of the workman to the level of a mere tool, and at the same time have that quality of good carving and ornament which depends upon the existence of generations of men uncorrupted by a

mechanical commercialism. Nor, even among architects, can you have that quality of architectural design (as in the Parthenon or in Chartres Cathedral) which depends upon the existence of a high level of culture permeating a whole people. Under modern conditions the architect of culture tends as much to be a hot-house plant, a lap-dog of the rich, as does the artist and craftsman like myself. But whereas I recognize the state of affairs, your correspondents do not seem to do so. They *will* go on trying to eat their pudding and have it. They *will* go on patting themselves on the back, and talking about the progress of architecture in Tennysonian style—" on stepping stones . . . to higher things "—whereas anyone with half an eye can see that, short of scrapping this civilization, there's nothing to be done (as far as building is concerned) but build plain buildings—only using such carving and painting as can be got from responsible people—workmen as responsible for their carving as the architect is for his plan.

There is not *properly* any such thing as applied ornament in the modern sense. If you put a pattern on a priest's vestment it should not be to make it ornamental, but because the vestment is better so—because that particular pattern is appropriate to such a garment. If you make your pattern out of embroidered *iktheosauri* it will be inappropriate ornament. The embroiderer's art is not ornamenting, but doing in embroidery what is *wanted*. So with all so-called ornament. It starts with necessities, appropriateness. Even the famous " dog tooth " did not start as an architect's ornament (i.e. something applied to order), but was originally a carver's invention. As for " full-size details," there could not have been such things simply because there was no paper big enough. Granted that, as Mr. Howard Robertson might have said, the necessity of one age becomes the ornament of the next; but this is a tendency to be resisted, not wallowed in. I simply cannot understand (and surely a sculptor chap like me may be allowed to take architects thus into his confidence) why architects do not see the beauty, the intellectual delight, of plain walls, square block buildings like Queen Anne's Mansions (though the utilitarian has laid his hand on that and spoilt it), factory chimneys (without architectural cappings), railway viaducts, and so forth. (*Note.*—I said what I meant by the word utilitarian in my last letter—so won't repeat it.) And on the other hand, I simply can't understand how people can continue to be taken in by the ornament designed by architects and turned out by the employees of the contractor. The stuff's as different from what was done before Industrialism as Protestantism is different from Catholicism (and whether you like either or neither, you must admit they're different)—different and, yes, uglier.

Now, another point, because it's important. What about *effects?* I think Professor Abercrombie and others of your correspondents overrate the Medieval builder's effort after effect. Features that seem to us to be primarily for effect were very often not so thought of by their makers; thus the great porch of Peterborough—to the modern eye it looks like a piece of pure architectural swank. But then we think in quite different terms. From Inigo Jones onwards we have *thought* in terms of effect. We don't realize that there might be another road. Thus: does the maker of bishops' mitres make them the way he does for effect? Not much! They're made that way traditionally, and the tradition is founded on the fact that the bishop's ceremonial hat must be something mighty fine and large. It signifies all sorts of official things (many of which are forgotten). So it is with such things as Peterborough porch. It's an attempt first of all to make a really grand entrance door—a front door, and the door has become a front! But they started with the *thing*—not with the effect of the thing. That's typical of the whole difference between us and them. And as I said before, it's only because it is close at hand that we take European Medieval examples. It's just the same all over the world.

I am obliged to Mr. Trystan Edwards. I think he's done the thing very well. I'm sorry about William Morris and the Forth Bridge, but, as I said above, his sort of Medievalism is nothing to do with us. It's very interesting, that quotation from Sir Benjamin Baker. To like the arch form is a very innocent foible. Think how different it would have been if he'd said: " the Corinthian capital is admittedly graceful, so we have put as many of them on our bridge as we could without suggesting . . ," etc. As to Waterloo Bridge, what Mr. Edwards says is, fortunately for me, quite adequately answered by Mr. Howard Robertson (Oh, God! Oh, Montreal!).

In conclusion, though I apologize for the length of this letter, may I say that I think you will agree that few things are more important in practical life than an understanding between those concerned with the planning and erection of buildings and those concerned with the planning and execution of paintings, sculptures, furniture, and all the lesser arts which minister to life and crown it.

My contention is that, as some of your correspondents say, we've got to make the best of modern conditions—no crying over spilt milk—and that the best will be made when we all agree together to start with sheer reasonableness, continue with honesty, and let the end be what it may. ERIC GILL

THE TROUBLES OF THE PAINTERS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In such a controversy as the present, too much insistence cannot be laid on the fact that the present generation of young painters " consists broadly of two widely divergent sections." There is the so-called modern art section, taught by masters of the revolutionary group (sometimes out of the ratepayers' money), masters who, in true world-upheaval fashion, are trying to make us accept hideousness, malformation, and grossness for beauty. On masters and pupils their comrades in command of Press criticism lavish all their praise—with the exception of that reserved for those champions of the movement who dare not carry out in their own work the precepts they applaud in others. Comrades who have been allowed to obtain control for one another over our national art collections and art schools foist the products of these young painters on national galleries in multiple form, and award them prizes and scholarships. They appoint their " party " lecturers still further to impress the inquiring public with the value and beauty of their deplorable preferences. (I could, and I would, explain how it is that English men and women are conspicuous by their absence from the motley crowd of " modern art " producers and boosters, but it would lead one back to war-time parallels and so forth.) But these things, the mere imitations of debased alien work, do not, despite years and years of incessant booming and advertising in the Press, appeal to the taste of the healthy British public.

The other section of " the present generation of young painters," unlike those already mentioned, being sensitive to Nature and beauty, love and respect them; and give their impressions of real or imaginary things in one or another of countless ways without resorting to uglifying and distorting them quite or almost beyond recognition. These, the real artists, are adding to the world's beautiful possessions instead of to its abominations. It is they, denied the critic's aid which is their due, who are doing modern and " most wonderful work." Instead of incongruously reverting to the dead methods of ages ago and pushing them forward as evidences of their own wireless, electrical, twentieth-century inventive impulses, they continue pushing forward along the steady stream of progressive evolution. Every effort is made by many of those in power to gag and suppress the views of this honest section and its advocates. Owing to the power wielded by members of the revolutionary ring, art in this country is tyrannized over by an unpopular minority.

The extent to which an artist should adapt his productions to the requirements of the public is a difficult matter to decide, and varies with circumstances. Perhaps the ideal condition is for the artist to produce that which his instinct impels him to produce, and for the individual to patronize such an artist as produces that which appeals to him.

The artist must be free to produce what he likes, however good or bad—and take the consequences. If a person, or a committee, or a board of trustees select an artist or accept from him on behalf of a person or the public a work or works which that person

or public find abhorrent, it is the selector or accepter who is to blame and not the artist.

Architects, I feel, are not quite in the same position as painters and sculptors, for they cannot erect edifices *ad lib.* as their fancy may dictate and await chance purchasers; they have to meet definite requirements, which vary in each instance.

Until recent years the art-loving public, guided by critics so far unbiassed by the demands of their socio-politics or of publicity agency, enabled the artist who produced what he liked to earn a good living.

Nowadays the relative merit of works has no connection with the praise of, or the recommendation to purchase, them of many of the critics.

That large section of the art-buying public which has not sufficient confidence in its own judgment to purchase without taking advice, has found that many of the critics incessantly advise the purchase of things it abhors, while they denounce those that appeal to it.

Several erstwhile purchasers at our galleries have explained to me that, in addition to lack of confidence in their own judgment, they have now completely lost confidence in that of many of the critics. They "don't know where they are," so they now leave art severely alone. One of our "modern" critics recently assured me that he knew numbers of the much-advertised "modern" artists who were on the verge of starvation. It is thus evident that "modern art" boosting has failed, and has only succeeded in ruining both markets.

As to the dealers, some of them, like some of the artists and many students, have degraded themselves by pandering to debased taste in order to obtain the advertisement vital to their trade.

As to mural decoration, it is to be hoped that architects will set their faces against ugly, archaic, or "neo-Classic" designs, frequently of the "asylum-garden school," and against bulbous blobs and knife-edged distortions in sculpture as fitting decorations for twentieth-century buildings.

FRANK L. EMANUEL, President Art-Lovers' League

LINO OR A CONCRETE FLOOR

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—"Subscriber," in his query published in your issue for January 20 (page 157), admits that he waterproofed his concrete, and we may assume that by doing so he made it impervious to moisture. We must also admit that linoleum is impervious. The medium generally used for sticking linoleum to concrete is casein, which is mixed with water. If this material was used a considerable quantity of water was introduced, in conjunction with the casein, between two impervious surfaces. Now, how can he expect it to get away?

"Subscriber" was told that the water which he found beneath his linoleum was due to condensation, but it is difficult to see how water vapour could possibly condense on a surface covered with an impervious material, such as linoleum. If condensation took place it would be upon the upper surface of the linoleum.

I have been through this experience myself. In all cases I use a 1 : 2 : 4 concrete, without a waterproofing material, and this, together with a floating face, is 5½ in. thick. This in itself is quite enough to prevent the passage of damp from the ground below, whether the site is well drained or not. In cases where the adhesive material failed, in the way "Subscriber" indicates, I had the linoleum taken up. I then had both the linoleum and the concrete cleaned thoroughly, and allowed them two or three days to dry, the linoleum being left face downwards on grass in the open. It was then replaced without any adhesive material, that is entirely loose, and, so laid, it is perfectly satisfactory to-day. I am almost inclined to think that linoleum laid on concrete is better laid unstuck. A thin material is not advisable; I generally use Nairn's ¼-in. super quality, and I think many other architects use the same material. G. N. KENT

A POINT IN PLANNING

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—The publication of some of Mr. Philip Hepworth's designs affords his brother servants of the art great pleasure, even if it leaves the less gifted of them with somewhat the same feelings of exhaustion from admiration which attacked her late Majesty of Sheba on a famous occasion.

Such being the case, and our own homage to artistic powers so willing, it requires some audacity, besides seeming somewhat ungracious, to make a protest against a small defect (if one may be allowed so to call it) of planning which occurs in some of these houses as well as in far too many published plans, even those of the great and eminent now or lately among our ranks.

I refer to the position of the indispensable water closet.

There is an amusing account in Mr. Aldous Huxley's *Crome Yellow* (what an eye that man has for all for which an architect should have an eye!) of the *Privies of Crome*. He gives a fantastic account of how the owner and creator of that interesting seventeenth-century house placed his privy chambers at the very top of three high towers so that they could be both as far removed as possible from the drains, and would at the same time provide incomparable prospects over the surrounding country which . . . But I need not enter into the details at which Mr. Huxley is such an adept, it will be sufficient to draw my moral, which is: *Don't put your "privy" closets in the most "public" parts of your houses.*

The close neighbourhood of the front door might seem to be the very last position that this apartment should occupy with propriety, a position more ill-chosen, perhaps, is one which opens into the front, or main, or lounge (excuse this horrible word) hall.

The problem is difficult in a small house I will admit, but it ought not to be lost sight of. WILLIAM IN THE COUNTRY

OBITUARY

MR. GEO. LL. MORRIS

Readers of the JOURNAL will regret to hear of the death, at Whetstone on January 17, of Mr. Geo. Ll. Morris. He was better known as a writer on architecture than as an architect, though the remarkable design for an art gallery in Egyptian that, as a student, he submitted for the Soane Medallion, showed that his capacity for design was of no mean order. He was a frequent contributor to this JOURNAL in its early days, and was responsible for many articles in the *Studio* and the *Architectural Review* among other papers, and those who read them admired the charm and grace of his style. In collaboration with Mrs. Esther Wood he wrote *The Country Cottage*, which, published in 1905, was a pioneer work on cottage architecture. Among his other writings was the special number of the *Studio* on country cottages. He was keenly interested in the crafts, and for a year or two before his death had been experimenting in hand-painted tiles. For many years he had been suffering from indifferent health, but his death, from heart failure, came quite unexpectedly. He was a Devonshire man, of a warm-hearted, mercurial temperament, and took a keen interest in social questions. Those of us who knew him feel that we are the poorer for the loss of a loyal friend and an attractive personality. A. J. PENTY

COMPETITION AWARDS

Memorial to the missing dead, at Lille, for the Imperial War Graves Commission. Assessor, Sir Aston Webb. First, Mr. H. Chalton Bradshaw; second, Mr. V. O. Rees; third, Mr. James Macgregor.

Gabalfa Library, for the Cardiff City Council. Assessor, Mr. Sidney K. Greenslade, F.R.I.B.A. First (£75), Mr. Sidney Williams, L.R.I.B.A., of Borough Chambers, Wharton Street, Cardiff; second (£50), Mr. Harry Teather, the remaining partner of Messrs. Teather and Wilson, F.R.I.B.A., Andrews Buildings, Queen Street, Cardiff; third (£30), Messrs. John A. Phillips and Wride, L.R.I.B.A., 7 Pembroke Terrace, Cardiff; honourable mention, Messrs. Willmott and Smith, 4 Park Place, Cardiff.

SOCIETIES AND INSTITUTIONS

The British Academy of Arts in Rome

At the annual general meeting of the British Academy of Arts in Rome, Mr. E. Guy Dawber, President of the R.I.B.A., was elected an honorary member of the Academy.

R.I.B.A. Exhibitions

An exhibition of architects' working drawings is now being held in the R.I.B.A. Galleries, and will remain open until Saturday, February 27, between the hours of 10 a.m. and 8 p.m. (Saturdays 5 p.m.). It includes drawings lent by Mr. Thomas Hastings and Professor C. H. Reilly (Devonshire House), Messrs. Hennell and James (a house at Hampstead Garden Suburb), Mr. L. Sylvester Sullivan (building for Courtaulds, Ltd.). The exhibition is intended primarily for students of architecture; they are able to examine the drawings that a practising architect hands to a contractor, and thus afforded an insight into the methods adopted in a modern architect's office. A special students' evening will be held at the exhibition on Tuesday, February 23, at 8 p.m., when it is hoped that the architects who have lent the exhibits—or their representatives—will be present in order to explain the drawings to students. Refreshments will be provided and no cards of admission are required.

It is proposed to arrange an exhibition of drawings, prints, plans, and photographs illustrative of garden design in the R.I.B.A. Galleries from April 7 to 21. It is hoped that the exhibition will include designs of gardens both old and modern, public and private, British and Continental. A lecture on garden design will be given by Mr. F. Inigo Thomas, F.S.A., on April 14 at 5 p.m. Members of the R.I.B.A. who have in their possession prints, photographs, and drawings (measured or otherwise) which are suitable for this exhibition are invited to send them in for the consideration of the selection committee. The following conditions should be carefully noted: (1) The exhibition is intended primarily to be one of garden design and planning, but illustrations of garden architecture and ornaments, such as orangeries, pergolas, and statuary may be submitted if desired; (2) exhibits should be in reasonable good condition for exhibition purposes; (3) photographs should be as large as possible (unless they are submitted merely to illustrate a plan), and should be mounted. They need not be framed; (4) all exhibits should be clearly marked with their title and the owner's name and address; (5) exhibits must be addressed to the Secretary, R.I.B.A., and must be received by him not later than March 20; (6) all exhibits will be insured against all risks while in the possession of the R.I.B.A.

The Northern A.A. at Dinner

The annual dinner of the Northern Architectural Association was held at Newcastle. The chair was occupied by Lieut.-Col. G. Reavell, O.B.E., F.R.I.B.A., president of the Association, who, in proposing the toast of "Our Municipal Corporations," said that a great problem was presented to their governing body in dealing with the large mass of traffic which would be created by the new bridge. They had considered that problem soundly and well, even co-opting three members of that Association, and they had eventually decided on the scheme which, by public vote, had been defeated that day. He wished that every voting paper had been headed: "Opportunities missed are seldom recalled," and could only hope that Newcastle would one day rise to its opportunities. The new street would have been a permanent asset for Newcastle. The toast of "The R.I.B.A. and Allied Societies" was proposed by Major Robert Temperley, M.A., O.B.E., D.L. (chairman of Council, Newcastle Society), who expressed his pleasure that great educational bodies were prepared to co-operate in endeavouring to find the best way not only to produce good architects, but also to educate public opinion as to taste in architecture. Major Dosser (president of the York and East Yorkshire Society of Architects), replying, said that co-operation between the allied societies was valuable in the direction of unity of practice and professional conduct.

PARIS EXHIBITION AWARDS

Among the awards made in connection with the Paris Exhibition, 1925, were the following:

ARCHITECTURE: EXHIBITORS

Hors Concours: J. M. Easton and Howard Robertson.

Grands Prix: Dr. R. Anning Bell, R.A., Sir John Burnet, R.A., A. K. Lawrence, George Sheringham.

Diplômes d'Honneur: Maxwell Ayrton; Baillie, Scott and Beresford, Maurice Grieffenhagen.

Gold Medal: Sir Reginald Blomfield, R.A., Professor A. E. Richardson, J. H. Sellers, Sir John Simpson, K.B.E., and Maxwell Ayrton, Louis de Soissons, C. F. A. Voysey.

Silver Medal: Aumonier and Sons, Brierley and Rutherford, E. C. Frere, Hennell and James, Edward Maufe, Oswald P. Milne, Sir Giles Gilbert Scott, R.A.

Bronze Medals: H. P. Adams, C. Holden and Leonard Pearson, Robert Atkinson, D. Carter, Clough Williams-Ellis, Annie Fisher, Victor Hembrow, Mary McDouall, T. S. Tait.

Mentions: Barbara Game, Cynthia Kent, Marjorie Templar.

ARCHITECTURE (COLLABORATORS)

Diplôme d'Honneur: G. R. Kensit (British Section).

Gold Medal: M. Chatenay (Easton and Robertson).

Bronze Medal: D. Carter (Grand Palais).

STREET ART (EXHIBITORS)

Grand Prix: Herrick.

Gold Medals: Battle Urban District Council, Baynard Press, Birmingham Guild, Broadstairs Urban District Council, Dorothy Hutton, Johnson, Edward Weiner.

Silver Medal: Bartholomey Maynard.

TRADE AND CRAFT

The exhibits of Messrs. Ruston and Hornsby, Ltd., of Lincoln, engineers, which will be shown running at the British Industries Fair, to be held at Birmingham until February 26, include the firm's cold-starting horizontal oil engine, 130 b.h.p., and their two-stage air compressor. The former engines are made in sizes from 16 to 340 b.h.p., and they are claimed to run, without alteration, on a wide range of fuel oils. Among other claims made for these engines are that the consumption of fuel and the cost of maintenance are low, that they can start from cold under any conditions, and that they can be continuously operated over long periods. Besides being self-lubricating, they can be started on petrol, and run on paraffin, or, when desired, run as a petrol engine.

The resumption, last year, of the publication of *Holophane Illumination*, temporarily suspended during the vast war and post-war activities of Messrs. Holophane, Ltd., provides architects with a valuable summary of modern developments in illuminating engineering. Five copies of the Journal have already been published, and each issue deals with the lighting of one particular class of buildings, i.e. churches, schools, streets, industrial premises, and modern shops, and contains special articles dealing with the subject from the architectural, psychological, scientific, hygienic, and other standpoints. Striking illustrations are also included of views taken by artificial light, and these, together with the text, show, in an effective manner, how the latest developments in the Holophane service in illumination can be applied successfully in practice. The firm have long recognized that their service in illumination is based not merely on the supply of certain lighting appliances, but on the application of principles of good illumination. Thus, those of the public who peruse *Holophane Illumination*—a copy of which can be obtained from the firm at Elverton Street, Vincent Square, London, S.W.1—will secure a wider recognition of the value of good lighting and a better understanding of the principle on which successful applications in practice are based.

THE WEEK'S BUILDING NEWS

More Houses for Beeston

At Beeston twenty-three further houses are being built under the Council's housing scheme.

Housing at Lochend

Permission has been granted to the Edinburgh Corporation to erect thirty-six two-apartment houses at Lochend.

Municipal Buildings at Leith

The Edinburgh Town Council is considering a proposal to erect a town hall and library at Leith.

Housing at Bourne

The Bourne Town Council has been recommended to purchase land on which at least twenty houses could be erected.

Extensions to a Glasshoughton School

The Ashton Road Council School, Glasshoughton, is to be extended at an estimated cost of £10,500.

More Houses for Rotherham

The Rotherham Corporation has decided to erect seventy-two houses on the Doncaster Road site.

A New Bridge for Glasgow

The Glasgow Corporation has approved plans of a proposed high-level bridge over the Clyde at Finnieston at an estimated cost of about £1,000,000.

A New Arterial Road for Shropshire

A scheme has been initiated by the Cleobury Mortimer District Council for the building of a new arterial road to Highley at a cost of £27,000.

Housing at Sunderland

The Sunderland Town Council projects the building of 1,500 artisan dwellings, and has approved of plans for the construction of 777 houses assisted by private enterprise.

New Buildings at Rawmarsh

The Rawmarsh Urban District Council has decided to erect new public baths and offices and a concert hall. The cost will be £19,645.

An Open-air School at Barnstaple

The Barnstaple Education Committee has been asked to carry out during 1927-30 the erection of an open-air school at an approximate cost of £3,000.

120 Houses for Alloa

The Alloa Dean of Guild Court has granted an application by the Town Council to erect 120 houses at an estimated cost of £55,000.

Kingston's Hospital Scheme

The Kingston Board of Guardians has decided to proceed with a scheme estimated to cost £100,000 for the enlargement of their hospital and the erection of a nurses' home.

Sanction for Torquay's Housing Scheme

The Torquay Town Council has received the sanction of the Ministry of Health to proceed with its new housing scheme, which will provide nearly 200 more working-class dwellings.

Hospital Extensions at Hamilton

The Town Council of Hamilton has decided to extend their hospital at Udston, Burnbank, by the erection of a one-storey pavilion with twenty beds, at a cost of £5,663. A laundry block, costing £3,737, is also to be provided.

Progress in Upper Renfrewshire

The Scottish Board of Health has approved of the erection of twenty-four houses of three apartments and forty houses of two apartments at Neilston. This is the first stage of a scheme for building 100 houses in that village.

Future Housing Schemes at Manchester

The Manchester City Council has under consideration a scheme for the purchase of 39 acres of land at Burnage, 32 acres of land at Gorton, and 27 acres of land at Moston for the purpose of municipal housing schemes.

The Reconstruction of Birmingham Town Hall

At Birmingham a scheme for the reconstruction of the interior of the Town Hall is under consideration. Additional seating accommodation for 500 persons will be made, and an expenditure of £36,839 will be involved.

Proposed Housing Scheme for Wirksworth

The Wirksworth Urban District Council has decided to apply to the Ministry of Health for permission to commence a housing scheme. It is understood that the site will be in the Gorsey Bank neighbourhood.

Plans for New Derby Schools

The Derby Education Committee propose to submit to the Board of Education a scheme involving an expenditure of £99,500 for the provision of a new secondary school for boys, a new elementary school, new laboratories at the girls' secondary school, and minor alterations to elementary schools.

The Reconstruction of a Yorkshire Bridge

The West Riding County School has recommended, subject to satisfactory assistance from the Aire and Calder Navigation Co., Ltd., the contribution of a sum of £20,000 toward the cost of widening and reconstructing Cooper Bridge and Cooper Canal Bridge.

Concrete Housing Schemes

Among the local authorities which have already definitely decided to adopt concrete housing construction schemes for 1926 are those of Barnstaple, Brighton, Crewe, Hull, Sevenoaks, Taunton, and Tilbury.

Housing Plans at Foleshill

The Foleshill Building Sites Committee recommend the purchase of land in Walsgrave Road, Binley, and other land adjoining, and has instructed the surveyor to prepare plans for the erection of forty houses on the sites. The committee also recommend the purchase of land on the Foleshill Hall Estate, Lythalls Lane, for the erection of eighty houses.

Rural Roads Grants

The Minister of Transport stated recently that the allocation of an additional £750,000 on rural roads in England and Wales promised by him in the House of Commons was to be distributed to counties and districts essentially rural in character on the basis of 20 per cent. of the approved expenditure, including maintenance, on selected unclassified roads in those areas.

The Progress of the Grampian Road Scheme

Considerable progress is being made with the initial work in connection with the reconstruction of the Perthshire section of the Great North Road across the Grampians, under the Government's £600,000 scheme. At present work is concentrated on making the necessary cuttings to straighten out the line of road and improve the gradients between the country march and Dalnamein, the cost of which is about £10,000 per mile.

Old City Chop House to Go

A famous old City chop house, the "Jerusalem," in Cowper's Court, Cornhill, is to disappear. The Jerusalem Coffee House was known as far back as the days of the South Sea Bubble, Cowper's Court being next door to 'Change Alley. It was burnt down in the great Cornhill fire of 1748, adjoining, as it did, the barber's shop in which the conflagration originated. The old place was rebuilt in 1879, and again still more recently.

The Basle Fair

The tenth Swiss Industries Fair, originally announced to open at Basle on April 7, will now be held from April 17 to 27. The Basle Fair, as it is commonly called, dates back to the fifteenth century, and is the only exhibition of its kind to be held in Switzerland. Representative of the entire range of Swiss manufactures, the Basle Fair is becoming increasingly popular among British business firms, because of the facilities it offers for coming into direct contact with Swiss importers of raw materials.

READERS' QUERIES

Cavity Walls

"Subscribers" write: "With regard to Mr. Harvey's hints concerning cavity walls, published in your issue for December 16, we should be glad to have information on the following points: Cavity walls of a width of 4½+2½+4½ are proposed to be built for a two-story house, which will have a tile roof of 50° pitch. The height of each storey will be 9 ft. from floor to ceiling. The first-floor rooms will be formed partly in the roof, the ceiling rafters being generally about 1 ft. 6 in. above plate: (1) What are the best ties to use, and how frequently should they be inserted to make a sound job? The walls, of course, are in cement; (2) what is the best method of finishing the cavity against the top and the sides of the window and door-frames, and over the lintols? All the frames are 1 in. from the front of the wall; (3) What is the best method of protecting the ends of the first-floor joists and the plate from damp, where they come on to the inner face of the cavity? (4) Do you recommend hoop-iron bond, or a similar reinforcement, in the solid portion of the wall under the roof, or for the angles of the inner 4½, or in any other positions?

(1) Most heavy pattern non-corrosive metal ties are satisfactory, and galvanized wrought-iron ties are generally used to unite the inner and outer sides of the wall. Vitreous stoneware ties are also used, but they have not such a good grip on the outer thickness of the wall if they only bond into it 2½ in., or less, and their greater bulk in the cavity makes them liable to collect fallen mortar droppings, which conduct moisture from the wet to the dry side of the wall. Ties should be spaced not more than 3 ft. apart in width, and the courses of the ties should not be more than 1 ft. 6 in. apart in height. In plain walling the ties in alternate courses are often staggered so that each tie is over or under the centre of the space between two ties in the next course. Facilities for cleaning the cavity should be considered, however, and in a wall 8 ft. high the difficulty of raking the mortar droppings from the lower courses of ties is much greater where only 18 in. of space is left for the operation. The dimensions of the wall and the magnitude of the load it is called upon to support should really govern the spacing of the ties. A large surface of wall subjected to wind-pressure and the eccentric loading of the floor-joists and rafters needs more ties per unit of area than a smaller wall. Sound cement mortar should be counted upon in all cavity walls, and reinforcements should be added in the horizontal joints where the loads are great.

(2) The cavity is finished against the top of the window-frame by running a continuous lintol over the window, and along the wall at each story. The outside of the lintol may take the form of a facing of bricks on end, or bricks or stones arranged in a flat arch, these facings being made to combine with the concrete lintol which is cast in situ up against them. The inner side of the concrete lintol is carried up a course higher than the outside, and may be projected out like a splayed cornice inside the rooms of the house to gain increased width and lateral stiffness in the beam. This is particularly useful where there are no cross-walls, and the rooms are large and the walls high. On top of the lintol a dampcourse will be needed if the cavity wall is carried up another storey. The dampcourse must be carried right across the cavity and out into the open air on the outside, and turned up 3 in. at least on the inside, where it may profitably be turned ½ in. into the joint of the next course above the lintol. Water penetrating the face of the brickwork of the upper story must be discharged by means of weep holes in the face of the brickwork just above the lintol. The weep holes are made by putting a short end of lath into the vertical joints when the bricks are being laid. Holes so formed are quite inconspicuous. The best finish for the cavity against the jamb of a window-frame is to arrange for the woodwork to come flush with the inside of the outer thickness of the wall, and to bed vertical slates in cement on the brickwork with their edges just overlapping the wood. With wider wooden frames a rebate, or even a groove may be provided to contain the vertical edges of the slates. In applying the slates to the wall the lower end is kept towards the outside so that any water is discharged from the inside to the out. As the slates are placed in position the brick-work reveal is carried up to support them, and in this way a solid end is made to the cavity without sacrificing its damp-resisting qualities.

(3) With a continuous reinforced lintol described above there is no need to have a plate at first-floor level, and the joists may either be taken into sockets left for them in the inner thickness of the brickwork of the cavity wall, or they may rest upon the flat top of the projecting part of the lintol where this has been provided with a splayed inner face. Bedding each joist upon small pieces of slates and cement upon the concrete lintol keeps them as dry as possible. Where the joists are carried on the overhanging part of the lintol it is, of course, important that the concrete should be sound enough to act as an efficient corbel, and in view of the fact that the first-floor joists are often loaded with a weight of scaffolding while the work is green, trimming joists should be taken into pockets in the brickwork, where their ends will be ventilated by just reaching to the dry side of the cavity. The other joists may be kept ½ in. from the face of the wall, and will be even more advantageously placed. A plate will probably be required at the feet of the rafters, but as this is exposed in the loft, and is subjected to a good deal of draught creeping in under the tiles it is not so likely to decay as a plate in the middle of the height of the wall, or the feet of the rafters may be carried direct on the reinforced concrete eaves lintol, though in this case they must be temporarily supported during erection.

(4) Reinforcement is particularly valuable in cavity walls and where the rooms are 9 ft. high two or three courses of exmet or hoop-iron bond should certainly be inserted in the inner, or dry, side of the wall, in addition to the usual bar reinforcement in the concrete lintols over the windows. When a suitable non-corrosive metal is available it will be well to reinforce the outer side of the wall also. The upper lintol at the eaves is, like the ground-floor lintol, to be made continuous all round the building, with the reinforcing bars properly tension-jointed with hooks or screw couplings. Beneath the concrete the cavity is bridged with a course of snapped headers, or with a course of slates laid flat. The reinforcement should be inspected at every stage, and all cross-walls should be reinforced at the same levels, with the junctions properly made to take tensile stress. As the rooms are high and the roof is steep and heavy the reinforcement of the lintols might well be calculated to take the horizontal components of the wind and roof thrusts. In any case, it will be wise to use the splayed cornice type of lintol in order to give breadth to the beam and lateral stability to the wall.

W. H.

The Fixing of Cast-iron Mantels

"J. E." writes: "I have found that the usual practice of securing the lugs of a cast-iron mantel by means of wood plugs into the joints of the brick-work inevitably gives trouble. The heat of the fire expands the iron, pulling the plugs and cracking the surrounding plaster. Can you please give me particulars of any better method?"

A better fitting for securing the lugs of a cast-iron mantel is to use a small iron or copper hold-fast threaded through the hole of the lug and cemented into a dove-tailed shaped sinking in the brickwork. The shank of the hold-fast should penetrate about 3 in. into the solid work, and should be either bent or notched to prevent it drawing out. A good smoke-tight job can be made by bedding the metalwork of the mantel upon a rendering of hair-mortar and keeping it propped firmly up to the surface until the cement fixing of the hold-fasts has set hard and gripped them. A trial might be made of bedding the metal-work in Portland cement mortar, 1 to 1, for though Portland cement does not stand well in actual contact with the fire, it will endure considerable heat if kept some inches away from the firebrick of the interior. If the iron of the mantel is kept forward so that it does not press upon the edge of the plaster as it expands, the trouble with cracked plaster is avoided. Where expansion is feared, it is better not to bury the lugs in the finishing coat of plaster.

W. H.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 8	1 3½
A₁	Abergavenny	Do.	1 7½	1 2½
B	Abingdon ..	S. Counties	1 6	1 1½
A	Accrington	N.W.Counties	1 8	1 3½
A₃	Addlestone	S. Counties	1 6½	1 2
A	Adlington ..	N.W.Counties	1 8	1 3½
A	Airdrie ..	Scotland	*1 8	1 3½
C₁	Aldeburgh	E. Counties	1 4	1 0½
A	Altrincham	N.W.Counties	1 8	1 3½
B₃	Appleby ..	N.W. Counties	1 4½	1 0½
A	Ashton-under-Lyne	N.W.Counties	1 8	1 3½
A₃	Atherstone	Mid. Counties	1 6½	1 2
B₃	Aylesbury ..	S. Counties	1 4½	1 0½
B	BATH ..	S.W.Counties	1 6	1 1½
B₃	Banbury ..	S. Counties	1 4½	1 0½
B₃	Bangor ..	N.W. Counties	1 5	1 1
A	BarnardCastle	N.E. Coast	1 8	1 3½
A	Barnsley ..	Yorkshire	1 8	1 3½
B₁	Barnstaple	S.W. Counties	1 5½	1 1½
A	Barrow ..	N.W.Counties	1 8	1 3½
A	Barry ..	S. Wales & M.	1 8	1 3½
B₃	Basingstoke	S.W. Counties	1 4½	1 0½
A	Batley ..	Yorkshire	1 8	1 3½
B	Bedford ..	E. Counties	1 6	1 1½
A₂	Berwick-on-Tweed	N.E. Coast	1 7	1 2½
A₃	Bewdley ..	Mid.Counties	1 6½	1 2
B₃	Bicester ..	Mid. Counties	1 4½	1 0½
A	Birkenhead	N.W.Counties	†1 9	1 3½
A	Birmingham	Mid. Counties	1 8	1 3½
A	Bishop Auckland	N.E. Coast	1 8	1 3½
A	Blackburn	N.W.Counties	1 8	1 3½
A	Blackpool	N.W.Counties	1 8	1 3½
A	Blyth ..	N.E. Coast	1 8	1 3½
B₃	Bognor ..	S. Counties	1 4½	1 0½
A	Bolton ..	N.W.Counties	1 8	1 3½
A₃	Boston ..	Mid. Counties	1 6½	1 2
B₁	Bournemouth	S. Counties	1 6	1 1½
A	Bradford ..	Yorkshire	1 8	1 3½
A₃	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 8	1 3½
B₂	Bridgwater	S.W. Counties	1 5	1 1
A₁	Bridlington	Yorkshire	1 7½	1 2½
A	Brighouse ..	Yorkshire	1 8	1 3½
B₁	Brighton ..	S. Counties	1 6	1 1½
A	Bristol ..	S.W. Counties	1 8	1 3½
B₃	Brixham ..	S.W. Counties	1 4½	1 0½
A₃	Bromsgrove	Mid. Counties	1 6½	1 2
C	Bromyard ..	Mid. Counties	1 4	1 0½
A	Burnley ..	N.W.Counties	1 8	1 3½
A	Burslem ..	Mid. Counties	1 8	1 3½
A₂	Burton-on-Trent	Mid. Counties	1 7	1 2½
A	Bury ..	N.W.Counties	1 8	1 3½
A₃	Buxton ..	N.W.Counties	1 6½	1 2
B	CAMBRIDGE	E. Counties	1 6	1 1½
B₃	Canterbury	S. Counties	1 4½	1 0½
A	Cardiff ..	S. Wales & M.	1 8	1 3½
A	Carlisle ..	N.W.Counties	1 8	1 3½
B	Carmarthen	S. Wales & M.	1 6	1 1½
B₂	Carnarvon ..	N.W.Counties	1 5	1 1
A₁	Carnforth ..	N.W. Counties	1 7½	1 2½
A	Castleford ..	Yorkshire	1 8	1 3½
B₁	Chatham ..	S. Counties	1 5½	1 1½
B₁	Chelmsford	E. Counties	1 5½	1 1½
B	Cheltenham	S.W. Counties	1 6	1 1½
A	Chester ..	N.W.Counties	1 8	1 3½
A	Chesterfield	Mid. Counties	‡1 8	1 3½
B₃	Chichester ..	S. Counties	1 4½	1 0½
A	Chorley ..	N.W.Counties	1 8	1 3½
B₂	Cirencester	S. Counties	1 5	1 1
A	Clitheroe ..	N.W.Counties	1 8	1 3½
A	Clydebank	Scotland	1 8	1 3½
A	Coalville ..	Mid. Counties	1 8	1 3½
B₁	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W.Counties	1 8	1 3½
B₁	Colwyn Bay	N.W.Counties	1 5½	1 1½
A	Consett ..	N.E. Coast	1 8	1 3½
B₁	Conway ..	N.W. Counties	1 5½	1 1½
A	Coventry ..	Mid. Counties	1 8	1 3½
A₃	Crewe ..	N.W.Counties	1 6½	1 2
A₃	Cumberland	.....	1 6½	1 2
A	DARLINGTON	N.E. Coast	1 8	1 3½
A	Darwen ..	N.W.Counties	1 8	1 3½
B₃	Deal ..	S. Counties	1 4½	1 0½
B₁	Denbigh ..	N.W.Counties	1 5½	1 1½
A	Derby ..	Mid. Counties	1 8	1 3½
A	Dewsbury ..	Yorkshire	1 8	1 3½
B	Didcot ..	S. Counties	1 6	1 1½
A	Doncaster ..	Yorkshire	1 8	1 3½
C₁	Dorchester	S.W.Counties	1 4	1 0½
A₃	Driffield ..	Yorks	1 6½	1 2
A₃	Droitwich ..	Mid. Counties	1 6½	1 2
A₂	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 8	1 3½
A	Durham ..	N.E. Coast	1 8	1 3½
B₁	EASTBOURNE	S. Counties	1 6	1 1½
A	Ebbw Vale	S. Wales & M.	1 8	1 3½
A	Edinburgh	Scotland	1 8	1 3½
A	E. Glamorganshire & Mon. Valley	S. Wales & M.	1 8	1 3½
B	Exeter ..	S.W. Counties	§1 7	1 2½
B₂	Exmouth ..	S.W. Counties	1 5	1 1
B	FELIXSTOWE	E. Counties	1 6	1 1½
A₃	Filey ..	Yorks	1 6½	1 2
A	Fleetwood ..	N.W.Counties	1 8	1 3½
B₃	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W.Counties	1 8	1 3½
B₃	Frome ..	S.W.Counties	1 4½	1 0½
A	GATESHEAD	N.E. Coast	1 8	1 3½
B₁	Gillingham	S. Counties	1 5½	1 1½
B	Gloucester ..	S.W.Counties	1 6	1 1½
A₂	Goole ..	Yorkshire	1 7	1 2½
B₁	Gosport ..	S. Counties	1 5½	1 1½
A₃	Grantham ..	Mid. Counties	1 6½	1 2
A₂	Gravesend ..	S. Counties	1 7	1 2½
A	Greenock ..	Scotland	*1 8	1 3½
A	Grimsby ..	Yorkshire	1 8	1 3½
B₁	Guildford ..	S. Counties	1 5½	1 1½
A	HALIFAX ..	Yorkshire	1 8	1 3½
A₁	Hanley ..	Mid. Counties	1 7½	1 2½
A	Harrogate ..	Yorkshire	1 8	1 3½
A	Hartlepools	N.E. Coast	1 8	1 3½
B₂	Harwich ..	E. Counties	1 5	1 1
B₃	Hastings ..	S. Counties	1 4½	1 0½
B₁	Hatfield ..	S. Counties	1 5½	1 1½
B	Hereford ..	S.W.Counties	1 6	1 1½
B	Hertford ..	E. Counties	1 5½	1 1½
A₁	Heysham ..	N.W.Counties	1 7½	1 2½
A	Howden ..	N.E. Coast	1 8	1 3½
A	Huddersfield	Yorkshire	1 8	1 3½
A	Hull ..	Yorkshire	1 8	1 3½
A	ILKLEY ..	Yorkshire	1 8	1 3½
A	Immingham	Mid Counties	1 8	1 3½
B	Ipswich ..	E. Counties	1 6	1 1½
C₁	Isle of Wight	S. Counties	1 4	1 0½
A	JARROW ..	N.E. Coast	1 8	1 3½
A	KEIGHLEY	Yorkshire	1 8	1 3½
B₂	Kendal ..	N.W. Counties	1 5	1 1
B₂	Keswick ..	N.W.Counties	1 5	1 1
B	Kettering ..	Mid. Counties	1 6	1 1½
A₃	Kidderminster	Mid. Counties	1 6½	1 2
B₂	King's Lynn	E. Counties	1 5	1 1
A₁	LANCASTER	N.W.Counties	1 7½	1 2
A₃	Leamington	Mid. Counties	1 6½	1 2½
A	Leeds ..	Yorkshire	1 8	1 3½
A	Leek ..	Mid. Counties	1 8	1 3½
A	Leicester ..	Mid. Counties	1 8	1 3½
A	Leigh ..	N.W. Counties	1 8	1 3½
B₃	Lewes ..	S. Counties	1 4½	1 0½
A₃	Lichfield ..	Mid. Counties	1 6½	1 2
A	Lincoln ..	Mid. Counties	1 8	1 3½
A	Liverpool ..	N.W.Counties	†1 9	1 3½
B	Llandudno	N.W.Counties	1 6	1 1½
A	Llanelly ..	S. Wales & M.	1 8	1 3½
	London (12 miles radius)		1 9½	1 4½
	Do. (12–15 miles radius)		1 9	1 4
A	Long Eaton	Mid. Counties	1 8	1 3½
A	Loughborough	Mid. Counties	1 8	1 3½
B	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 8	1 3½
A₁	MACCLESFIELD	N.W.Counties	1 7½	1 2½
B	Maidstone ..	S. Counties	1 5½	1 1½
A₃	Malvern ..	Mid. Counties	1 6½	1 2
A	Manchester	N.W.Counties	1 8	1 3½
A	Mansfield ..	Mid. Counties	1 8	1 3½
B₃	Margate ..	S. Counties	1 4½	1 0½
A₃	Matlock ..	Mid. Counties	1 6½	1 2
A	Merthyr ..	S. Wales & M.	1 8	1 3½
A	Middlesbrough	N.E. Coast	1 8	1 3½
A₃	Middlewich	N.W. Counties	1 6½	1 2
A	Monmouth	S. Wales & M.	1 8	1 3½
	S. and E. Glamorganshire			
A₁	Morecambe	N.W. Counties	1 7½	1 2½
A₃	NANTWICH	N.W.Counties	1 6½	1 2
A	Neath ..	S. Wales & M.	1 8	1 3½
A	Nelson ..	N.W. Counties	1 8	1 3½
A	Newcastle ..	N.E.Coast	1 8	1 3½
A	Newport ..	S. Wales & M.	1 8	1 3½
A	Normanton	Yorkshire	1 8	1 3½
A₂	Northampton	Mid. Counties	1 7	1 2½
A	North Staffs.	Mid. Counties	1 8	1 3½
A	North Shields	N.E. Coast	1 8	1 3½
B	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 8	1 3½
A	Nuneaton ..	Mid. Counties	1 8	1 3½
B	OAKHAM ..	Mid. Counties	1 5½	1 1½
A	Oldham ..	N.W.Counties	1 8	1 3½
A₃	Oswestry ..	Mid. Counties	1 6½	1 2
B	Oxford ..	S. Counties	1 6	1 1½
A	PAISLEY ..	Scotland	*1 8	1 3½
C	Pembroke	S. Wales & M.	1 4½	1 0½
A	Perth ..	Scotland	*1 8	1 3
A₃	Peterborough	Mid. Counties	1 6½	1 2
A	Plymouth	S.W. Counties	¶1 8	1 3½
A	Pontefract ..	Yorkshire	1 8	1 3½
A	Pontypridd	S. Wales & M.	1 8	1 3½
B	Portsmouth	S. Counties	1 6	1 1½
A	Preston ..	N.W.Counties	1 8	1 3½
A	QUEENSFERRY	N.W.Counties	1 8	1 3½
B	READING ..	S. Counties	1 6	1 1½
B	Reigate ..	S. Counties	1 5½	1 1½
A₃	Retford ..	Mid. Counties	1 6½	1 2
A	Rhondda Valley	S. Wales & M.	1 8	1 3½
A₃	Ripon ..	Yorkshire	1 6½	1 2
A	Rochdale ..	N.W.Counties	1 8	1 3½
B	Rochester ..	S. Counties	1 5½	1 1½
A₁	Ruabon ..	N.W.Counties	1 7½	1 2½
A₂	Rugby ..	Mid. Counties	1 8	1 3½
A₃	Rugeley ..	Mid. Counties	1 6½	1 2
A	Runcorn ..	N.W. Counties	1 8	1 3½
A₃	ST. ALBANS	E. Counties	1 6½	1 2
A	St. Helens ..	N.W.Counties	1 8	1 3½
A₁	Scarborough	Yorkshire	1 7½	1 2½
A	Scunthorpe	Mid. Counties	1 8	1 3½
A	Sheffield ..	Yorkshire	1 8	1 3½
A	Shipley ..	Yorkshire	1 8	1 3½
A₃	Shrewsbury	Mid. Counties	1 6½	1 2
A₂	Skipton ..	Yorkshire	1 7	1 2½
B	Slough ..	S. Counties	1 5½	1 1½
A₂	Solihull ..	Mid. Counties	1 7	1 2½
B	South'pton	E. Counties	1 6	1 1½
B₁	Southend-on-Sea	E. Counties	1 5½	1 1½
A	Southport ..	N.W.Counties	1 8	1 3½
A	S. Shields ..	N.E. Coast	1 8	1 3½
A₂	Stafford ..	Mid. Counties	1 7	1 2½
A	Stockport	N.W.Counties	1 8	1 3½
A	Stockton-on-Tees	N.E. Coast	1 8	1 3½
A	Stoke-on-Trent	Mid. Counties	1 8	1 3½
B	Stroud ..	S.W.Counties	1 5½	1 1½
A	Sunderland	N.E. Coast	1 8	1 3½
A	Swansea ..	S. Wales & M.	1 8	1 3½
B	Swindon ..	S.W. Counties	1 6	1 1½
A₁	TAMWORTH	N.W.Counties	1 7½	1 2½
B₁	Taunton ..	S.W. Counties	1 5½	1 1½
A	Teeside Dist.	N.E. Counties	1 8	1 3½
A	Todmorden	Yorkshire	1 8	1 3½
A₂	Torquay ..	S.W.Counties	1 7	1 2½
B₁	Tunbridge Wells	S. Counties	1 4½	1 1½
A	Tunstall ..	Mid. Counties	1 8	1 3½
A	Tyne District	N.E. Coast	1 8	1 3½
A	WAKEFIELD	Yorkshire	1 8	1 3½
A₂	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W.Counties	1 8	1 3½
A₃	Warwick ..	Mid. Counties	1 6½	1 2
B	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 8	1 3½
B	Weston-S-Mare	S.W. Counties	1 6	1 1½
A₃	Whitby ..	Yorkshire	1 6½	1 2
A	Widnes ..	N.W.Counties	1 8	1 3½
A	Wigan ..	N.W.Counties	1 8	1 3½
B₂	Winchester ..	S. Counties	1 5	1 1
B	Windsor ..	S. Counties	1 6	1 1½
A	Wolverhampton	Mid. Counties	1 8	1 3½
A₃	Worcester ..	Mid. Counties	1 6½	1 2
A	Worksop ..	Yorkshire	1 8	1 3½
A₁	Wrexham ..	N.W. Counties	1 7½	1 2½
B	Wycombe ..	S. Counties	1 6	1 1½
B₁	YARMOUTH	E. Counties	1 5½	1 1½
B₂	Yeovil ..	S.W. Counties	1 5	1 1
A	York ..	Yorkshire	1 8	1 3½

The initial letter opposite each entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains, is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

* Plasterers, 1*s.* 9*d.*

† Carpenters and Painters, 1*s.* 8½*d.*

‡ Plumbers, 1*s.* 9*d.*

§ Painters, 1*s.* 6*d.*

‖ Carpenters and Plasterers, 1*s.* 8½*d.*

¶ Painters, 1*s.* 7*d.*

PRICES CURRENT

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; NAVVY, 1s. 4½d. *per hour*; TIMBERMAN, 1s. 6d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	10	0
Thames ballast, per yd.	0	13	0
Pit gravel, per yd.	0	18	0
Pit sand, per yd.	0	14	6
Washed sand	0	16	6

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	19	0
Lias lime, per ton	2	5	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.
RETURN, fill, and ram, ordinary earth, per yd. £0 2 4
SPREAD and level, including wheeling, per yd. 0 2 4
PLANKING, per ft. sup. 0 0 5
DO. over 10 ft. deep, add for each 5 ft. depth 30 per cent.
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. . £0 2 1
DO. 6 in. thick, per yd. sup. . . 0 2 10
PUDDLING, per yd. cube . . . 1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube 2 3 0
DO. 6-2-1, per yd. cube. . . 1 18 0
DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.
LIAS LIME CONCRETE, per yd. cube . £1 16 0
BREEZE CONCRETE, per yd. cube . 1 7 0
DO. in lintols, etc., per ft. cube . 0 1 6

DRAINER

LABOURER, 1s. 4½d. *per hour*; TIMBERMAN, 1s. 6d. *per hour*; BRICKLAYER, 1s. 9½d. *per hour*; PLUMBER, 1s. 9½d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per yd.	£0	1	3
DO. *6 in., per yd.*	0	2	8
DO. *9 in., per yd.*	0	3	6
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	6	9
DO. *6 in., per yd.*	0	9	2

Portland cement and sand, see "Excavator" above.

Lead for caulking, per cwt.	£2	7	6
Gaskin, per lb.	0	0	5½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. . . 0 4 3
DO. 6 in., per ft. . . . 0 5 0
DO. 9 in., per ft. . . . 0 7 9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft. 0 9 0
DO. 6 in., per ft. 0 11 0

Note.—These prices include digging and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 9½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour.*

London stocks, per M.	£4	7	0
Flettons, per M.	3	6	0
Staffordshire blue, per M.	9	12	0
Firebricks, 2½ in., per M.	11	3	0
Glazed salt, white, and ivory stretchers, per M.	22	0	0
DO. *headers, per M.*	21	10	0
Colours, extra, per M.	£5	10	0
Seconds, less, per M.	1	0	0

Cement and sand, see "Excavator" above.

Lime, grey stone, per ton	£2	12	0
Mixed lime mortar, per yd.	1	6	0
Damp course, in rolls of 4½ in., per roll	0	2	6
DO. *9 in. per roll*	0	4	9
DO. *14 in. per roll.*	0	7	6
DO. *18 in. per roll*	0	9	6

BRICKWORK in stone lime mortar, Flettons or equal, per rod . . 35 0 0
DO. in cement do., per rod . . 37 0 0
DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
FACINGS, FAIR, per ft. sup. extra . £0 0 2
DO. Red Rubbers, gauged and set in putty, per ft. extra . . . 0 4 6
DO. salt, white or ivory glazed, per ft. sup. extra 0 5 6
TUCK POINTING, per ft. sup. extra . 0 0 10
WEATHER POINTING, per ft. sup. extra 0 0 3
GRANOLITHIC PAVING, 1 in., per yd. sup. 0 5 0
DO. 1½ in., per yd. sup.. . . 0 6 0
DO. 2 in., per yd. sup. . . . 0 7 0
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup. 0 0 7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup. 0 8 0
DO. vertical, per yd. sup. . . 0 11 0
SLATE DAMP COURSE, per ft. sup. . 0 0 10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd . . 0 8 6
DO. SKIRTING, 6 in. 0 0 11
BREEZE PARTITION BLOCKS, set in Cement, 1½ in. per yd. sup. . . 0 5 3
DO. DO. 3 in. 0 6 6

THE wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade enquiry.

MASON

MASON, 1s. 9½d. *per hour*; DO. *fixer*, 1s. 10½d. *per hour*; LABOURER, 1s. 4½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour.*

Portland Stone:			
Whithed, per ft. cube	£0	4	4
Basebed, per ft. cube	0	4	7
Bath stone, per ft. cube	0	2	9½

Usual trade extras for large blocks.

York paving, av. 2½ in., per yd. super.	0	6	6
York templates sawn, per ft. cube	0	6	9
Slate shelves, rubbed, 1 in., per ft. sup.	0	2	6

Cement and sand, see "Excavator," etc., above.

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft., add 15 per cent.
PLAIN face Portland basis, per ft. sup. £0 2 8
DO. circular, per ft. sup. . . 0 4 0
SUNK FACE, per ft. sup. . . . 0 3 9
DO. circular, per ft. sup. . . 0 4 10
JOINTS, arch, per ft. sup. . . 0 2 6
DO. sunk, per ft. sup. . . . 0 2 7
DO. DO. circular, per ft. sup.. . 0 4 6
CIRCULAR-CIRCULAR work, per ft. sup. 1 2 0
PLAIN MOULDING, straight, per inch of girth, per ft. run . . . 0 1 1
DO. circular, do. per ft. run . . 0 1 4
HALF SAWING, per ft. sup. . . £0 1 0
Add to the foregoing prices if in York stone 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.
SETTING 1 in. slate shelving in cement, per ft. sup. £0 0 6
RUBBED round nosing to do., per ft. lin. 0 0 6
YORK STEPS, rubbed T. & R., ft. cub. fixed 1 9 0
YORK SILLS, W. & T., ft. cub. fixed. 1 13 0

SLATER AND TILER

SLATER, 1s. 9½d. *per hour*; TILER, 1s. 9½d. *per hour*; SCAFFOLDER, 1s. 5½d. *per hour*; LABOURER 1s. 4½d. *per hour.*

N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per M:			
Portmadoc Ladies	£14	0	0
Countess	27	0	0
Duchess	32	0	0
Clips, lead, per lb.	0	0	4
Clips, copper, per lb.	0	2	0
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	1	10

Cement and sand, see EXCAVATOR, *etc., above.*

Hand-made tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	0	0
DO. *Peggies, per ton*	7	5	0

SLATING, 3 in. gauge, compo nails, Portmadoc or equal:

Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. approx.	0	1	0
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	5	6	0
DO., machine-made DO., per square	4	17	0

Vertical Tiling, including pointing, add 18s. 0d. per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

CARPENTER, 1s. 9½d. *per hour*; JOINER, 1s. 9½d. *per hour*; LABOURER, 1s. 4½d. *per hour.*

Timber, average prices at Docks, London Standard. Scandinavian, etc. (equal to 2nds):

7×3, per std.	£23	0	0
11×4, per std.	33	0	0
Memel or Equal. Slightly less than foregoing.			
Flooring, P.E., 1-in., per sq.	£1	8	0
DO. *T. and G., 1 in., per sq.*	1	8	0
Planed Boards, 1 in.×11 in., per std.	36	0	0
Wainscot oak, per ft. sup. of 1 in.	0	2	0
Mahogany, per ft. sup. of 1 in.	0	2	0
DO. *Cuba, per ft. sup. of 1 in.*	0	3	0
Teak, per ft. sup. of 1 in..	0	3	0
DO., *ft. cube*	0	15	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	9
DO. framed in floors, roofs, etc., per ft. cube	0	6	3
DO., framed in trusses, etc., including ironwork, per ft. cube	0	7	3
PITCH PINE, add 33½ per cent.			
FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd..	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	3	10	0
SLATE BATTENING, per sq.	0	18	6

PRICES CURRENT; *continued.*

CARPENTER AND JOINER; *continued.*

DEAL GUTTER BOARD, 1 in., on firring, per sq	£3	6	0
MOULDED CASEMENTS, 1¼ in., in 4 sqs., glazing beads and hung, per ft. sup.	0	3	0
DO., DO., 2 in., per ft. sup.	0	3	3
DEAL cased frames, oak sills, 2 in. d.h. sashes, brass-faced pulleys, etc., per ft. sup.	0	4	0
DOORS, 4 pan. sq. b.s., 2 in., per ft. sup.	0	3	6
DO., DO., DO., 1¼ in., per ft. sup.	0	3	0
DO., DO., moulded b.s., 2 in., per ft. sup.	0	3	9
DO., DO., DO., 1¼ in., per ft. sup.	0	3	3
If in oak multiply 6 times.			
If in mahogany multiply 6 times.			
If in teak multiply 7 times.			
WOOD BLOCK FLOORING, standard blocks, laid in mastic herringbone :			
Deal, 1 in., per yd. sup., average	0	10	0
DO., 1¼ in., per yd., sup., average	0	12	0
DO., DO., 1¼ in. maple blocks	0	15	0
STAIRCASE WORK, DEAL :			
1 in. riser, 1¼ in. tread, fixed, per ft. sup.	0	3	6
2 in. deal strings, fixed, per ft. sup.	0	3	9

PLUMBER

PLUMBER, 1*s.* 9½*d. per hour;* MATE OR LABOURER, 1*s.* 4½*d. per hour.*

Lead, milled sheet, per cwt.	£2	7	6
DO. *drawn pipes, per cwt.*	2	8	0
DO. *soil pipe, per cwt.*	2	11	0
DO. *scrap, per cwt.*	1	4	0
Copper, sheet, per lb.	0	1	5
Solder, plumber's, per lb.	0	1	3
DO. *fine, per lb.*	0	1	7
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in., per yd.	0	4	2
DO. *4 in. per yd.*	0	5	1
R.W.P., 2½ in., per yd.	0	1	10
DO. *3 in., per yd.*	0	2	2
DO. *4 in., per yd.*	0	3	0
Gutter, 4 in. H.R., per yd.	0	1	10
DO. *4 in. O.G., per yd.*	0	2	0
MILLED LEAD and labour in gutters flashings, etc.	3	16	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	1
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	3
DO. 1¼ in., per ft.	0	4	6
LEAD WASTE OR SOIL, fixed as above, complete, 2½ in., per ft.	0	6	0
DO. 3 in., per ft.	0	7	0
DO. 4 in., per ft.	0	9	9
CAST-IRON R.W. PIPE, at 24 lb. per length, jointed in red lead, 2½ in., per ft.	0	2	3
DO. 3 in., per ft.	0	2	8
DO. 4 in., per ft.	0	3	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	2	7
DO. O.G. 4 in., per ft.	0	2	10
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	7	0
DO. 3 in., per ft.	0	6	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS only, with all joints	1	18	0
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour.*

Chalk lime, per ton	£2	12	6
Hair, per cwt.	0	18	0
Sand and cement see EXCAVATOR, *etc., above.*			
Lime putty, per cwt.	£0	2	8
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	4
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Thistle plaster, per ton	£3	9	0
Lath nails, per lb.	0	0	4
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	3
FLOATING in Cement or Sand, 1 to 3, for tiling or woodblock, ¼ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	7
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	9
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	5
WHITE glazed tiling set in Portland and jointed in Parian, per yd. and up	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 8½*d. per hour.*

Glass : 4lbs in crates :			
Clear, 21 oz.	£0	0	5
DO. 26 oz.	0	0	6
Cathedral white, per ft.	0	0	5½
Polished plate, British ¼ in., up to 2 ft. sup.	0	2	5
DO. *3ft. sup.*	0	3	2
DO. *7 ft. sup.*	0	3	9
DO. *25 ft. sup.*	0	4	3
DO. *100 ft. sup.*	0	5	1
Rough plate, ⅛ in.	0	0	5½
DO. *¼ in., per ft.*	0	0	6
Linseed oil putty, per cwt.	0	16	0
GLAZING in putty, clear sheet, 21 oz.	0	0	10
DO. 26 oz.	0	0	11
GLAZING in beads, 21 oz., per ft.	0	1	0
DO. 26 oz., per ft.	0	1	3
Small sizes slightly less (under 3 ft. sup.).			
Patent glazing in rough plate, normal span 1*s.* 5*d.* to 2*s.* per ft.			
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, and up, per ft. sup.	£0	3	6
Glazing only, polished plate, 6½*d.* to 8*d.* per ft., according to size.			

DECORATOR

PAINTER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour;* FRENCH POLISHER, 1*s.* 9*d. per hour;* PAPERHANGER, 1*s.* 8½*d. per hour.*

Genuine white lead, per cwt.	£3	0	0
Linseed oil, raw, per gall.	0	4	2
DO., *boiled, per gall.*	0	4	5
Turpentine, per gall.	0	7	2
Liquid driers, per gall.	0	9	6
Knotting, per gall.	1	5	0
Distemper, washable, in ordinary colours, per cwt., and up	2	0	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4
Single gold leaf (transferable), per book	0	1	10
Varnish copal, per gall. and up	0	18	0
DO., *flat, per gall.*	1	2	0
DO., *paper, per gall.*	1	0	0
French polish, per gall.	0	19	0
Ready mixed paints, per gall. and up	0	10	6
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	10
DO., subsequent coats, per yd. sup.	0	0	9
DO., enamel coat, per yd. sup.	0	1	2½
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	£0	5	6
FRENCH POLISHING, per ft. sup.	0	1	2
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	4	0
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SMITH

SMITH, *weekly rate equals* 1*s.* 9½*d. per hour;* MATE, *do.* 1*s.* 4*d. per hour;* ERECTOR, 1*s.* 9½*d. per hour;* FITTER, 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 4*d. per hour.*

Mild steel in British standard sections, per ton	£11	0	0
Sheet steel :			
Flat sheets, black, per ton	18	0	0
DO., *Galvd., per ton*	27	0	0
Corrugated sheets, galvd., per ton	26	0	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts, per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	27	0	0
DO., in small sections as reinforcement, per ton	17	0	0
DO., in compounds, per ton	18	0	0
DO., in bar or rod reinforcement, per ton	20	10	0
WROT. IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity. The measured work price is on the same basis . . . per ft. sup.	£0	0	2½
FIBRE BOARDINGS, fixed on, but not including studs or grounds, per ft. sup.	0	0	6
Plaster board, per yd. sup. from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. from	0	2	8
Asbestos sheeting, 3/32 in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, 5/32 in. punched per M. grey	17	0	0
DO., *red*	19	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casement in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
Waterproofing compounds for cement. Add about 75 per cent. to 100 per cent. to the cost of cement used.			
Plywood			
3 m/m alder, per ft. sup.	0	0	2
4½ m/m amer. white, per ft. sup.	0	0	3½
⅜ m/m figured ash, per ft. sup.	0	0	5
4½ m/m 3rd quality, composite birch, per ft. sup.	0	0	1½