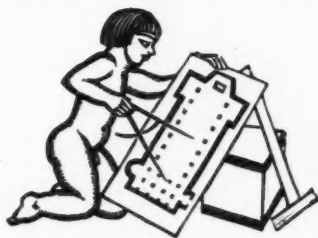


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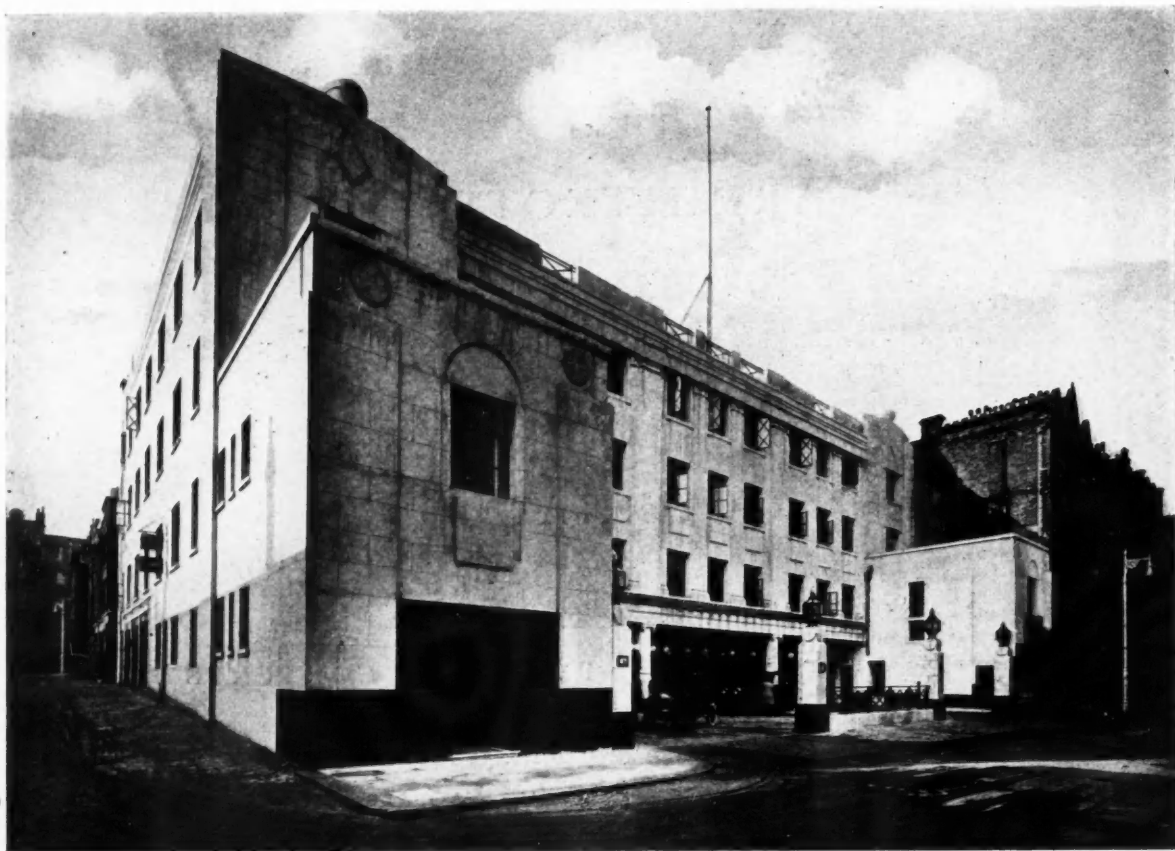
CHRISTIAN BARMAN, *Editor*

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.

WEDNESDAY, October 19, 1927. NUMBER 1709: VOLUME 66

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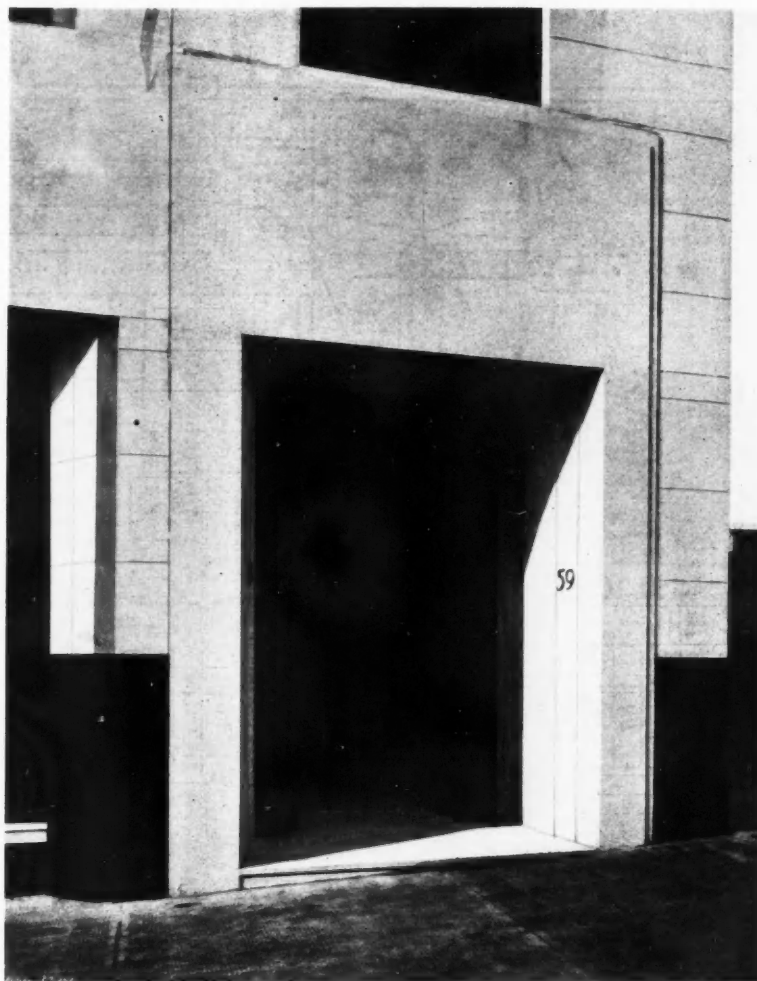


New garages are springing up all round the West End of London. The one shown in the accompanying illustrations—Messrs. Wimperis & Simpson, FF.R.I.B.A., architects—is in Balderton Street, Oxford Street. The building—for the erection of which Messrs. F. & H. F. Higgs, Ltd., were the contractors—was given an exterior rendering of “Atlas White” Portland cement stucco, Leighton Buzzard sand being employed as an aggregate, by Messrs. Grano-Metallic Paving & Plastering Co., Ltd. A building designed and constructed for commercial purposes gains considerably in value if it attracts the admiration and attention of the passer-by. This is a busy world and London is the busy hub of it. Busy minds are full of their own affairs. A new business in a new building may either stand unnoticed or may tastefully but insistently impress upon all who pass its portals the purpose of its existence and

its value to the commercial community. Men are likely to consider it an asset to its surroundings (or otherwise) from their first impression of its appearance. Write to me at Regent House, Regent Street, London, W.1, and ask for “Specifications for Atlas White Stucco” as applied to commercial structures in general. Garages and warehouses present floor problems. Their solution is easy if my “Dustless Floor Specifications” are followed.



Frederic Coleman



[A working detail of this doorway
appears on the following page]

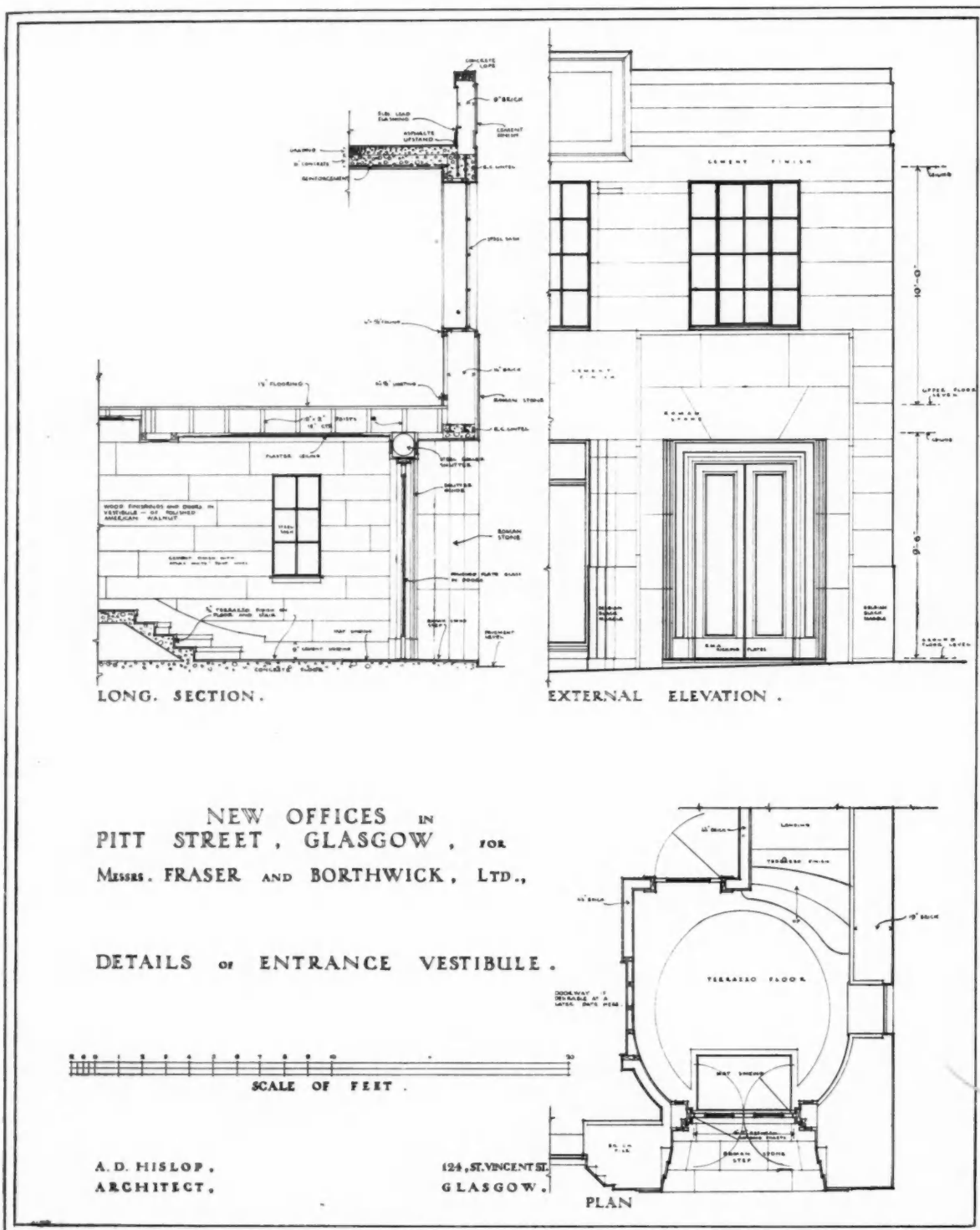
THE DOORWAY TO NO. 59
PITT STREET, GLASGOW

[BY A. D. HISLOP.]

THE WEEK'S DETAIL

[BY A. D. HISLOP]

The photograph on this page and the working drawing on the following one, show the entrance to Messrs. Fraser and Borthwick's new offices in Pitt Street, Glasgow; a view of the whole building appears elsewhere in this issue. The design of the doorway echoes that of the rest of the building, with its deeply recessed windows on the ground floor and its shallow mouldings. The surround of the entrance is executed in Roman stone, the rest of the façade being finished in cement. The stone is carried up from street-level, but the remainder of the façade is carried on a plinth of Belgian black marble, which returns about 4 ft. on each side of the door and to a corresponding level at the other end of the elevation, to give balance. The vestibule is finished in cement with "Atlas White" joint lines, and there is also a cement skirting. The floor is of concrete, and the step outside the door of Roman stone.



A photograph of this detail is given on the preceding page.



Wednesday, October 19, 1927

NATIONAL ELECTRICAL DEVELOPMENT

AT a recent luncheon of the British Electrical Development Association, speeches by Sir James Devonshire, President of the Association and a member of the Central Electricity Board, and later by Mr. Frank Hodges, also a member of the Board, showed that the important business of national electrical development was benefiting by the positive and forward commercial attitude of its leaders. We were glad to hear Mr. Hodges saying that gas and electricity ought not to be rivals. It is a fallacy to suppose that the coming colossal development of electricity and its application to industry and agriculture can bring disaster to such basic industries as coal and gas. British electrical development should be as wide as that of any other country in the world. If it is possible by combined effort to bring the cost of electricity at the switchboard down to the lowest known throughout the world—not too great an ambition, as Mr. Hodges has said—it is for those engaged in the distribution of electricity to see that the media through which it passes to the public are both cheap and efficient. For the co-ordination of electrical development throughout the whole of South-east England the Electricity Commissioners have prepared a scheme which has recently been transmitted to the Central Electricity Board for adoption.

For the generation of electricity in the south-east area of England there are today one hundred and thirty-five public generating stations. The scheme will reduce this number to twenty-eight, and it is thought that by the year 1940, six of these stations will cease to be generating stations. On the other hand, it is contemplated that five more generating stations of modern type, suitably situated, will have to be established. Thus, by the time the scheme is completed, all the electricity required will be generated by twenty-seven stations, or one station for each three hundred and twenty-seven square miles area, instead of one for each sixty-five square miles. As a result, one hundred and eight of the existing generating stations will be changed into transforming stations, but the land and buildings will still be utilized so as to conserve capital. Not only will the cost of production be greatly reduced by the scheme, but there will be other incidental public savings.

In determining what generating stations should be selected stations and what others were necessary to supplement their operation for a limited period under the scheme, the Commissioners have had regard to the cost of coal delivered to the station, availability of water for condensing purposes, technical characteristics of the station, proximity to load, and the possibilities of the site for the further expansion of the station. The stations will be inter-

connected by a series of high-pressure main transmission lines which will be joined up to, and supplemented by, a series of secondary transmission lines at a lower voltage, suitable for the purpose of supplying the various undertakings concerned with distribution. The transmission systems, both primary and secondary, are designed in a series of ring-mains, so that there will be alternative routes to points of supply, and consequently greater security against breakdown.

The cost of the scheme to the Board for the erection of the primary transmission system is estimated at £6,500,000. In addition there is to be an expenditure of £5,500,000 on extensions by the owners of generating stations. Sir John Snell, who recently addressed a Press meeting on the subject of the South-east England Electricity Scheme, pointed to the considerable reduction in coal consumption and consequent decrease in the pollution of the atmosphere. Reduction of damage to buildings from the erosion of chemical-laden air is a matter of urgency to architects and property owners.

In the area affected by the scheme the quantity of electricity sold to consumers today is one thousand five hundred and sixteen million units, yielding a revenue of £14,000,000. The average price per unit is 2·2 pence, but the variation is enormous, being as high as tenpence for lighting in some districts. For power, the price varies from fivepence-halfpenny per unit to a penny or less. The cost for general domestic purposes is between 1½d. and 1¾d. In the course of time, as a result of the working of the scheme, this tremendous number of variable prices will be greatly reduced. Aesthetic considerations have not been ignored. The Central Electricity Board have assured themselves that the towers for overhead transmission lines shall not be offensive-looking objects and that every regard shall be paid to the amenities of the district through which the lines pass. If we want cheap electricity, we must allow the construction of overhead lines. In the inner metropolitan district overhead lines are not possible and underground cables will have to be used at a cost approximately three times as great as that of overhead lines. We need imagination, foresight and large-scale planning in our industries today, whether they be engineering, mining or textiles. Sooner or later, those who fail in the forward attitude find efficiency and control being imposed from without. The electricity supply industry has been wise enough and fortunate enough to recognize in time the necessities of modern technique, and by accepting a degree of national control has escaped for ever more drastic alternatives.

NEWS AND TOPICS

MR. HARRY BARNES AS A PARLIAMENTARY CANDIDATE—
A CLAPHAM HOUSING REFORM SCHEME—HAWARDEN—
HELPS TO HAPPINESS

As in duty bound, I am fain to ignore, in these pages, the sweeping generalization of Private Willis "That every boy and every gal, That's born into the world alive, Is either a little Liberal, Or else a little Conservative." For may the fates forbend that I should ever so far forget my plain duty of neutrality as to pollute these serenely non-partisan pages with political virus! But, apart from all intention of party bias, I feel bound to make confession of my unfeigned joy on learning that Major Harry Barnes has been unanimously adopted as a Parliamentary candidate for Warwick and Leamington. I care not under what colours he marches, but, anyhow, I offer him my sincere congratulations on the opportunity afforded him of getting back to Parliament, therein to resume the eminently useful services he is so competent to render to State and community. His statesmanlike qualities have always inspired the respect of the whole House, quite independently of the party considerations, which always shrivel into insignificance in the presence of urgent national needs, such as that for national housing, and, incidentally, national health. On such vital questions Major Barnes advises with unsurpassed authority. It is because I regard him as a pre-eminent publicist and excellent citizen, rather than a mere party politician, that I want to see him sent back to Parliament. Nor am I unmindful of the distinguished services ungrudgingly rendered to architectural interests. For all which reasons, and for some others, I hope to see Major Harry Barnes returned to the House, which just now seems to me to be more than ever in need of men combining large vision with practical wisdom and expert knowledge and ability.

* * *

Mr. Louis de Soissons and Mr. Grey Wornum are carrying out a scheme in Clapham that will arouse the interest of housing reformers throughout the world. Here, within a quarter of an hour of Whitehall, over a thousand flats are being built by a public utility society that has the support of both the Ministry of Health and the London County Council. There are two blocks of flats nearly completed, and the design presents many features of interest to architects. The blocks surround five separate independent gardens, which will be laid out with flowerbeds and grass. In the centre of the ground floor of each block is a handsome archway leading through to the garden court. In time there will be a vista through the six blocks from north to south across five garden courts. There are a great number of varieties of flats, as regards size, planning, and aspect, but in nearly every case the living-rooms look to the south or west. One of the most striking features of the upstairs flats is the individuality obtained through each flat being entered from the wide balcony which extends the length of the building. This is an effort made by private enterprise to provide flats to let within the means of the middle classes, for rents varying from £70 to £100. Amenities such as lavatory basins in the bedrooms, constant hot water supply, tennis courts, garages, five courts, and perhaps a swimming

bath will be provided. Sir Theodore Chambers, the chairman of the board of management, told me that such a layout was only possible because the owners had control over a sufficiently large area of land to make broad development possible.

* *

With the approval of Signor Mussolini, an idea put forward by an Italian architect, Pio Franchi, is shortly to be carried out. An exact model of Italy in high relief is to be constructed. This will reproduce every geographical detail, including mountains, railroads, lakes, and towns. The model will be placed in a tiny lake 60 metres in diameter, that will represent the Mediterranean, and the principal rivers of Italy will be marked by running water. It is proposed that this map shall be placed in the Villa Umberto, under the Pincian Hill, for the education of Italian children.

* * *

The name of Gladstone has always been associated in my mind with the picture of 62 Rodney Street, Liverpool, that fine mid-eighteenth-century house, once detached and in its own garden, where the statesman was born. When I sat down to read Mr. Osbert Burdett's penetrating and most unfashionably humane *W. E. Gladstone*, I looked for a reference to this house, but did not find it. Instead I found the following:

Having married the heiress of Hawarden, Gladstone was naturally taking a warm interest in the future home which he was to preserve amid many financial difficulties. In 1809 the house was built of . . .

At this point I had to pause and rub my eyes. Who is not aware of the carefully-thought-out strokes of luck with which a kindly Providence impelled the forward career of this great man? "He arrived appropriately on the crest of the family's fortunes." He "happened to enter public life at the turn of the tide." And so forth. But that the Flintshire Glynnes should build, the very year he was born, a house in which, with Catherine Glynne, he was to spend the most important part of his important life—that was, indeed, a benefaction for which I had not been prepared.

In 1809 the house was built of brick before being enlarged and cased in stone "in the castellated style," when it became Hawarden Castle.

Though even then it was not *the* Hawarden Castle; when Parnell came to stay with him, Gladstone "Took him to the old castle." But *a* castle, of course, it simply had to be. Fortunately the Glynnes realized their mistake in time.

* * *

I see that Mr. C. Lynfield, of the Auto-Electric Advertising Company, has been reading the leading article on advertisements in telephone boxes which appeared in this JOURNAL on October 5. Interviewed by the *Observer*, he says: "I cannot see that it is possible for anyone to have any misgivings whatever. . . . Ninety-nine per cent. of the public will, I am sure, enjoy them thoroughly." Well, now, who would have thought it? I realize at last what it is Mr. Lynfield and his co-directors are aiming at. They clearly will not rest content until they see us all wildly enjoying ourselves. They are just out to make us happy. Rather sweet of them, don't you think?

ASTRAGAL

ÆSTHETICS VERSUS ECONOMICS

[BY SIR JOSIAH STAMP, G.B.E.]

I: THE HISTORIC SENSE [concluded]

THE popular study of medieval ecclesiastical architecture is, I believe, growing in general estimation. Nothing leads more directly into the humanities. A village church is at once a monument exhibiting civil and religious history, social development, economic conditions, folklore, ecclesiastical change, geology, heraldry, art craftsmanship and evolution of beauty, relativity, progress in mechanics and engineering, and a problem to be unravelled worthy of all the deductive reasoning of the highest detective art. Hardly a province of knowledge is untouched or faculty of the mind unused when you ask your questions and read your answers. Pass round this church and take my catalogue of subjects in order:—Civil history: Why that recumbent knight with his feet on the lion, and this one with the hound? Religious history: Why those empty niches, that pulpit of pattern so different from the screen? Social development: Why that airy lighted chapel, and what is the punning rebus in the boss for someone newly rich in the woollen trade? Why that stone bench around the wall? Economic conditions: Why this profusion of fine sculpture or this wealth of woodwork? Folklore: Who can read that quaint pictured story on the font and tympanum? To what end was the "storied window richly dight"? Ecclesiastical change: Why the stairway in the chancel arch, the Easter sepulchre? Geology: Why this quartered and decorated flint work? Whence this marble shaft? Heraldry: What is the status of that fenced knight with shield on shield? Craftsmanship: How could men have chiselled and human skill ever have undercut those lovely capitals? Evolution of beauty: Could such naturalism ever have evolved from conventionalism? How striking is the unbroken sequence of window tracery, from the mere hole in the wall to the intricacy of the late Geometrical! Mechanics and engineering: Why were those early efforts at vaulting a failure, leading to that special buttressing? The detective, deductive instinct: How has this ground plan evolved in such a sequence? To what demands of space or style can we account for that mixed arcade of varying dates?

Actual sight of historical objects is thus an essential gateway to knowledge, on which the historic sense is based.

But for those who have knowledge already, actuality always makes it live more vividly and become an essential and not an accidental part of one's mentality and outlook. It is not merely a question of a sentimental love of ruins. The mellowing, softening touch of years, the weathering of grey or fawn stone, the gentler harms and damages of Time's remoteness and age-long experiences, are not all enough to give ultimate worth. They have their own directness of expression and individuality, and complete fitness of means to ends, a spontaneous harmony with their surroundings that would not disappear even if we saw them new and sharp. This was got by a natural appeal, without great professional study or sophisticated tradition, but aiming directly at serving a purpose. "As soon as pure artifice thrusts itself before the law of practical provision it is no more part of true architecture than our clothes are part of our skin."¹ This is the firm principle of the best we can find, for example, in Tudor domestic architecture.

¹ S. E. Castle: *Domestic Gothic of the Tudor Period*.

Actuality turns knowledge into a dynamic historic sense. To handle the authentic history itself is to get solidity into perception—no longer a painted scene, or the make-shift of sham planes, but the rounded feel of objects, in a perspective that we pass *into*. In my study of taxation I read of the Hearth Tax of the Restoration, and the hated chimneymen, and the joyous repeal, and the succeeding window tax. It is graphic, but it does not seize me with actuality. Then in the Record Office, searching for the distribution of a family name in a county area in the seventeenth century, I unroll the unwieldy parchments, parish by parish, a veritable household directory—or more, because I can see the importance of the dwellings. There is one leaving the house, Widdow Joliffe, into which moves that rising young carter, Spooner. Where is the "widdow"? I find her now in the neighbouring parish, gone to live next door to her son. Last year's parchment roll showed that abode she now takes as void and falling down—some good building has since been done. But "widdow" is now marked "poore" and pays no tax. Here, legible, as if written yesterday; there, whole parishes torn, burnt, or missing; again, pages hardly readable in that cramped evolution between the German script of James I and the modern English cursive. Does not my hearth tax live? Or its aristocratic parent, the subsidy, and those neater, more exiguous rolls and their selecter gentry, charged for their lands and their goods? Will someone in two hundred and fifty years turn over the pages that I, as fledgling income-tax surveyor, wrote in the year that Queen Victoria died, and observe that John Jones, Butcher £250 (abated £160), in my view "wants watching" or "is acquiring property," or "lives in £40 house and other income"?

Then, again, I know all about the Plague, and the in-and-out upheavals of those Civil Wars, and the disease and death and depopulation. But I never lived in it to feel it as my own veritable history until, sitting in the little vestry, with the old iron safe open beside me, I turn over the frayed leaves of the parish registers of the village church, watching the clock, with the patient custodian, the rector, growing less vigilant and more trusting of me every hour. I pass year after year of burials at a rate of five minutes for a year, and calculate I shall be through with my task in half an hour, when suddenly the years lengthen out into solid blocks of many pages for each. What has happened? I have plunged into those dread plague years and they are telling me their story in a way that makes a *difference to me*. That is history indeed! Then here are those customs of Elizabethan England. There is, for example, "Roger Shepherd, son-in-law to Nicholas Wollands, was slain by a lioness which was brought into the town to be seen of such as would give money to see her. He was sore wounded in sundry places, and was buried the 26th day of August." Then the shameless lack of reticence of these parish records, carrying a social blunder, that was hid from inquisitive neighbours then, to the eyes of the merely curious searcher now. Again, that's the second "baseborn" child to "Mary" with the quaint surname, in these two pages!

No one has really lived with his ancestral England unless he has sat in that basement room at Somerset House and handled those vast brown volumes of wills, and painfully deciphered the cramped abbreviations, and slowly spelled out the social conditions of the sixteenth century in the family loves and hates, the petty proud possessions of beds and bolsters and coverlets, and the "oak chest that is in the chamber where I lye." I know all about the decline

in the value of the monetary unit since the Middle Ages, and sheep costing fourpence. But when a forbear of my own makes an elaborate bequest to all his nieces and nephews of five shillings each and a silver ring, knowledge yields to conviction. I read the inventory of the wealth of one who bore arms, and was visited by the heralds, and paid subsidy, and was no end of person in his day, and then I know what relativity in the standard of life means, and contentment being no mathematical function of possession! Indeed, any authentic document is the true Time Machine, and the centuries take on the quality of space traversed.

As a mere habit of collecting, rarities and first editions mean little to me. I can study the evolution of economic doctrine as quoted in any modern textbook or reprint, and fully comprehend it. But in that brown old volume, with its ancient form of type, and its veritable individual survival, William Petty or Joseph Child or Thomas Mun look straight at me, and I actually *see* the evolving of human opinion about gold and the balance of trade, with that kind of reality in the mind like the close, rare clearness of the landscape through a lens on the right kind of evening. My own faculty for actualizing by contact is no doubt limited, others possess it elsewhere. I have not learnt to people the past with the touch of medieval armour or a halbert in a museum. But long familiarity with fourteenth- to sixteenth-century buildings gives me the mason's mind and the whole panorama of his times, with the growing power of the squire, and the meretricious new directions of money-making, and the blistering silences of the Black Death, and a doubting wistfulness that someone five hundred years hence might feel about what I am doing, like I feel about this.

One more example, from my own range of interests, of the power of actuality. I love biography. I know, of Palmerston, all the facts of his practical, quixotic petulance about the bad handwriting of his Foreign Office subordinates. But from my autograph collection I hold in my hand the veritable and authentic writing—February 9, 1849: "My dear Ponsonby: Your attachés put me out of all Patience by the paleness of the ink in which they write out your Dispatches. Pray give them my compliments and say I have put all at the Bottom of their respective Lists, and if they do not mend their ways, I shall be obliged to send you in their stead another set who will pay more attention to writing that which can be read. Yrs. sincerely, Palmerston." This is a thing that lifts it out of books and makes it actual—provides the very continuum of history in my being. Or, again, Palmerston at 25, at the War Office, can be seen in Phillip Guedalla's graphic pages. But I make the old War Office stereoscopic when I hold in my hand the account headed "State of allowed charges of the 15th Regiment of Foot from the 25th December 1797 to the 24th December 1798, both days inclusive." It is given in detail. But the accounting in finality seems to be, indeed, leisurely when Palmerston signs and certifies it on August 26, 1812, fourteen years after the date to which it relates.

Yes, if a wider possession of historical perspective is essential to balanced judgment on social evolution, and this is essential to the wise development of democratic institutions, and thus to sanity in economics, then objectivity and actuality are the main gateway to that sense of history we should value so much. Every illustration in a cottage, or manor house, or abbey, or tithing, barn, or keep, is a popular educator leading, not far away, to better

economic insight. But even the mere stone marking a battle site or a decisive event, keeps that event potentially active as a point in the long vista, even to a whole charabanc of Jerusalem-builders in a green and pleasant land. Every tablet marking the dwelling-place of a great thinker or doer, not merely makes his name imperishable, but keeps alive that the thing he *did* had to be begun and done, and was not always a part of the scheme of things. So things today are evolving that some day will be solid to the touch as the oldest hills, and some man we sneer over is becoming great enough in the doing for a plaque of his own when we have ceased to be curious.

For I set great store by objective actuality, not merely because it creates a sense of history, the base of sane judgment of things relative, and of economic common sense in arranging them, but because that same historic sense is the best nursery of resolve, selflessness, and public spirit. Ruskin said: "Each generation will only be happy or powerful to the pitch that it ought to be in fulfilling these two duties to the Past and Future. Its own work will never be rightly done, even for itself—never good or noble or pleasurable to its own eyes, if it does not prepare it also for the eyes of generations yet to come. And its own possessions will never be enough for it, and its own wisdom never enough for it, unless it avails itself gratefully and tenderly of the treasures and the wisdom bequeathed to it by its ancestors." Christopher Wren laid stress on the public spirit which objects of interest and architectural beauty could create, a sort of communal *esprit de corps*. "Architecture has its political use; public buildings being the ornament of a country, it establishes a nation; draws people and commerce, makes the people love their country, which passion is the great original of all actions in the Commonwealth. The emulation of the great cities was the true cause of this greatness."

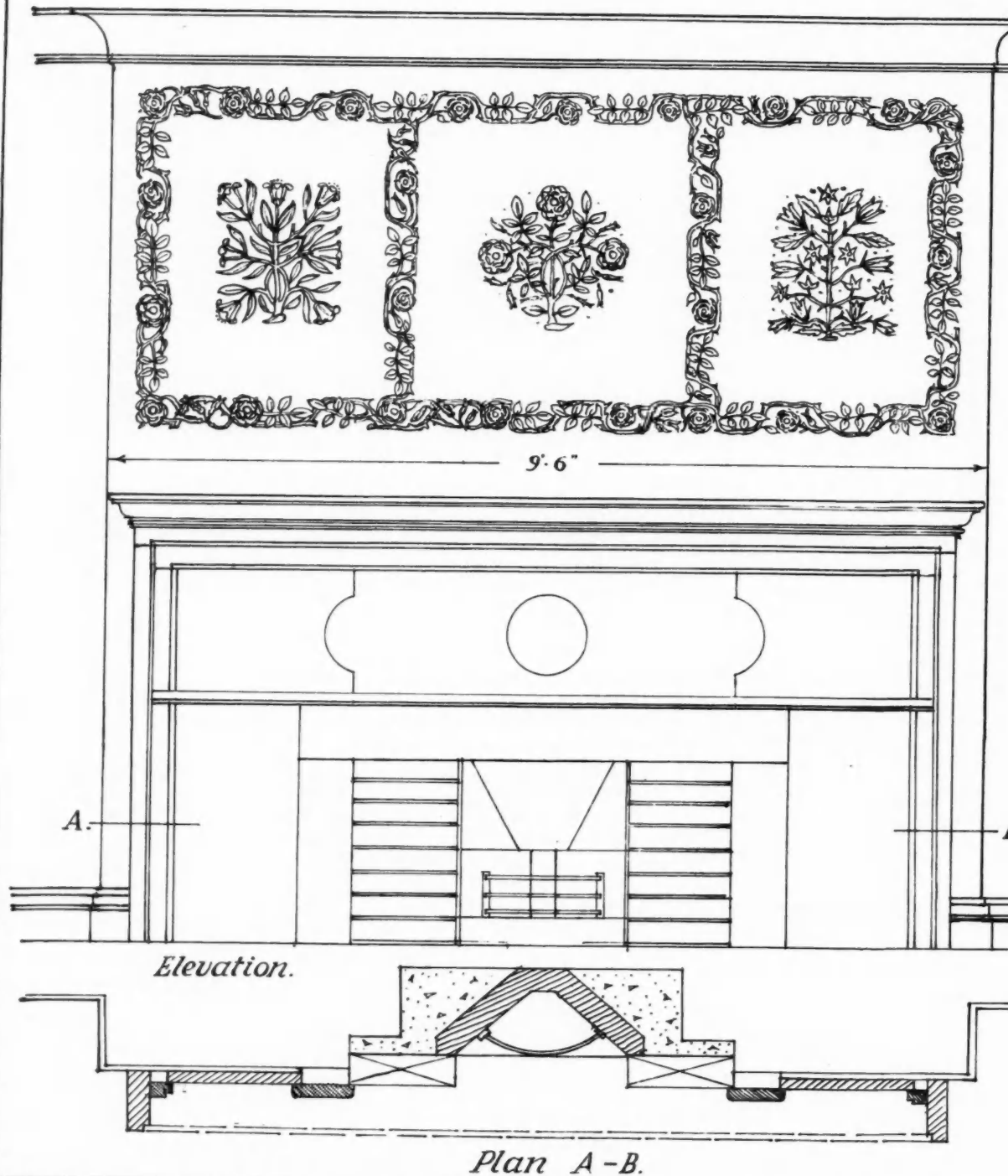
Character and purpose ought to be made greater by a sense of social evolution and betterment, creating firm resolution and pride that in the whole time-sequence this age alone should not appear barren. This evolution sense is fostered by recognizing that past forms are objective indications of past needs and past states of life. In domestic architecture there should be vivid human interest. For its revelation of daily life ought to appeal to a wide range, yet it seems to be little understood or appreciated. If we could be natural about it, and realize that it expresses, not so much the ideas of professional architects as the character and wants of a people from whom we have ourselves developed, it would invade the sentiment of ordinary folk like any domestic or homely reminiscence. First, we must at least do as well. "Many of us are impelled to inquire into the secrets which make for the happy composition of these venerable buildings, because we feel that, far from our having outlived the example they set, there is some doubt as to our living up to it."¹

Secondly, we ought really to do better ourselves. It may be trite to say that "lives of great men all remind us, we can make our lives sublime," but without the dwelling, and the memorial, the statue and the plaque, the great majority would have little stimulus to know anything of those great lives. But even the most casual, seeing a group taking an interest in such an object, will inquire: "Well, who was the bloke, anyway?" and have a fleeting glimpse of some human achievement which he had vaguely thought was always with us, or dropped from the skies.

¹ S. E. Castle: *Domestic Gothic of the Tudor Period*.
[To be continued]

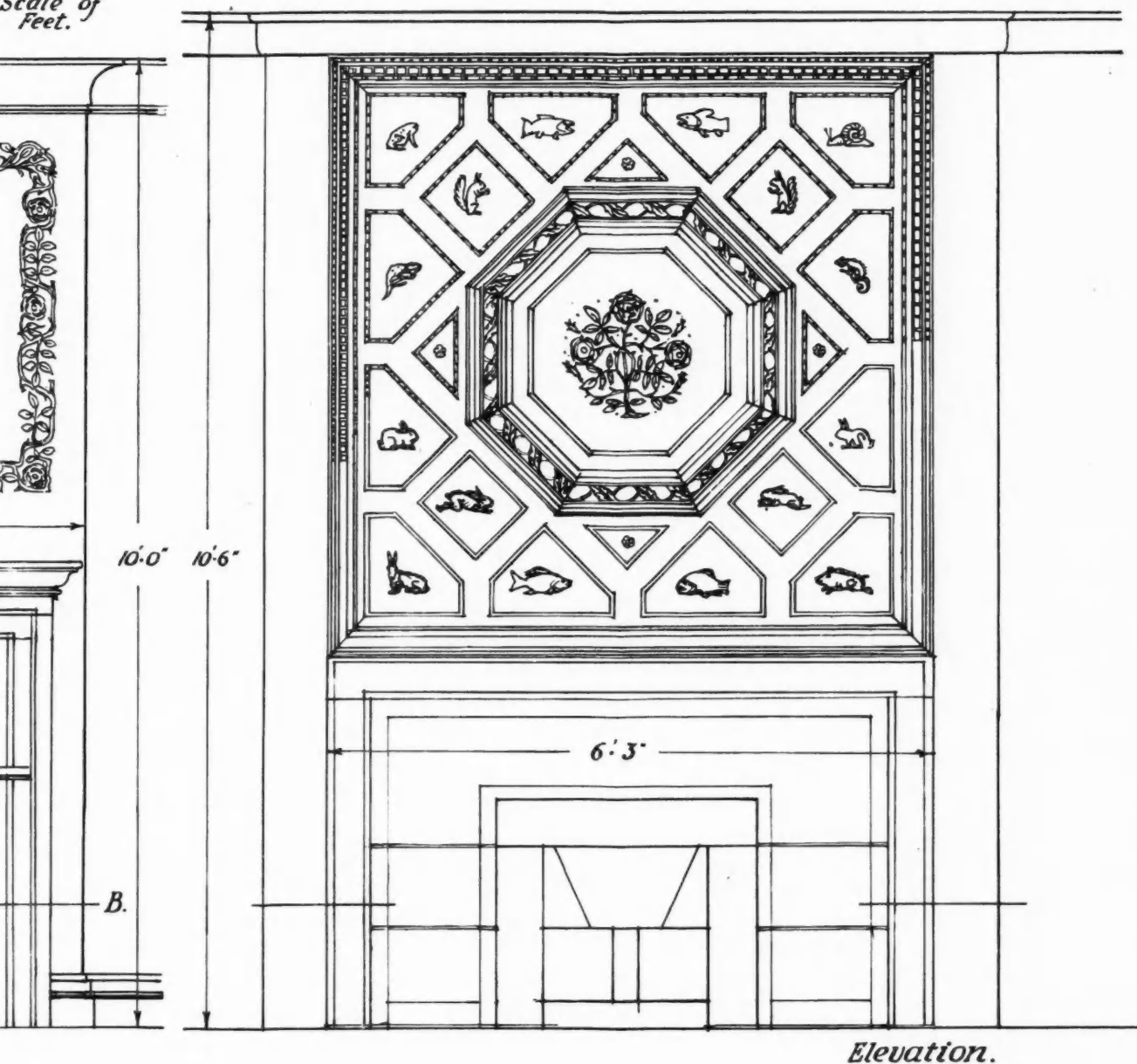
Two Fireplace Overm

12 1 2 3 4 5 6 7 8 | Scale of Feet.



Overmantels in Low Relief.

Scale of
Feet.



FOUR MODERN PLASTERWORK DESIGNS. 4. TWO FIREPLACE
OVERMANTELS IN LOW RELIEF. BY GEORGE P. BANKART.

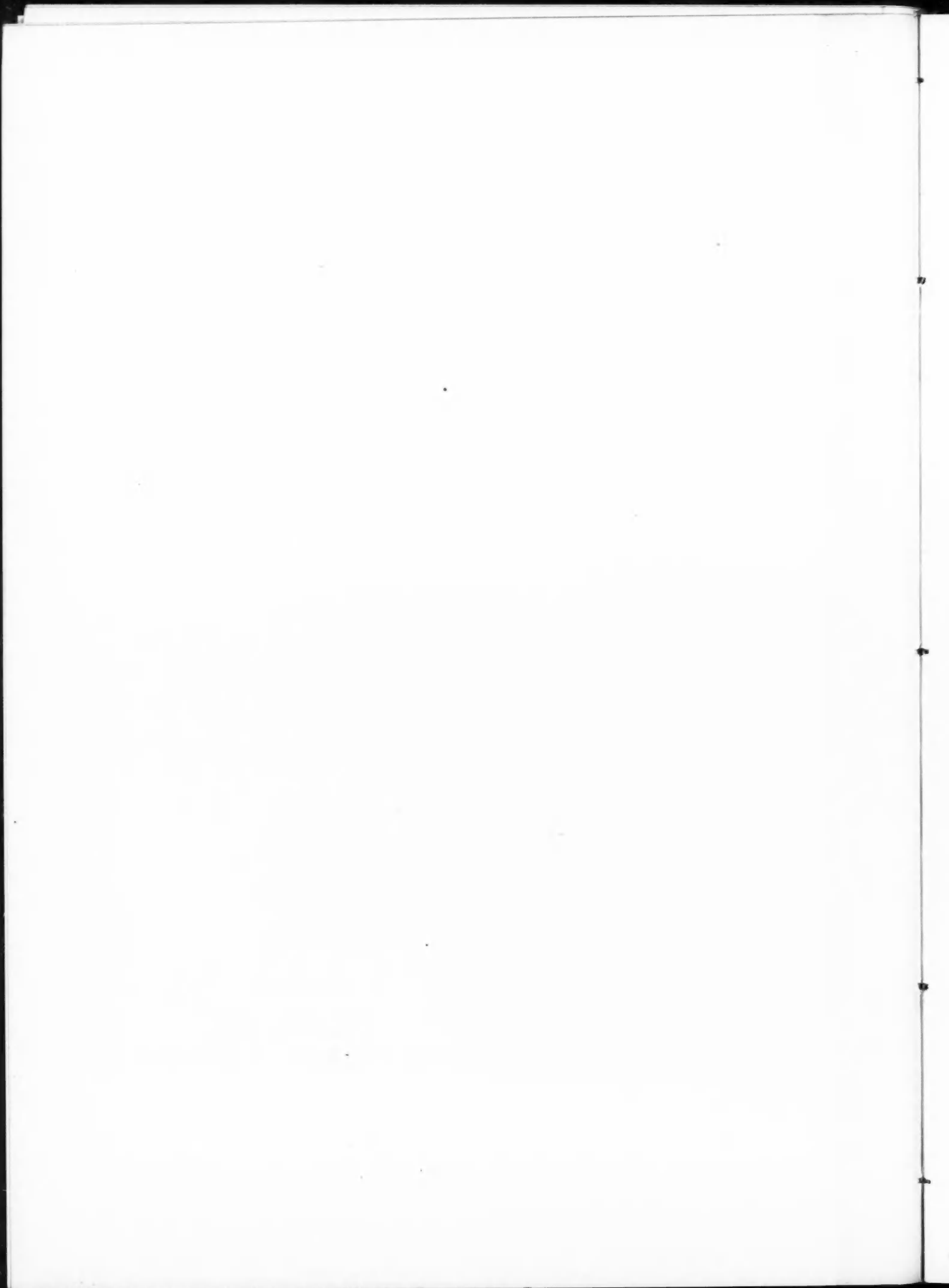
Exterior Plaster Work





★

FOUR MODERN PLASTERWORK DESIGNS. 3. EXTERIOR
PLASTER WORK. BY GEORGE P. BANKART.



RECENT WORK IN GLASGOW

[BY WILLIAM J. SMITH]

MANY who associate Glasgow and the Clydeside with commerce and politics of a bright reddish tinge are struck by the unemotional, sober aspect of the street architecture of the second city. The fact is that this aspect expresses more eloquently the spirit of Glasgow than any shade of her politics. There is little or nothing of a forced revolutionary tendency in the design of the buildings recently erected, and this despite the fact that strong personalities like "Greek" Thomson and Charles R. Macintosh were Glasgow architects and practised there. Macintosh's work has more influence abroad than it has in this country; certainly Glasgow shows little signs of it other than those instances with which he was directly associated, notably the School of Art building in Renfrew Street.

The architectural design of street façades in Glasgow remains impersonal and safe, following in general, orthodox traditional lines. Nevertheless, like other great centres of the present day there are signs of what is termed the "modern" tendency, especially in the work of some of the younger "school." Perhaps the most definite and recent example is Messrs. Austin Reed's new premises at the

corner of Renfield Street and Gordon Street. Full advantage has been taken of the splendid site at the crossing of two main thoroughfares and diagonally facing the Central Station. The treatment of the corner is probably the most satisfactory in the city. Only the actual angle for the full height of the building and the shops on the ground floor has been developed externally. The surrounding "old" work, horizontal in emphasis, but serves to enforce, by contrast, the definite effect of the corner treatment. The corner is designed as a vertical "flood-lit" recess, running the full height of the building from the first-floor level, and simply but effectively linked to the ground-floor corner entrance doorway. The texture and colour of the Travertine used as a "facing," the simple harmonious detail, the whole conception makes a definite appeal and is certainly in idea a fresh contribution to Glasgow street architecture.

We are a nation of shopkeepers, and Glasgow is a city of shops, showing variety in arrangement and external design.

Messrs. Carswell's shop front at the corner of St. Vincent



The Hunters Memorial in the University Grounds, Glasgow. By John Burnet, Son, and Dick.

Street and Renfield Street is simply and quietly treated with bronze and black marble surround. Though it might perhaps be thought to be rather commonplace in effect it is yet refined and in harmony with the existing building above. The bronze detail has good character and is well executed. The upper part of the window is enclosed and utilized as separate show-space. In other instances in Glasgow stained and leaded glass is sometimes inserted for decorative effect, but it is questionable whether the resultant loss of throw in the daylight is compensated for by any treatment—however attractive—as it is usually overdone at this important lighting part of the glass area. Panelled and finely-figured woods form the

entrance—a few feet in depth—are lined with marble, practically black in colour. A somewhat more cheerful result might perhaps have been obtained if the dark marble had been used for the framing or external architraves and the white used for the recess of the doorways. The lettering and furnishings are of white metal. The entrances appear larger than they really are. This is due to broad simplicity of detail, assisted by the smallness of scale of the surrounding buildings.

Along with shops Glasgow has her warehouse problems to face like other great cities. Very often the real problem for the architect is to unite the two harmoniously in one building. It cannot be said that this has been solved in

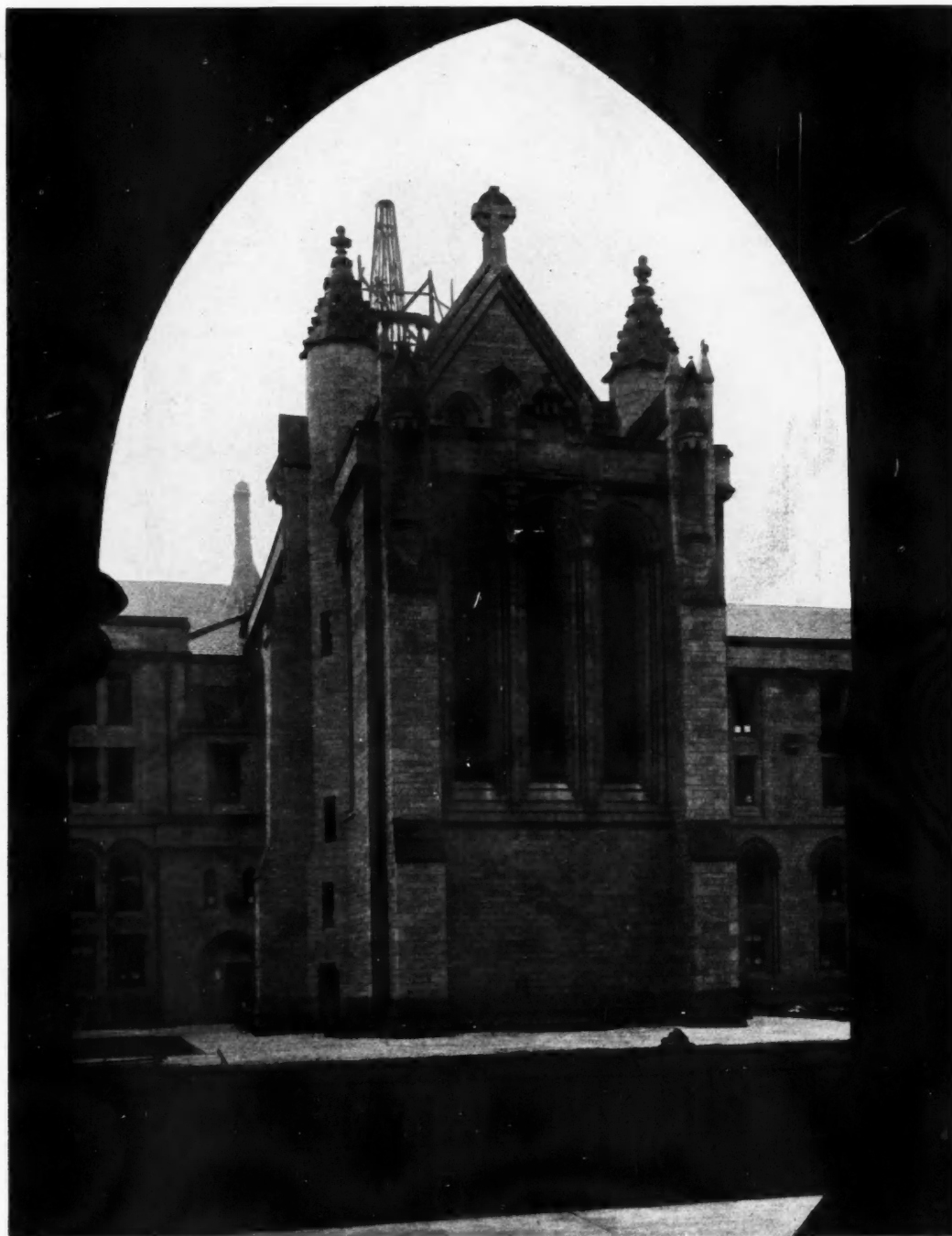


The Hunters Memorial in the University Grounds, Glasgow. By John Burnet, Son, and Dick. A detail.

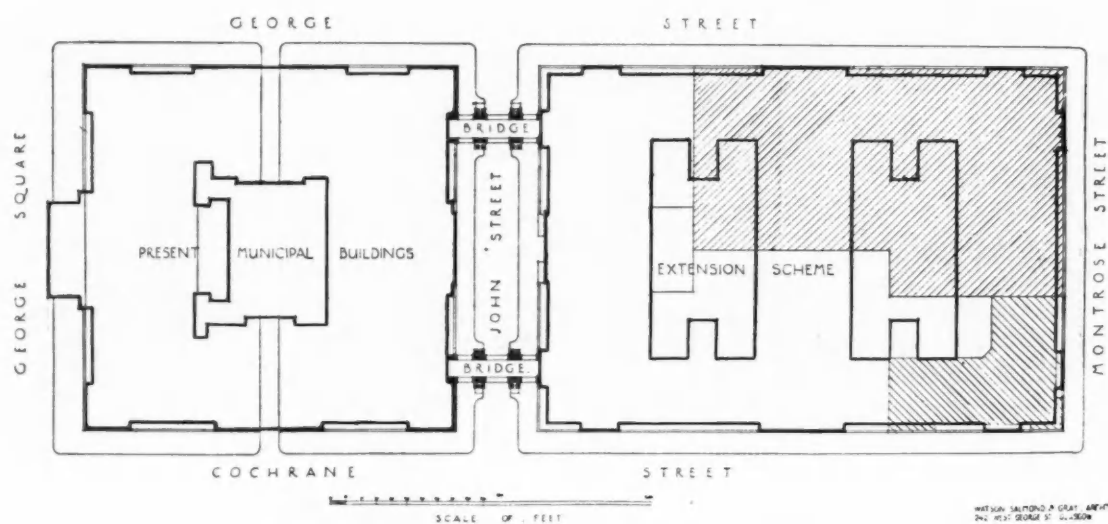
usual background in the window show-space; but in the new premises for Miss Margaret Hunter, in Sauchiehall Street, a new and effective note is struck by the adoption of unrelieved black painted woodwork, which serves as an admirable ground for the gaily-coloured children's fineries exhibited there. By facing the ground floor with black marble the idea is carried to the exterior. The fine lettering over the doorway and the window sashes of white metal relieve the gloom of an all-black scheme.

A somewhat similar external treatment of a ground floor is the entrance to the Locarno Dance Hall, also in Sauchiehall Street. Here the three wide openings are surrounded by broad white marble architraves. The walls of the open

Glasgow very much better than anywhere else. Messrs. MacLaren's wholesale warehouse facing George Square is an instance of the present-day warehouse treatment of stonework forming a frame enclosing the lighting area of several stories; the various floors being marked by bronze panels. This is a well-designed steel-framed structure, one of the tallest in Glasgow, and is faced with Blaxter sandstone. Shops were not called for on the ground floor. The problem was therefore simplified and a good architectural solution obtained. If the usual bronze panels in tall buildings of this type be replaced by stone panels on the same vertical plane, the slender vertical piers are—and they appear to require it—stiffened, the stone colour is

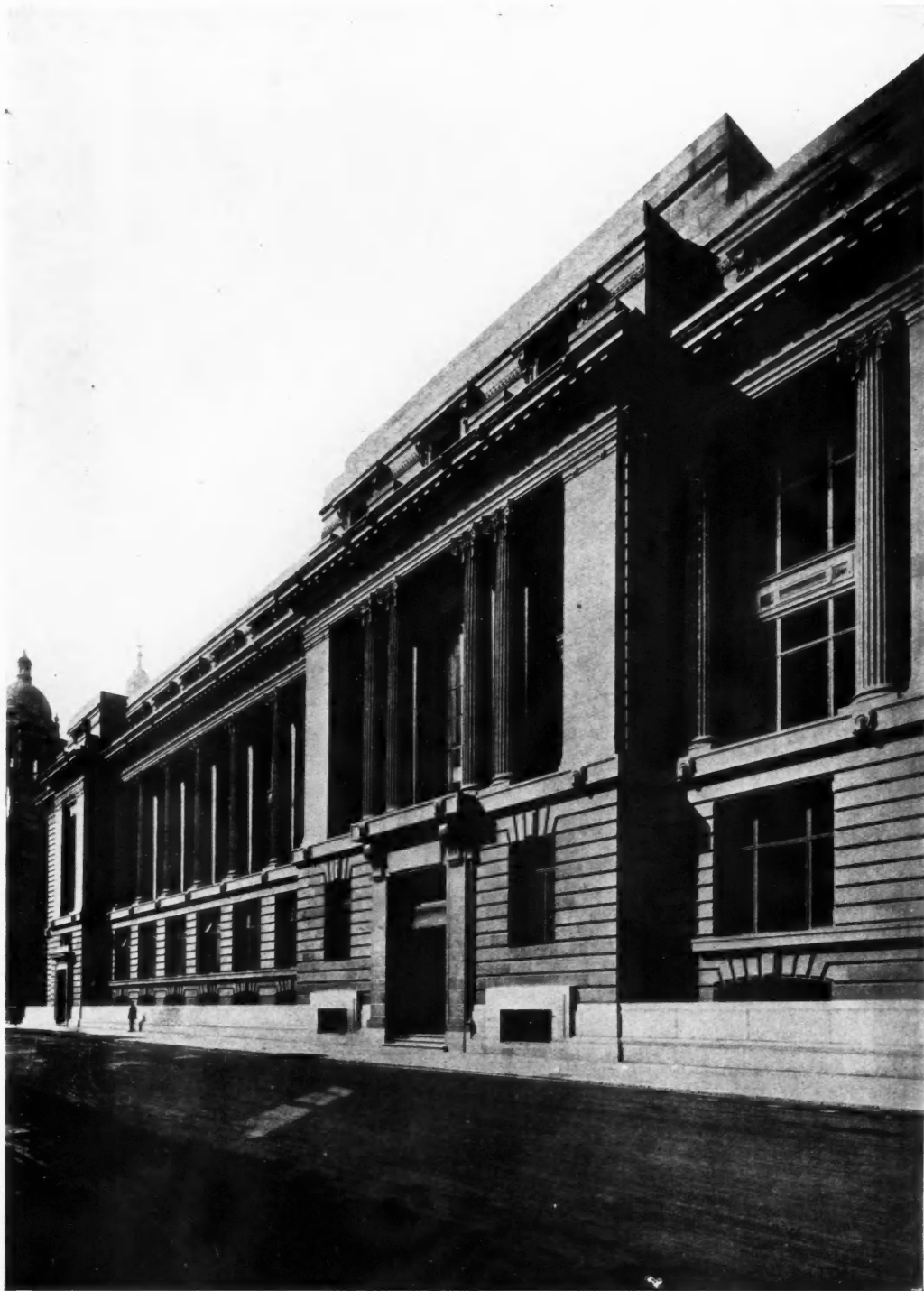


*University Memorial Chapel, Glasgow.
By John Burnet, Son, and Dick.*

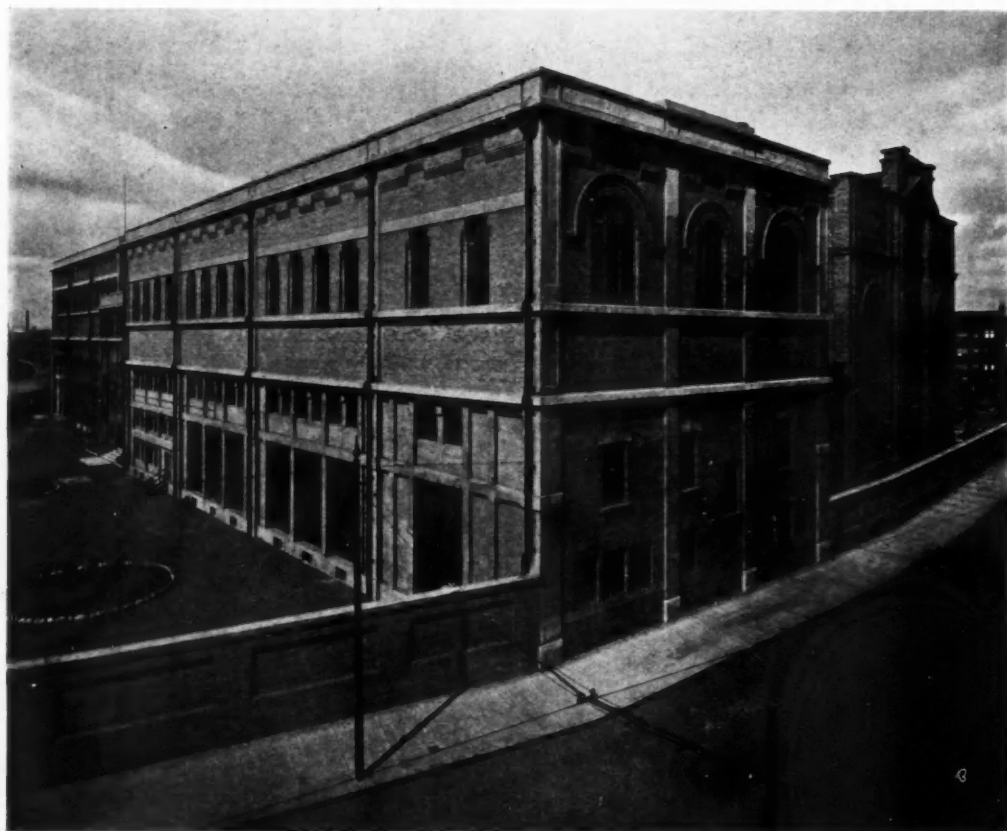
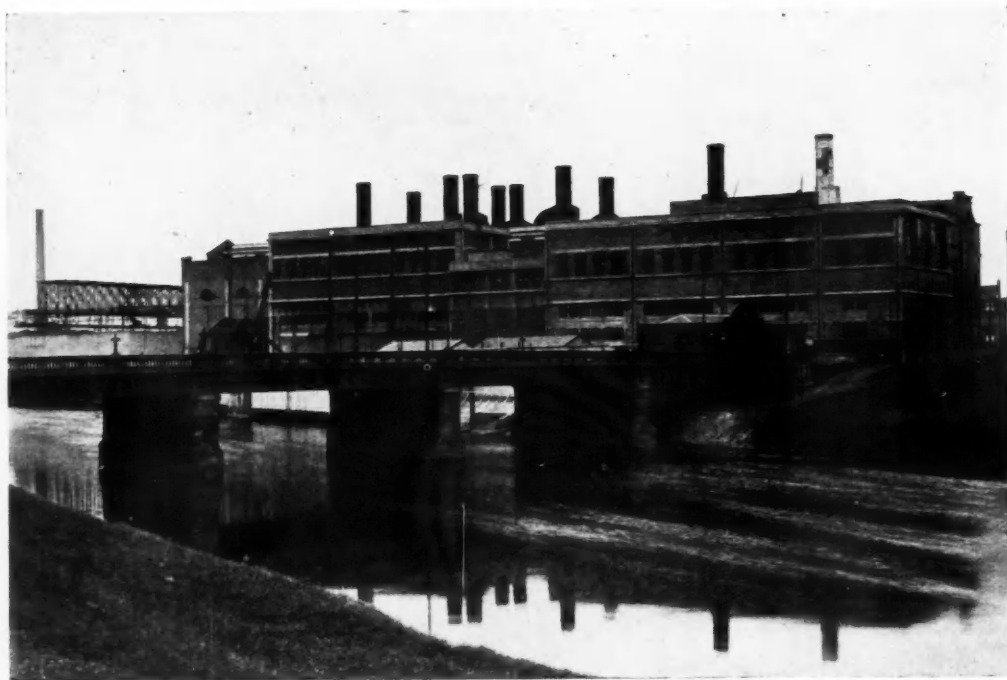


Glasgow Municipal Buildings Extension. By Watson, Salmond and Gray. Above, the connecting archway. Below, the ground-floor plan.

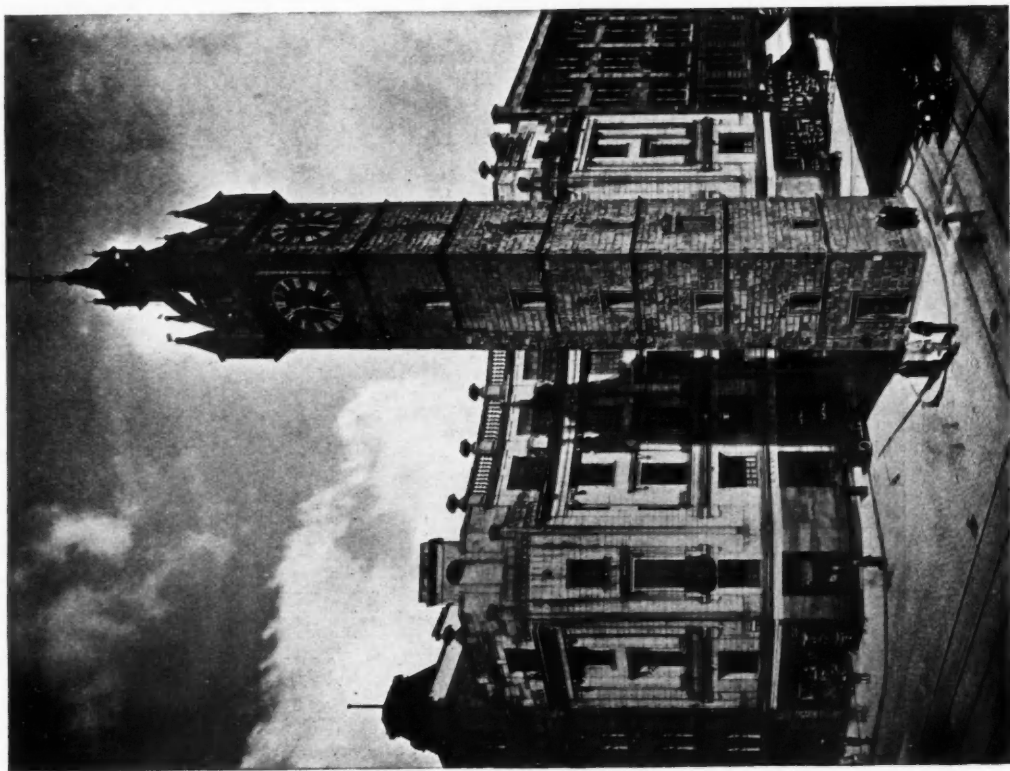
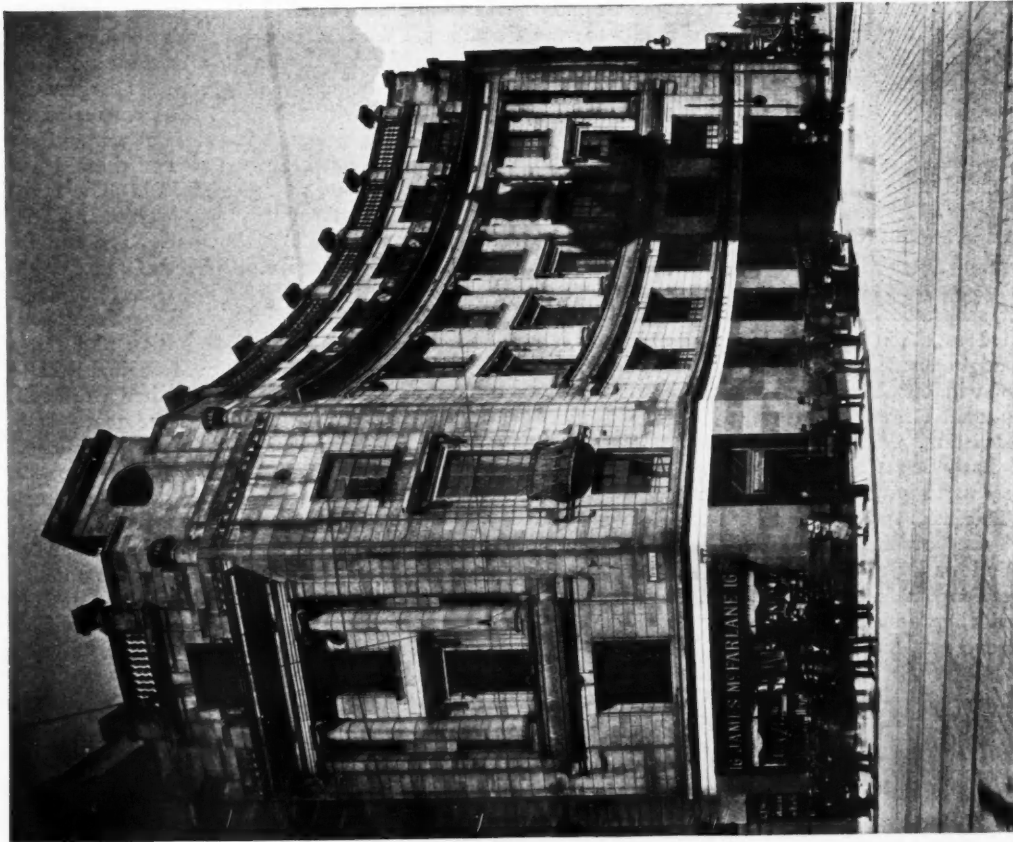
WATSON, SALMOND & GRAY ARCHTS
200 WEST GORRAN ST. GLASGOW



Glasgow Municipal Buildings Extension. By Watson, Salmond and Gray.



Dalmarnock Electricity Works Extension. By R. B. Mitchell. Above, view of switch houses and administrative block from south side of river. Below, gables of switch houses and turbine room from Dalmarnock Road.



Glasgow Cross improvements; new building, and restoration of Tolbooth Steeple for the Corporation. By Képpie and Henderson.

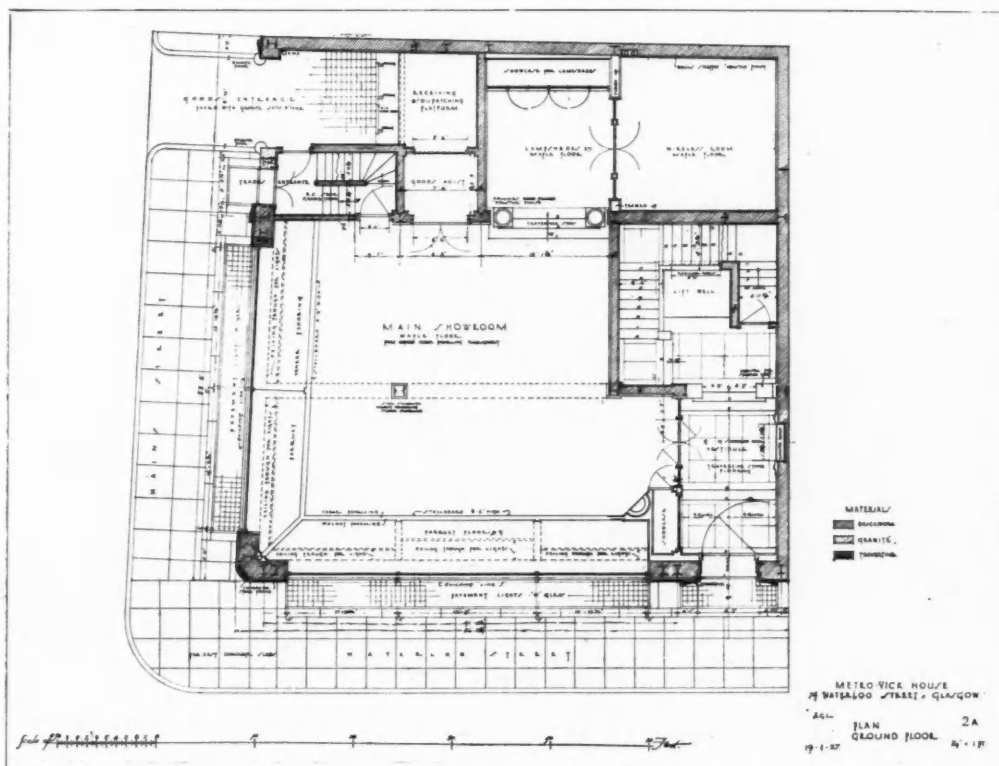
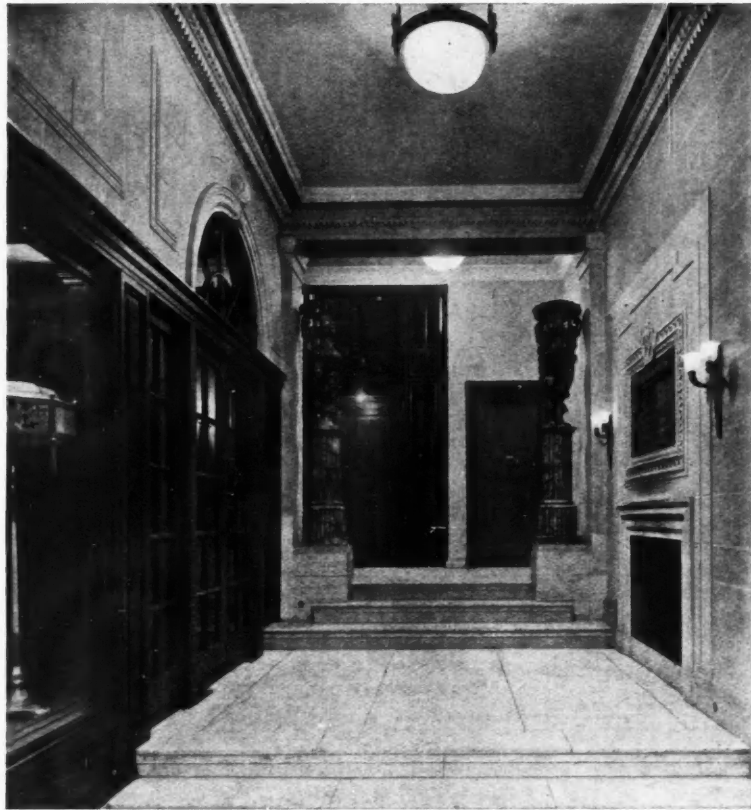
carried through, and the general effect might be more satisfactory. This suggestion seems to apply to the façade of Messrs. Lumley's new premises in Sauchiehall Street, where the panels at floor level might be whitened with the proprietary plastic material with which the building is faced. Imitative jointing should be omitted. The result, it seems, would be to stiffen the design and distribute the apparent load of the two tall piers upon the signboard-lintel over the shop front.

Following the lines of Messrs. MacLaren's building, the upper stories of James Craig's premises in Sauchiehall Street are well-designed and clearly express the plan. The ground-floor shops, however, do not appear to be very closely related to the upper part of the building. The building as at present seems inclined to be thin and weak above the top windows, but an additional story, with a row of regularly-spaced small windows, will make a more effective completion. In Messrs. Pettigrew and Stephens' premises in Bath Street the comparative lowness of the shop front seems to have affected the composition of the frontage. This has, however, been overcome to a large extent by the architects uniting the ground- and first-floor windows by a projecting balcony, and by the elbows of a formidable architrave. Raising the shop front and reducing the height of first-floor windows might further improve matters, but this probably is easier said

than done with a client very much in the foreground. The same remarks regarding relationship of ground- and first-floor windows seem to apply to the design of the elevation to the new building for the Glasgow Corporation in connection with the city improvements scheme at the Glasgow Cross, which included the repair and preservation of the steeple which formed part of the old Tolbooth or town's courthouse, now demolished. The new building, with lower story faced with grey granite and built of sandstone above, is an imposing one. The squaring of the obtuse-angled corner is a satisfactory feature, but the details of the building generally do not seem altogether pleasing. Begun before the war and also the result of open competition, the Glasgow Corporation were also responsible as clients for the extension of the Municipal Buildings. The problem for the architects was rather a difficult one; for the existing Municipal Buildings are generally considered to be lacking in good scale. The complete new building of municipal offices is designed as a separate block linked and architecturally adjusted to the old building by means of two connecting arcades, each forming a covered connecting way at the level of the first-floors. The picturesque archways in John Street and the new building are monumental in character and in good scale, though the detail seems inclined to be "dated" and somewhat heavy. The whole forms a notable addition to Glasgow's civic centre. The



*Metro-Vick House, Waterloo Street, Glasgow.
By James T. Thomson. The exterior.*



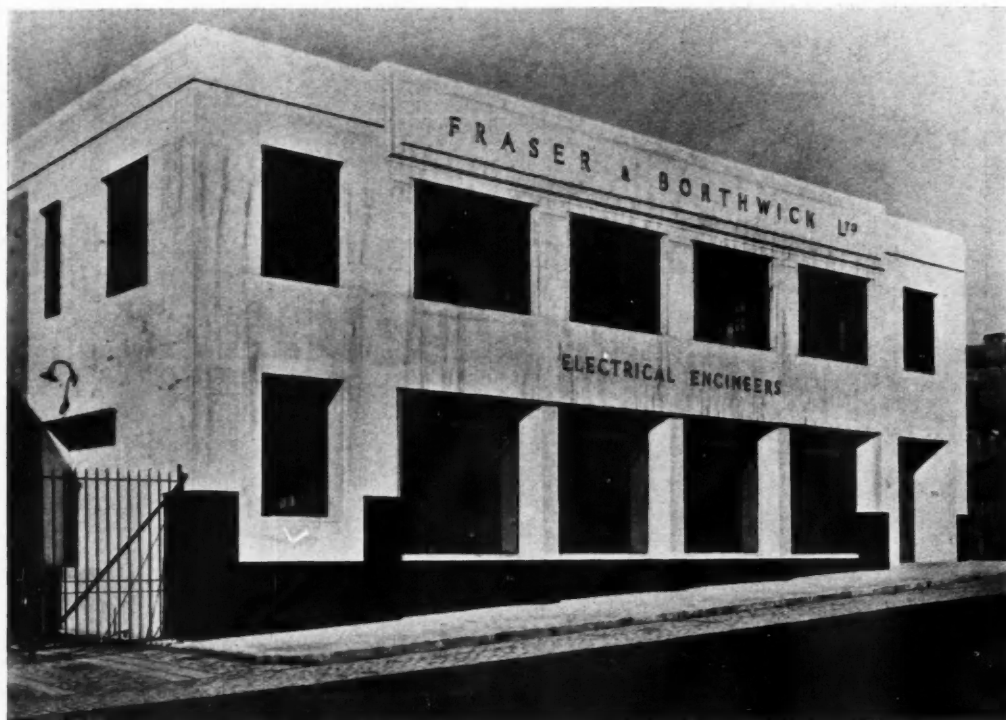
Metro-Vick House, Waterloo Street, Glasgow. By James T. Thomson. Above, the vestibule. Below, the ground-floor plan.



*Works for the Albion Motor Car Company, Ltd.
Glasgow. By Wallis, Gilbert and Partners.*

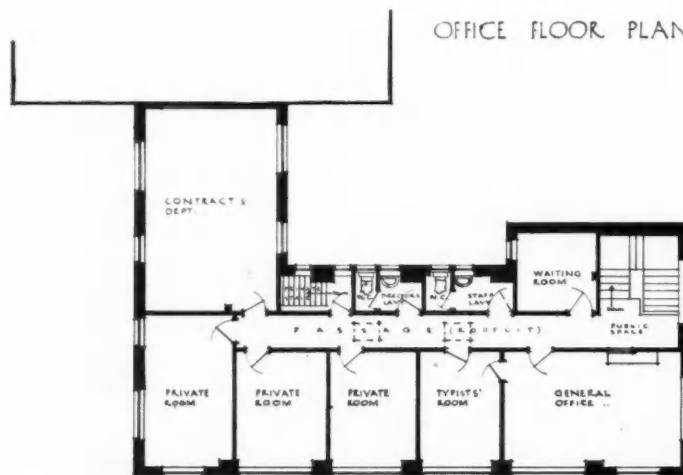


*Offices for the Albion Motor-car Co.,
Ltd., Scotstoun. By A. N. Paterson.*



NEW OFFICES IN
PITT STREET, GLASGOW, FOR
MESSRS. FRASER AND BORTHWICK, LTD.

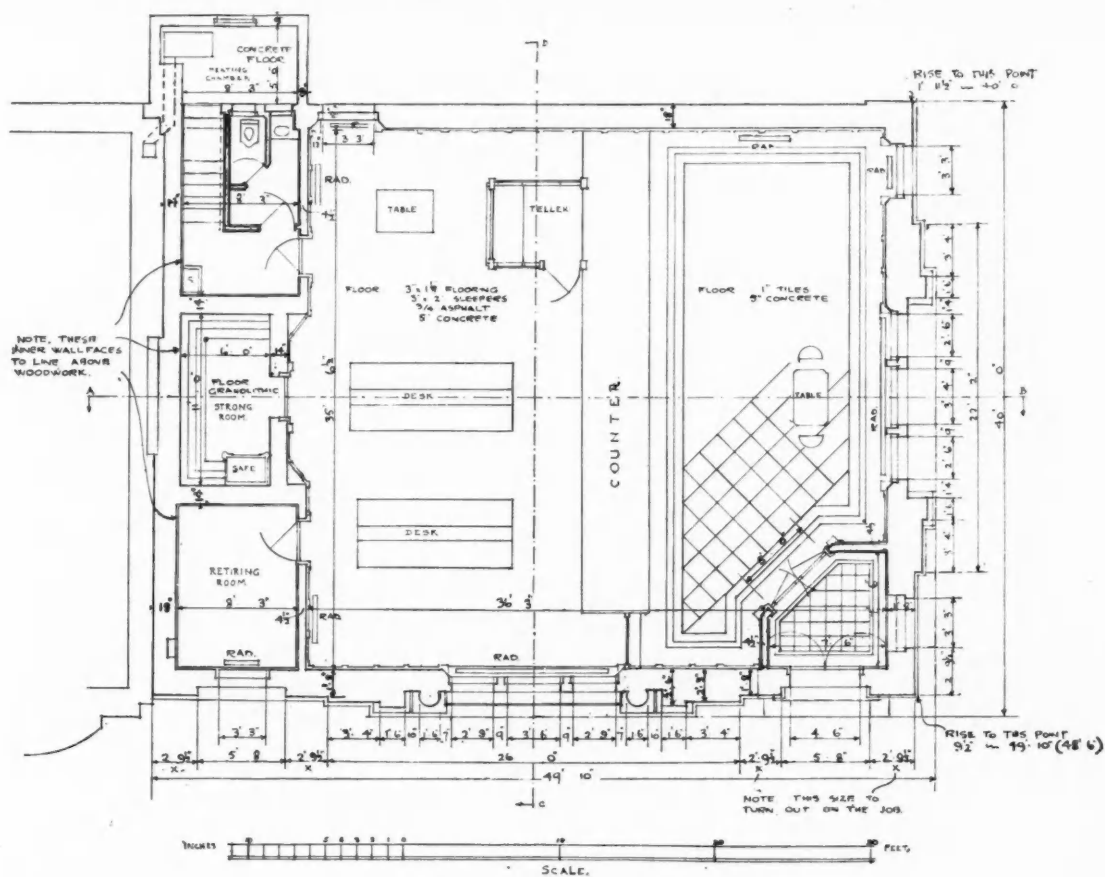
OFFICE FLOOR PLAN



A. D. HISLOP,
ARCHITECT,
108, ST. VINCENT ST.,
GLASGOW.

SCALE OF FEET

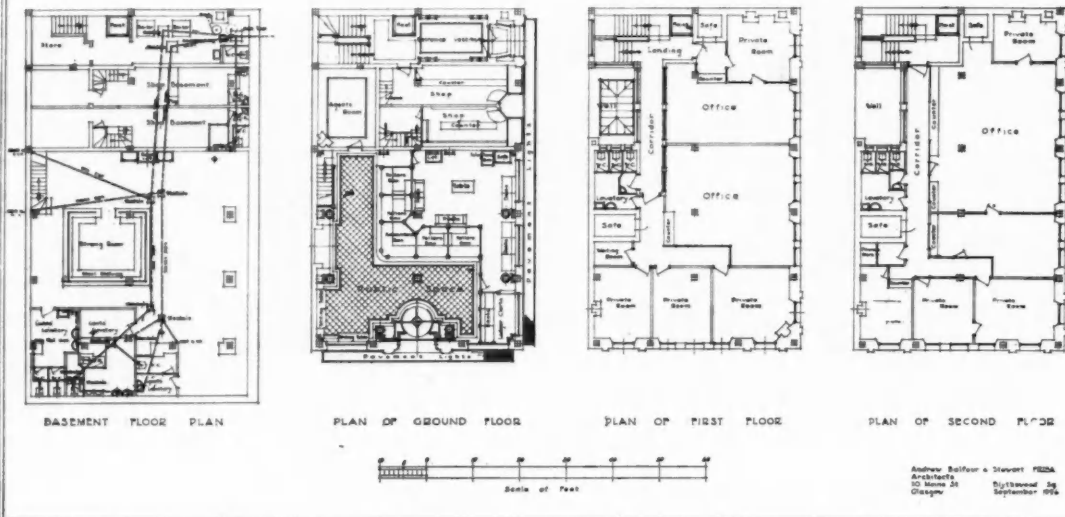
*New offices for Fraser and Borthwick, Ltd.,
Pitt Street, Glasgow. By A. D. Hislop.*



The Savings Bank of Glasgow, Muirend Branch. By Paterson and Stoddart.



THE BANK OF SCOTLAND CHAMBERS
RENFIELD ST. BRANCH



Bank of Scotland, Renfield Street, Glasgow. By Andrew Balfour and Stewart. Above, a view in the banking hall. Below, the plans.

architects were presented with the first R.I.B.A. medal awarded for this, the best building recently erected in Scotland.

Apart from the new municipal office block, the street

is extending from the centre to the older west-end residential quarters of the city. Of complete new buildings, the offices and showrooms of the Metro-Vick Electrical Company in Waterloo Street is a good instance. The structure is steel



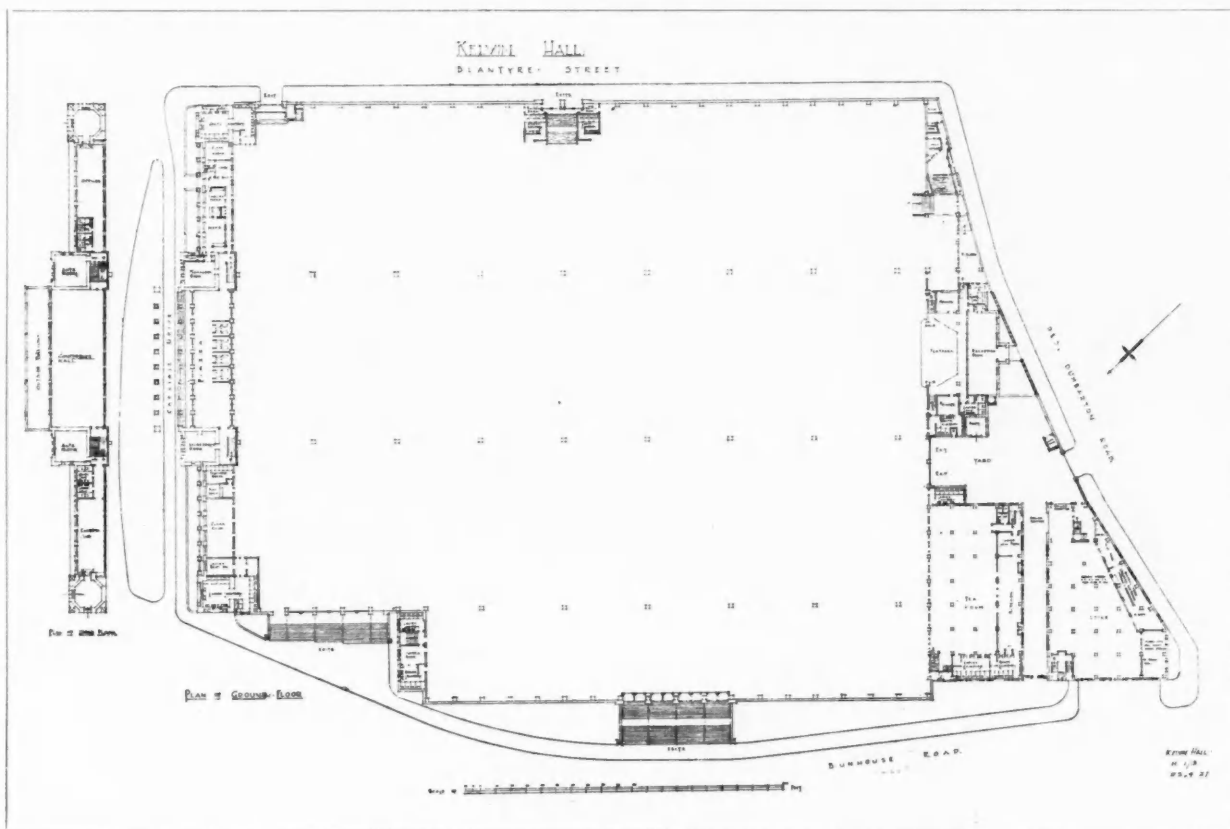
*Bank of Scotland, Renfield Street,
Glasgow. By Andrew Balfour and Stewart.*

seems to be in demand for offices and office buildings by insurance companies, banking companies, and the like. Many existing buildings have been gutted to provide accommodation, and so the office or Glasgow business area

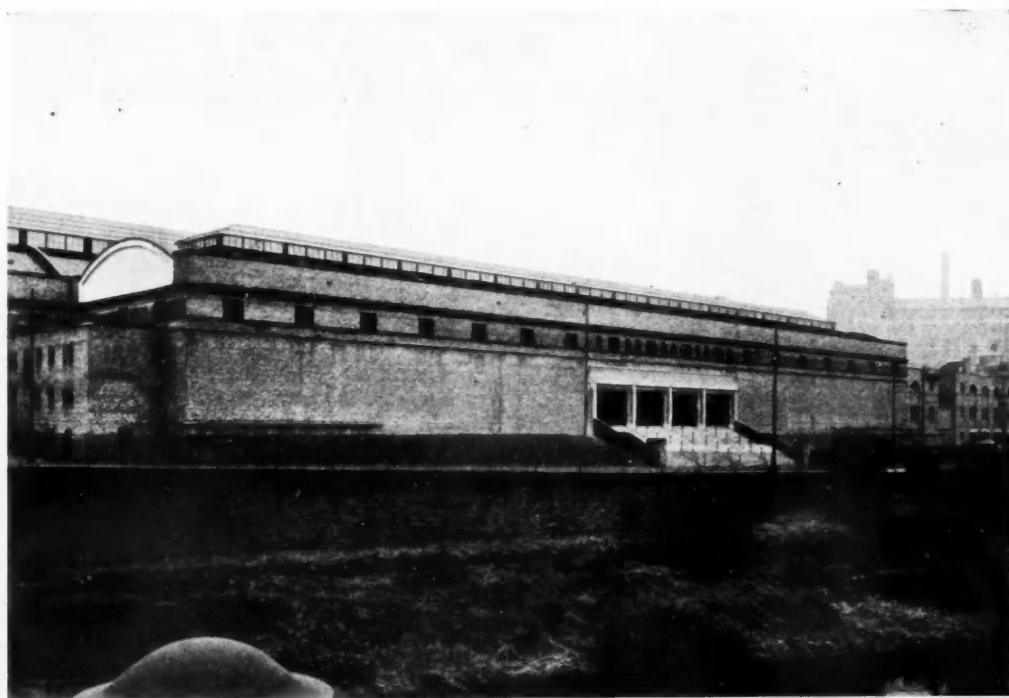
framed, and faced with Travertine and black marble on the ground floor, and with sandstone on the upper stories. The problem was to provide large uninterrupted floor area and window space. One stanchion appears in the interior



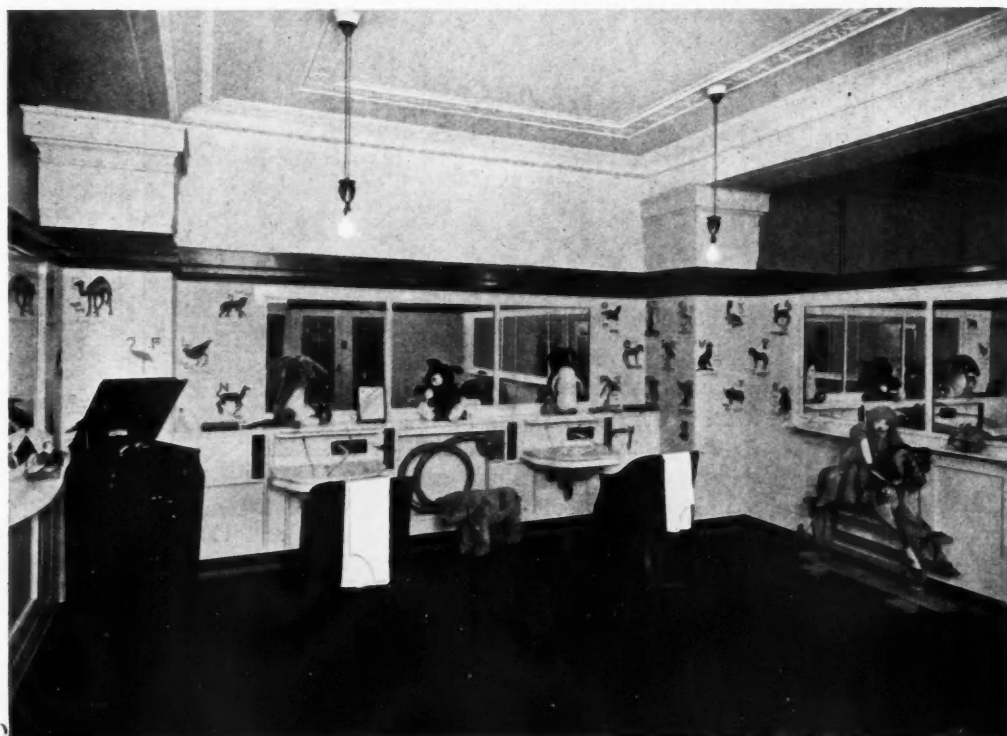
*The Union Bank of Scotland,
Glasgow. By James Miller.*



Kelvin Hall, Glasgow. By Thomas Somers.



Above, Kelvin Hall, Glasgow. By Thomas Somers. The side elevation. Below, extension of Pettigrew and Stephens' premises, Bath Street, Glasgow. By Keppie and Henderson.



Extension of Pettigrew and Stephens' premises, Bath Street, Glasgow. By Keppie and Henderson. The hairdressing saloon. Below, the children's room.

showroom area only, and the shop front shows 36 ft. clear span. The design of the exterior is well knit together and sturdy in proportions. The main entrance doorway is well detailed, but its character does not seem to be in direct harmony with the rest of the building. The sculptured heads on the main cornice are interesting examples of good stone craftsmanship.

In Glasgow, as in other cities, the increase in the number of bank buildings and the way in which they have occupied the finest corner sites has been a marked feature of street architecture since the war. It is probably realized by shrewd bankers that there are few better forms of investment than a good building on a good site. The new Bank

architect and craftsmen, but, what is of first importance, between architect and client. "No work of art can be perfect," says Ruskin. We may not agree with the effect of equality in the proportions of the upper and lower orders of this building; the great crowning cornice may not express the level of the roof; the decorative details of the bronze panels may be small in scale; the shops facing Renfield Street may appear to be sandwiched between the pilaster bases; yet, nevertheless, it is agreed that we are in the presence of a work of rare quality. This new bank building sets a fine new scale; a standard, it is hoped, not only for architects in Glasgow, but for clients, too.

The Muirend branch of the Glasgow Savings Bank is a



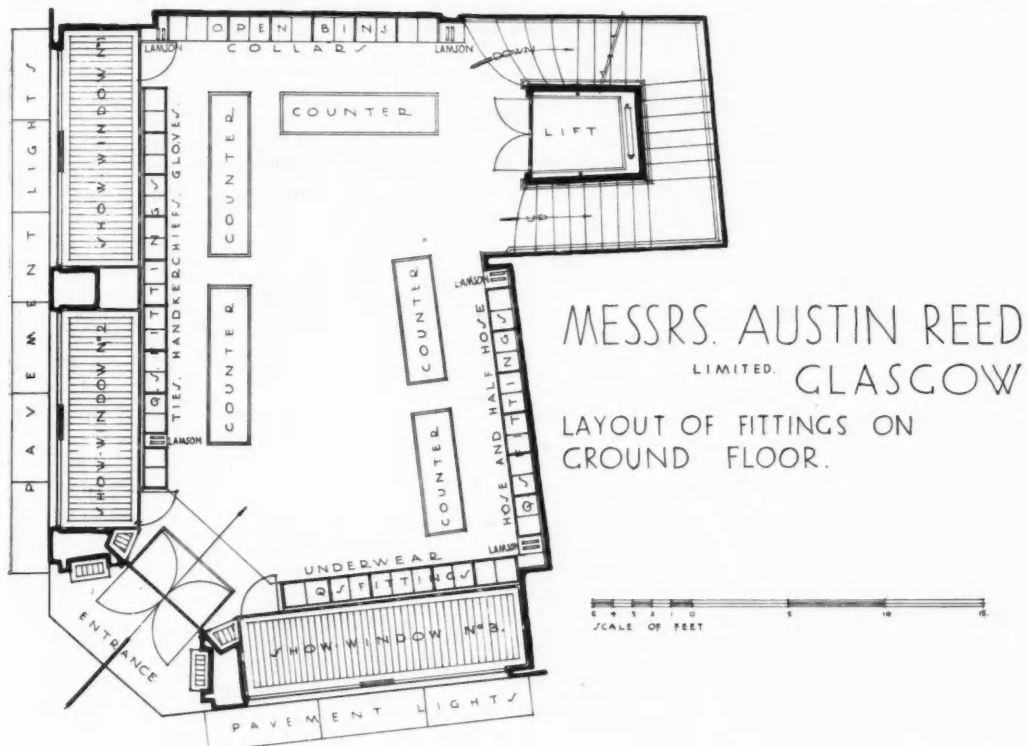
*Austin Reed's, Renfield Street and Gordon Street, Glasgow.
By P. J. Westwood and Emberton. The entrance.*

of Scotland, Renfield Street branch office block at the south-east corner of Renfield Street and St. Vincent Street, is a steel-framed building faced with Blayter sandstone, and has a grey granite base-course.

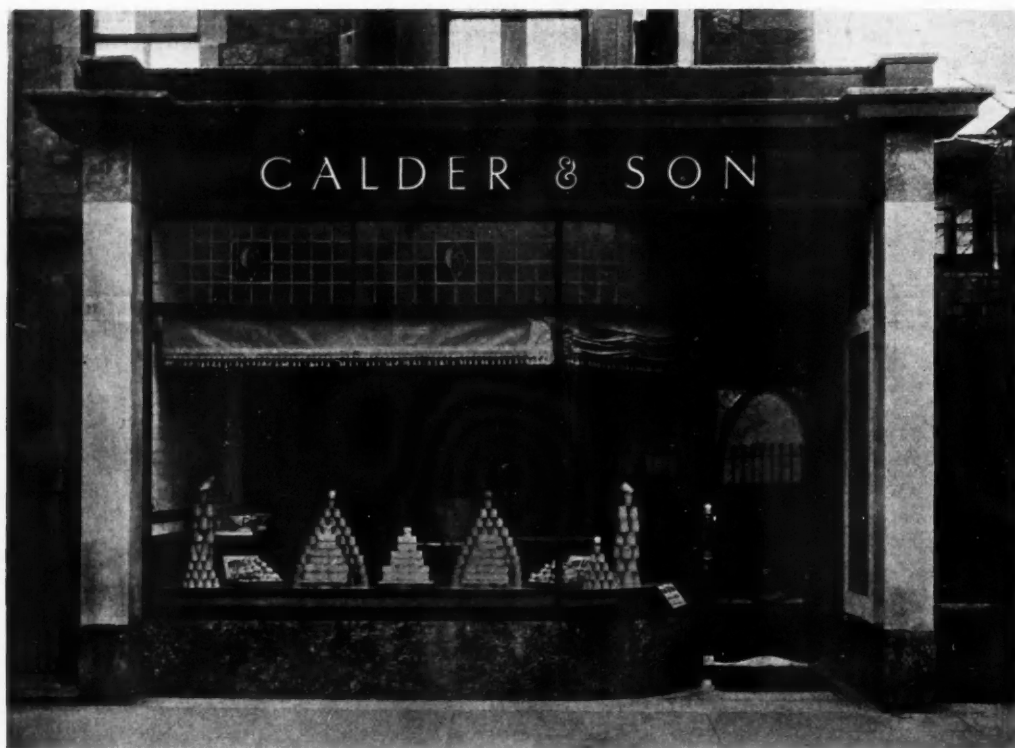
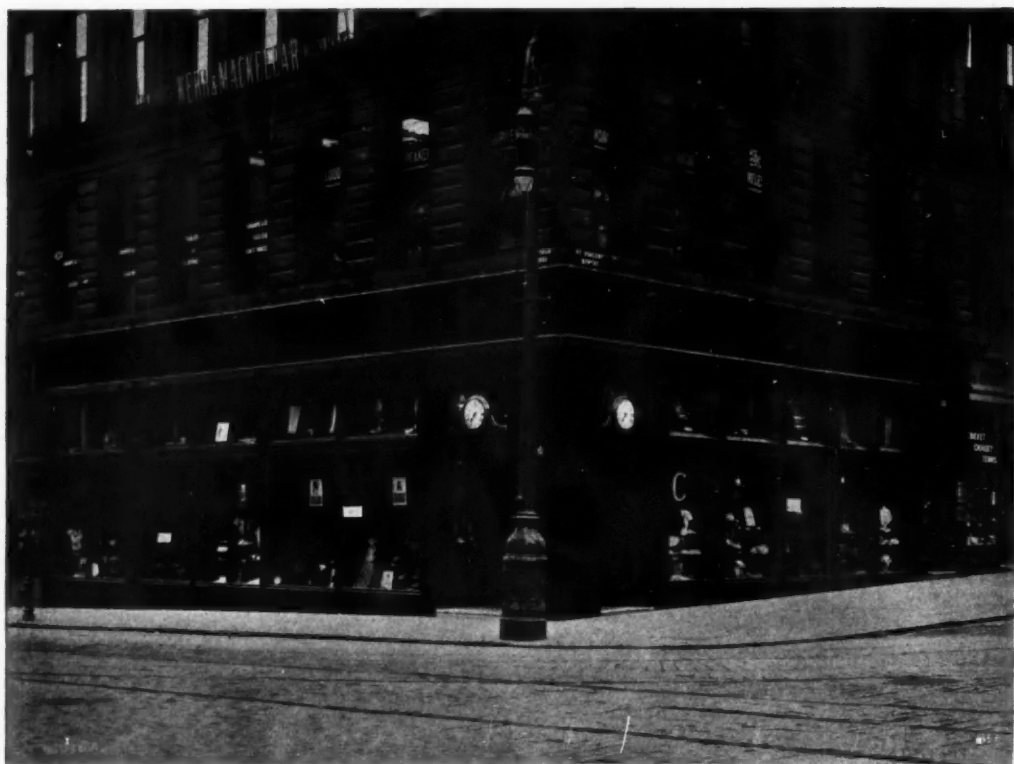
At the diagonally opposite corner of the same street stands the head office of the Union Bank of Scotland, just completed. It is probably the finest, largest, and most noteworthy building erected in Glasgow within recent years. It is built of a stone new to Glasgow, from Heworth Quarry, Northumberland. The texture and colour meanwhile are most satisfactory. The building is dignified, refined in detail, and most impressive. A certain quite satisfying character suggests concord not only between

pleasing instance of a small suburban bank building—suburban in scale and character, and built of white sandstone.

Within the Glasgow University precincts there has been much building activity. The new zoology block was fully described and illustrated in a recent number of *THE ARCHITECTS' JOURNAL*. The large extension to the arts section, nearing completion, includes the Memorial Chapel, an interesting Gothic structure built of Blayter sandstone. In the university grounds and on the axis of the Bute Hall, facing University Avenue, stands a small memorial of note. Erected to the memory of the Hunter brothers, it is simple and effective; an essay on the elements of composition.



Austin Reed's, Renfield Street and Gordon Street, Glasgow. By P. J. Westwood and Emberton. Above, the hat department. Below, lay-out of fittings on ground floor.



Above, premises, St. Vincent Street, Glasgow. By Watson, Salmond and Gray. Below, premises for Calder and Son. By A. Hamilton.



*Shopping premises and store in Sauchiehall
Street, Glasgow. By Wright and Wylie.*

The memorial is built of white sandstone with a carved inset of grey granite portraying St. Mungo; the portrait medallions and arms are of cast bronze. The whole is dignified and impressive in its setting.

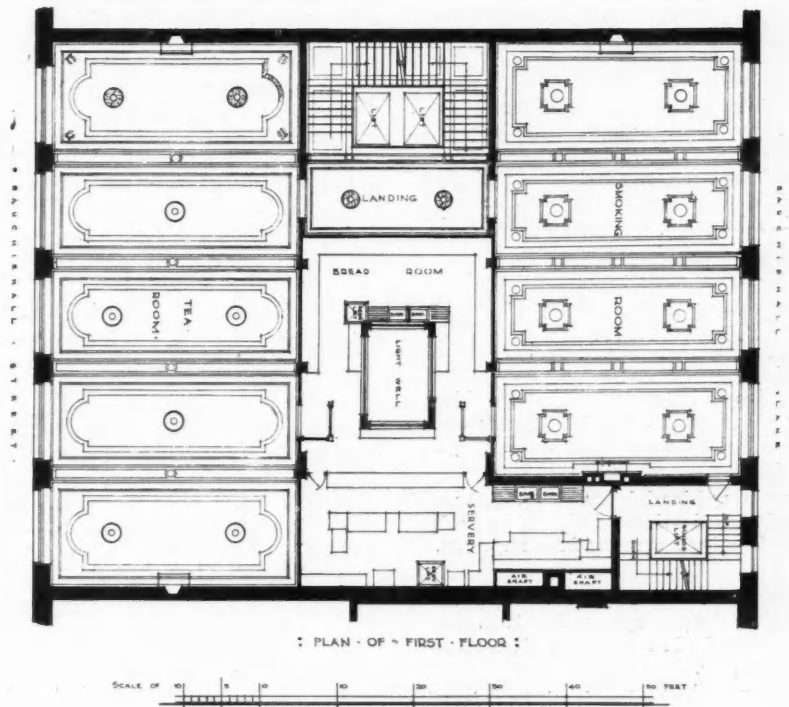
Of the more or less utilitarian buildings, the new Kelvin Hall, opposite the Art Galleries, is of great interest as a pioneer work in reinforced concrete. The vast area, 171,000 sq. ft., the largest of its kind in Britain, is covered with a reinforced concrete roof. The trusses span 110 ft. clear, the largest yet attempted in this material. The scheme is such that only twenty-two columns are required in the floor area. The result is a hall at once spacious, light, and airy, effects due entirely to the use of reinforced



concrete. The structure is admirably suited for exhibition purposes.

Following a visit to Glasgow in 1727, the "True-born Englishman," none other than Daniel Defoe, wrote: "Glasgow is a large, stately, well-built city . . . the principal streets are the finest built that I have seen in one city together. In a word, 'tis one of the cleanliest, most beautiful, and best built cities in Great Britain." A study of buildings recently erected in Glasgow will but convince that the city is enterprising and progressive, and more than endeavouring to maintain her reputed high standard in design and craftsmanship.

*Left, Lumley's, Sauchiehall Street, Glasgow.
By W. Inglis. Right, entrance to 111
Union Street, Glasgow. By A. D. Hislop.*



James Craig's premises, Sauchiehall Street, Glasgow. By James Carruthers.

CORRESPONDENCE

MANCHESTER TOWN HALL COMPETITION

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—My attention has been called to certain words in my article in THE ARCHITECTS' JOURNAL for October 5, which appear to be contradictory. Readers have observed my commendation of the circular form of main reading hall similar to the one used for the Printed Books Department at the British Museum and by the Library of Congress at Washington. After this commendation, the following words occur: "In this design alone the whole of the library apartment has been arranged within the rotunda containing the main reading hall. How far this would be convenient will remain to be seen as a curved apartment cannot be naturally supervised quite so easily and economically as a rectangular one."

These two sentences should have read as follows: "In this design alone the whole of the library apartments have been arranged within the rotunda containing the main reading hall. How far this would be convenient would remain to be seen, as curved apartments cannot naturally be supervised quite so easily and economically as rectangular ones."

The curved apartments to which I referred particularly were those shown on the first-floor plan and which surround the main reading hall. The rooms referred to were the technical and science library, the commercial library, the music library, and exhibition room. Owing to the sentence having been printed in the singular, it appears to have been thought that I might be referring to the main reading hall, which, being absolutely circular is the very best form of room for supervision by anyone situated in the centre. I trust that this explanation will make my meaning quite clear.

JOHN SWARBRICK

WALL TILES

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—With reference to the letter of Mr. H. Falkner, animadverting upon the great difficulty in getting a good tile for grate surrounds or bathrooms, I venture to draw your attention to the Dome of the Rock tile manufactory in Jerusalem, established by myself in 1918 as part of the activities of the pro-Jerusalem Society. That Society, having accomplished its purpose, has now been dissolved, but its various buildings and enterprises remain, and full details of the tile factory may be obtained from Mr. A. C. Holliday, A.R.I.B.A., in Jerusalem, or from Miss Jaqueline, 18 Eaton Place, London S.W.1. The colour of the tiles is strong and good, the designs original and interesting, and the price low; and I cannot help thinking that your readers would be glad to encourage an industry in this recently depressed section of British mandated territory.

RONALD STORRS
(Governor of Cyprus)

ANNOUNCEMENTS

Messrs. Percy Tubbs, Son and Duncan, chartered architects, have transferred their offices to No. 39 Great James Street, Bedford Row, W.C.1. Telephone numbers: Museum 5809 and 6235.

Sir John Soane's Museum, 13 Lincoln's Inn Fields, W.C.2, will be open free on Thursdays and Fridays during October from 10.30 a.m. to 5 p.m., and during November from 10.30 a.m. to 4 p.m.

The Council of the Iron and Steel Institute has recently awarded the Carnegie gold medal for the year 1925 to Mr. A. L. Curtis, Westmoor Laboratory, Chatteris, in recognition of his research work on steel-moulding sand, etc.

The committee of the Leplay House Educational Tours Association would like to inform all those interested in historical, geographical, and sociological studies, that during the coming

Christmas vacation there will be a visit to Sicily to study the history of the island, mainly through its architecture, under the leadership of Mr. Stanley Ramsey, F.R.I.B.A.; also a regional survey meeting will be held at the College des Ecosais, Montpellier, by invitation of Professor P. Geddes. The studies are under the direction of Mr. George Morris, B.Sc. For full particulars write to Miss Margaret Tatton, F.R.G.S., Leplay House, 65 Belgrave Road, Westminster, S.W.1.

SOCIETIES AND SCHOOLS

Nottingham and Derby Design Club

The Nottingham and Derby Architectural Society Design Club held its first meeting of the session at Nottingham. Mr. F. M. Royle presided, and several designs for an open-air concert platform were criticized by Mr. T. C. Howitt, A.R.I.B.A. The first prize was awarded to Mr. C. J. Parker, the second to Mr. P. Gerrard, and the third to Mr. A. J. R. Marshall.

South Yorkshire Architects

According to the thirty-ninth annual report of the Sheffield, South Yorkshire and District Society of Architects and Surveyors, the total membership now stands as follows: Thirty-nine Fellows; forty-six Associates; three students; four lay members; making a total of ninety-two as against seventy-one last year. Among the important matters that have occupied the Council is the creation of a joint consultation board of local architects and builders to deal with any difficult questions which may occur between the two bodies. Among other professional matters which have engaged the attention of the Council during the year is the question of research work in building materials, experiments in which are being carried on at the Applied Science Department of the University; matters relating to the Architects' Defence Union, Standard Methods of Measurement, Damp-proof Courses, R.I.B.A. Maintenance Scholarships, the alteration in the hour of lectures, and also general questions of finance.

The R.I.B.A. Archibald Dawnay Scholarships

In accordance with the terms of the will of the late Sir Archibald Dawnay, the Royal Institute of British Architects have awarded one scholarship of £75 for the academical year 1927-1928 to Mr. G. R. Beveridge, of the School of Architecture, the Architectural Association, and one scholarship of £50 for the academical year 1927-1928 to Mr. W. G. Plant, of the School of Architecture, University of Liverpool. Miss C. W. Preston, of the School of Architecture, the Architectural Association, who was awarded a scholarship of £75 for the academical year 1926-1927, has been granted a renewal of her scholarship for the year 1927-1928. The scholarships are intended to foster the advanced study of construction and the improvement generally of constructional methods and materials and their influence on design.

The Technical College, Cardiff

A scholarship covering tuition fees and a maintenance grant of £40 per annum for three years at the Department of Architecture at the Technical College, Cardiff, has been awarded to Mr. W. J. Davies, of Nantymoel, Glamorgan. These scholarships are open to residents and non-residents of Cardiff, and are awarded annually on the results of an examination, of about the same standard as matriculation, in the following subjects: English, mathematics, a modern language, physics with mechanics or chemistry, higher mathematics and history or geography or elementary architectural drawing. Candidates must satisfy the head of the Department of Architecture as to their ability in elementary drawing. Further particulars concerning these scholarships will be supplied on application to Mr. W. S. Purchon, M.A., A.R.I.B.A. (head of Dept. of Architecture), the Technical College, Cardiff.

Architectural Education

At University College School of Architecture, a special course of five lectures on "The London Building Acts as affecting the

practising Architect" will be delivered by Professor R. Elsey Smith on Mondays at 6 p.m., beginning October 24. Among the public lectures that have been arranged for the first term is "The Equipment of a Medieval House," by Mr. H. Clifford Smith, Assistant Keeper, Victoria and Albert Museum, on Tuesday, December 6, at 5.15 p.m. Particulars of these and other public lectures may be had on application to the Secretary, University College, London, W.C.1. A stamped addressed envelope should be enclosed.

Prospectuses have reached us from the Department of Architecture and Civic Design of the Leeds College of Art, and from the Northern Polytechnic School of Architecture.

At the Department of Architecture and Civic Design of the Leeds College of Art the three years' full-time course leads to the school certificate in architecture and exemption from the Intermediate Examination R.I.B.A., and the five years' course to the school diploma in architecture. By means of these courses it is possible for the student, on leaving a secondary or public school with the matriculation or other similar qualification, to receive a complete professional training in architecture and to qualify for the Associateship of the R.I.B.A. By arrangement with the Leeds and West Yorkshire Architectural Society, a part-time course has been established for the pupils in their offices. This course consists of full-time attendance in school for two years, when a thorough grounding in the elementary subjects related to architecture is given, and followed by attendance at the office for three subsequent years with attendance at evening classes. This course has also been recognized by the R.I.B.A. for exemption from the Intermediate Examination. An extensive programme of scholarships is provided to assist deserving students to attend the full-time day courses. The head of the Department of Architecture and Civic Design is Mr. Joseph Addison, M.C., A.R.I.B.A., M.I.STRUCT.E., A.M.T.P.E., DIP. ARCH. (ABERDEEN).

The Northern Polytechnic School of Architecture is also recognized by the R.I.B.A. In the day school of architecture the London County Council offers annually a few scholarships to residents in the County of London for students between sixteen and eighteen years of age, and the Middlesex County Council a few scholarships for those resident in Middlesex. The course of study covers three years. Prizes are awarded annually for the best work in various sections. Special prizes are offered annually by members of the profession interested in the work of the school. The following were awarded during the session 1926-27: Prizes for order composition, studio drawing, architectural design, building construction and working drawings. Special prizes: C. H. James, for esquisse-esquisse; John Tiranti & Co., for architectural design; Fredk. R. Hiorns, for Renaissance composition in colour; scholarship, value £50 per annum for two years, awarded by the Leeds Fireclay Company, Ltd., for work in terra-cotta. The school diploma is awarded to all students who successfully complete the course of three years and obtain a satisfactory pass in the term examinations. Exemption from the R.I.B.A. Intermediate Examination is granted to students who complete the full three years' course in the school, and obtain a first or second class pass in the school examination. In the evening school, students under eighteen years of age resident in London, Middlesex or Kent may be admitted at half the fees charged for adults. The London County Council offers annually a number of evening exhibitions. Prizes are awarded annually for the best work in various sections. Special prizes are offered annually by members of the profession interested in the work of the school. The following special prizes were awarded during the session 1926-27: National Association of Shopfitters, for design; John Tiranti & Co., for order composition; Stanley Hamp, for linen tracing of working tracing; Mary Edis, for esquisse-esquisse. The school diploma is awarded to all students who successfully complete a five years' course and obtain a satisfactory pass in the school examinations. A pass in the entrance examination of the day school is accepted by the R.I.B.A. as qualification for registration as probationer. Evening students may sit for this examination upon application to the secretary. The course of study is arranged

so that it will enable students to sit for the R.I.B.A. examinations during or at the end of their training. The head of the school of architecture is Mr. T. P. Bennett, F.R.I.B.A.

COMPETITION CALENDAR

The conditions of the following competitions have been received by the R.I.B.A.:

November 30. New town hall and municipal buildings, proposed to be erected on a site in the Broadway, Wimbledon, for the Wimbledon Corporation. Assessor: Mr. H. V. Ashley, F.R.I.B.A. Premiums: £200, £150, and £75. Particulars from Mr. Herbert Emerson Smith, LL.B., Town Clerk. Deposit £2 2s.

December 15. The Portland Cement Selling and Distributing Co., Ltd., announce a competition for architects, with prize awards totalling £1,000. The President of the R.I.B.A. has appointed the following assessors: Messrs. Maxwell Ayrton, F.R.I.B.A.; William Edward Riley, F.R.I.B.A., M.I.C.E., R.B.A., member of the Council of the Royal Sanitary Institute, late superintending architect of Metropolitan Buildings and architect to the London County Council; Douglas G. Tanner (Douglas G. Tanner and Arthur L. Horsburgh), consulting architects to the *Daily Mail* Ideal Home Exhibition; and Baker and Mallett, quantity surveyors. There will be two sections of the competition, "A" and "B"; the prize awards in each being: first prize, £250; second prize, £150; third prize, £100. In section "A," designs for a house in concrete costing £1,750 are called for, and in section "B," for a house in concrete costing £750. The winning designs will be erected at Olympia for the *Daily Mail* Ideal Home Exhibition. Any questions must be addressed to the Secretary, Concrete Houses Competition, Ship House, 20 Buckingham Gate, London, S.W.1, before October 24.

RECENT WORK IN GLASGOW

Following are the names of the proprietors, architects, contractors, and some of the sub-contractors for the buildings illustrated on pages 497 to 521:

Metro-Vick House, 74 Waterloo Street, Glasgow. Proprietors, Metropolitan-Vickers Electrical Co., Ltd.; architect, Mr. James Taylor Thomson, Glasgow; clerk of works, Mr. John Montgomery, Glasgow; price per foot cube, 2s. 3d. Miss Phyllis M. Bone, Edinburgh, designed and modelled the carved blocks on stone cornice (animal heads). P. and W. Anderson (Glasgow), Ltd., demolition, underpinning, excavation, stonework, and Caithness stone dampcourses; Melville, Dundas and Whitson, reinforced concrete foundations and retaining walls; Scottish Enamelled Co., Ltd., white enamelled bricks; Redpath, Brown & Co., Ltd., structural steel; Gray's Ferro-Concrete Co., Ltd., patent Fram block floor; Henry Hope and Sons, Ltd., sub-contractor to A. and G. Gray, patent glazing; Docker Brothers, Ltd., Induroleum flooring; Metro-Vick Supplies, Ltd., electric light fixtures; Shanks & Co., Ltd., sanitary fittings; Travertino stairtreads; Harcourts, Ltd., door furniture; Frederick Braby & Co., Ltd., casements, window furniture, and iron staircases; Haywards, Ltd., folding gates; John Bryden and Sons, outside and inside window blinds; J. M. Pirie & Co., Ltd., bronze door; David M. Tyre, hoist enclosure; Galbraith and Winton, Ltd., marble and wall tiling; Charles Henshaw, bronze shop windows, frames, lettering, etc.; Medway's Safety Lift Co., Ltd., and John Bennie, Ltd., lifts.

Dalmarnock Electricity Works, Dalmarnock Road, Glasgow. Proprietor, Glasgow Corporation Electricity Department; architect, Mr. R. B. Mitchell, M.I.E.E.; John Train & Co., digger work, concrete, brick, and stone work; Wm. Baird and Son, iron and steel work; Hugh Twaddle and Sons, plumber work; Andrew Gardner, Junr., painter work; Helliwell & Co., patent roof glazing; J. Broadfoot and Sons, Ltd., "Teakoid" jointless flooring.

Glasgow Cross Improvements. New building for the Corporation of the City of Glasgow. Architects, Messrs. John Keppie and Henderson; Messrs. John H. Allan and Sons, surveyors; Redpath, Brown & Co., steel work; Hugh Twaddle and Sons, plumber work; G. and R. Wemyss, plaster work; Limmer and Trinidad Lake Asphalt Co., Ltd., asphalt work; Fredk. Braby

& Co., Ltd., steel windows; James Combe and Son, Ltd., heating work; Johnston, Park & Co., electric lighting; David M. Tyre, metal work; Korkoid and Ruboleum Tile Co., Ltd., Ruboleum tiles.

Pettigrew and Stephens, Ltd. Architects: Messrs. John Keppie and Henderson; surveyors, Messrs. John Baxter and Dunn. Thaw and Campbell, mason work; Redpath, Brown & Co., steel work; John Cochrane, joiner work; S. D. Murray, heating work; Birmingham Guild, Ltd., bronze work; Waygood-Otis, Ltd., lifts; Lamson Pneumatic Tube Co., pneumatic tubes; Sturtevant Engineering Co., vacuum cleaning system; A. Sauvé & Co., parcel chute; F. Sage & Co., showcases and fittings; John Bryden and Sons, outside sunblinds.

Luncheon and Tea Rooms, 123-133 Sauchiehall Street, Glasgow. Proprietors, Messrs. James Craig (Glasgow), Ltd.; architect, Mr. James Carruthers; clerk of works, Mr. Donald McIntyre. Alex. Muir and Son, demolition, excavation, and foundations; Darney stone; Redpath, Brown & Co., Ltd., structural steel; James Combe and Son, central heating; Colin Turner, Ltd., gas fixtures, gasfitting, and plumbing; Johnston, Park & Co., Ltd., electric wiring; Doulton & Co., Ltd., sanitary fittings; The Art Pavements and Decorations, Ltd., Biancola staircase and paving; Fredk. Braby & Co., casements; Wylie and Lochhead, interior joinery work in oak, mahogany, and walnut, comprising panelling, mantelpieces, shop fittings, and elevator cages; Waygood-Otis, lifts.

Municipal Buildings Extension. Architects: Messrs. Watson, Salmon and Gray, F.R.I.B.A. John Emery and Sons, builders; Walter Guthrie & Co., joiner; Hugh Twaddle and Sons, plumbers; Melville, Dundas and Whitson, concrete floors, etc.; Redpath, Brown & Co., steelwork; Crittall & Co., steel casements; Johnston, Park & Co., Ltd., electrical fittings; John Bryden and Sons, inside window blinds.

Kelvin Hall, Glasgow. Proprietors, Corporation of Glasgow. By Mr. Thomas Somers, M.Inst.C.E., city engineer and master of works. General contractors: Messrs. John Train & Co., Ltd., Edmeston Brown & Co., electric light and telephones; James Combe and Son, heating; Associated Fire Alarms, Ltd. Contract price, £207,000. John Train & Co., bricks and stone; Pennycook's, Mellowes Eclipse, Helliwell's, patent glazing; Doulton & Co., Ltd., sanitary fittings; Wylie and Lochhead, constructional joinery work and panelling.

Austin Reed, Glasgow. Architects: Messrs. P. J. Westwood and Emberton. Redpath, Brown & Co., Ltd., steelwork; Robert Gilchrist and Son, Ltd., masonry and steelwork; A. and P. Steven, Ltd., lifts; Hugh Twaddle and Sons, plumbing; Fenning & Co., Ltd., marble work; Harris and Sheldon, Ltd., shop fronts and interior fittings; Korkoid and Ruboleum Tile Co., Ruboleum tiling; Lamson Pneumatic Tube Company's installation.

Albion Motor Car Company's General Offices, South Street, Scotstoun, Glasgow, for the Albion Motor Car Co. Architect: Mr. Alexander N. Paterson, M.A., A.R.S.A., F.R.I.B.A.; builders, Messrs. John Emery and Sons, Glasgow. Jas. Cormack and Sons, central heating; Osborne and Hunter, electrical equipment; David M. Tyre, stair railing, balcony rail, vestibule screen, and works gate.

Albion Motor Car Co. Works, Glasgow: Western Extension and Boiler-house. Architects: Wallis, Gilbert and Partners. General contractors, Wm. Shaw and Son, Ltd. Stuart's Granolithic Co., concrete floor and granolithic paving; Mellowes & Co., Ltd., patent glazing; Clyde Structural Iron Co., steelwork; Trussed Concrete Steel Co., reinforcing steel; Osborne and Hunter, electrical equipment; John Bryden and Sons, service lift.

Lumley's Warehouse, Sauchiehall Street, Glasgow, for Messrs. Lumley's, Ltd. Architects: Messrs. Inglis and Ramsay. General contractors: Messrs. Robt. Gilchrist and Son, Ltd. Redpath, Brown & Co., Ltd., structural steel; Jas. Combe and Son, Ltd., central heating; Geo. Rome & Co., Ltd., plaster.

Branch Bank, Clarkston Road, Muirend, Glasgow. Proprietors, The Savings Bank of Glasgow. Architects: Messrs. A. N. Paterson and Stoddart; builders, A. Muir and Sons. Johnston, Park & Co., electric wiring and electric light fixtures; Hugh Twaddle

and Sons, Glasgow, plumbing; P. and W. McLellan, fireproof doors; John Bryden and Sons, inside window blinds; Humphries, Jackson and Ambler, Ltd., metalwork; William Allan and Cowan, joinery; A. Muir and Sons, stonework.

Bank of Scotland Chambers, corner of St. Vincent and Renfield Streets, Glasgow. Proprietors, The Bank of Scotland. Architects: Messrs. Andrew Balfour and Stewart, F.R.I.B.A.; clerk of works, Mr. R. C. Podmore; contract price, £48,000, ex. fees; price per foot cube, 2s. 4d. or thereby. Shaw and Campbell, demolition, excavation, foundations, dampcourses, asphalt, concrete blocks, reinforced concrete, bricks, Blaxter stone, artificial stone; Redpath, Brown & Co., Ltd., structural steel; The Kleine Patent Floors; Galbraith and Winton, tiles; Henry Hope and Son, glazing and casements; Hugh Twaddle and Sons, plumbing; Shanks & Co., Ltd., sanitary fittings; Donald Clerk and Son, and Hobbs, Hart & Co., fireproof doors; Wemyss & Co., plaster and decorative plaster; Korkoid and Ruboleum Tile Co., Ruboleum tiling; MacKerron & Scott, electric wiring &c.

111 Union Street, Glasgow. Proprietor, Union Investment Company. Architect: Mr. A. D. Hislop. Shaw and Campbell, bricks, stone, &c.; reinforcement by the British Reinforced Concrete Engineering Co.; Redpath, Brown & Co., Ltd., steelwork; Pennycook, patent glazing; North British Rubber Co., patent flooring; G. N. Haden and Sons, central heating; H. Twaddle and Sons, plumbing; Shanks & Co., sanitary fittings; Toffolo, Jackson & Co., stairtreads; N. F. Ramsay & Co., door furniture; Geo. Wragge, Ltd., metalwork; John Cochrane, joinery; Shaw and Campbell, stonework; A. and P. Steven Ltd, lifts.

Warehouse, Sauchiehall Street, Glasgow. Proprietor, Miss Margaret Hunter. Architects: Messrs. Wright and Wylie; general contractors, Messrs. P. and W. Anderson, Ltd., who were also responsible for the demolition, excavation, foundations, and dampcourses, structural steelwork and stonework; clerk of works, Mr. John Montgomery; Helliwell, patent glazing; National boilers; Wm. McGeoch & Co., Ltd., door furniture; Fredk. Braby & Co., Ltd., iron staircases and revolving doors; Jas. Brown & Co., metalwork; Wylie and Lochhead, furniture; Colin Hunter, shop fittings; Waygood-Otis, lifts. Mr. David M. Tyre executed the window grilles, gate, stairs, and railing.

Messrs. Redpath, Brown & Co., Ltd., supplied the steelwork for Messrs. Carswell's premises, University Chapel, and Messrs. Maclaren's premises, and Messrs. Osborne and Hunter the electrical equipment at Messrs. Carswell's premises. Mr. David M. Tyre executed the stair and area railings at University Chapel; Messrs. Sutherland, Matheson and Reid, who are the Scottish agents for "Atlas White" Portland cement, supplied all the White Portland cement used in Messrs. Fraser and Borthwick's premises, of which the doorway is given as our frontispiece.

OBITUARY

We regret to record the death of Mr. Sidney St. J. Steadman while on a mission to Buenos Aires. For several years he was a contributor on legal matters to THE ARCHITECTS' JOURNAL. He was born in Leicester in 1855, and was educated at a preparatory school at East Dereham and Norwich Grammar School. At the age of fifteen he passed the preliminary law examination in London, and then went back to school, as he was too young to be articled. He was articled to Messrs. May, Sykes and Batten, and when only twenty-three years of age set up in practice as a solicitor in London, his firm being professionally engaged from time to time in matters of considerable public interest. He retired from active practice in 1922. At the time of his death he was a director of Marconi's Wireless Telegraph Co., of the Marconi International Marine Communication Co., Ltd., and of the African City Properties Trust, Ltd. It was while on a mission to Buenos Aires in the interests of Marconi's Wireless Telegraph Co., Ltd., that he unfortunately met his death. He was a man of considerable literary ability.

READERS' QUERIES

DIAMETER OF WATER SUPPLY PIPES

E. G. writes: "The accompanying sketch is of a galvanized iron water conduit, in which the lengths given are in metres. 1: What output per second should be allowed for the various apparatus, bath, lavatory, w.c., etc.? 2: How is it possible to calculate the diameters of the various parts of the piping, assuming that all the taps are turned on at once? The pressure at A is 20 metres of water. I should like to know what formula to apply, and, above all, how to apply it? 3: The same question as in two, but assuming that the feed is no longer at A by means of water under pressure from the town, but by means of a tank placed at N, and the piping ending at P."

1: Output is often reckoned in cubic feet per minute, and the appropriate diameters of pipes are reckoned after consideration of the amount of water needed at each point, the length of run to each point from the source of supply, and the head of water available at the source of supply. The needs vary in different districts. For example, some water-closets are permitted three-gallon cisterns and others are only given a flush of two gallons, which actually discharges in five seconds but takes three minutes to refill. A bath or a geyser or a shower-bath may use anything above 1 cub. ft. per minute, the demand being limited to some extent by the cost of water and by the habits of the householder. An estimate of what is reasonable in the inquirer's district must be made by investigation of existing installations. A list might be made out somewhat on the lines of the following:

- 1 and 7: Lavatories at $\frac{1}{2}$ cub. ft. per minute apiece.
- 2: Geyser at 1 cub. ft. per minute.
- 3: Bathroom at 1 cub. ft. per minute.
- 4: Shower-bath at 2 cub. ft. per minute.
- 5 and 6: Water-closets at $\frac{1}{2}$ cub. ft. per minute apiece.
- 8: Sink at 1 cub. ft. per minute.
- 9: Washtub at 1 cub. ft. per minute.

The above allowances are taken from examples of dwelling-houses in the south of England. The inhabitants consider them slow, but when faced with the expense of making a change to more speedy service, decline to make any alteration. They are therefore tolerated. It will be the inquirer's affair to determine the limits of practical economics in his own district.

2. Tables have been prepared by hydraulic engineers to show the approximate flow in pipes of different lengths and diameters under known conditions of pressure at the source of supply. They can only be trusted to give a general idea of the working rate of supply in particular cases because the flow is retarded by roughness and by bends in the pipe, incrustation by deposited mineral matter, and so forth. In the

chapter on hydraulics in Kidder-Nolan's *The Architects' and Builders' Handbook*, John Wiley and Sons, Inc., New York, or Chapman and Hall, Ltd., London, the rates of discharge in cubic feet per minute are given for pressures ranging from 30 lb. per sq. in. upwards. A pressure of 20 metres is nearly equal to 28½ lb. per sq. in., which may be considered sufficiently near to 30 lb. for practical purposes.

The distance from the main at A on the diagram to the most distant fitting No. 8 is 36½ metres, or nearly 120 ft. This fitting, the sink, has been allotted a supply of 1 cub. ft. per minute, and a diameter of $\frac{5}{8}$ in. suggests itself as about the right thing for this branch. The table does not happen to give figures for a length of pipe of 120 ft., but a $\frac{5}{8}$ in. diameter pipe 100 ft. long is listed to deliver 1'16 cub. ft. per minute, and a pipe of the same diameter and length with a 15 ft. vertical rise is listed to deliver 96 cub. ft.

Fitting No. 6 is only 3 metres from a junction at F on the diagram, and only requires $\frac{1}{2}$ cub. ft. per minute according to the list; it is, however, only one metre from a junction with fitting No. 7, which requires $\frac{1}{2}$ cub. ft. per minute also. Pipes of $\frac{5}{8}$ in. diameter should serve for these two branch services from junction F. From junction C to F is nine metres, and a supply of 2 cub. ft. per minute might be needed if all taps are open at once; $\frac{3}{4}$ in. diameter pipe is suggested.

The branch from junction C extends 8 metres to fitting 4, the shower-bath, which is listed at 2 cub. ft. per minute. But fittings 1, 2, 3 and 5 are also supplied by the same branch, making in all a demand for $2 + \frac{1}{2} + 1 + 1 + \frac{1}{2}$ equals 5 cub. ft. per

minute in the pipe from C to N, $\frac{4}{5}$ from N to O, 4 from O to the branch to fitting No. 2.

One inch diameter pipe is suggested from C all the way to fitting 4. The branch to fitting No. 1, a lavatory basin, may be of $\frac{1}{2}$ in. diameter. Branch connections to Nos. 5, 2 and 3 may be $\frac{5}{8}$ in. diameter. From C to P the demand will be for 7 cub. ft. through a 15 ft. length of pipe, and from A to P the total of 8 cub. ft. will be required to flow through a pipe 66 ft. long. A pipe with a diameter of $1\frac{1}{2}$ in. will fulfil this requirement. The branch to fitting No. 9, the washtub, may be $\frac{5}{8}$ in. diameter.

3: Placing the source of supply at N instead of at A would involve making a main line of supply from N to O capable of delivering 8 cub. ft. at N, 7 at F, 6 at C, and $4\frac{1}{2}$ at O. Provided the tank is elevated sufficiently to produce a pressure of approximately 30 lb. per sq. in., the diameters of the pipes would be N to M $1\frac{1}{2}$ in., M to F $1\frac{1}{2}$ in., F to C $1\frac{1}{2}$ in., C to O $1\frac{1}{2}$ in. Branches: from C to fitting No. 9 $\frac{5}{8}$ in. diameter, from O to fitting No. 4 1 in. diameter, O to fitting No. 1 $\frac{1}{2}$ in. diameter. Branch connections to fittings Nos. 5, 2 and 3 $\frac{5}{8}$ in. diameter, to fitting No. 8 $\frac{5}{8}$ in. diameter; fitting No. 7 may be supplied from a pipe of $\frac{1}{2}$ in. diameter; fitting No. 6 also by $\frac{1}{2}$ in. pipe.

If the tank will not be placed so high as to produce a pressure of 30 lb. the diameters of the pipes must be increased to make up for the loss of head. A rough working tradition in use among hydraulic engineers governs ordinary domestic practice. When the supply is at high pressure, or over 20 lb. to the sq. in., supplies to the usual fittings are standardized at the following sizes: baths $\frac{5}{8}$ in., basins $\frac{1}{2}$ in., water-closet cisterns $\frac{1}{2}$ in., sinks $\frac{1}{2}$ in., urinals $\frac{5}{8}$ in. for ordinary lengths of pipe run. If the pressure is lower than 20 lb. per sq. in., $\frac{5}{8}$ or $\frac{3}{4}$ in. diameter pipe is substituted for $\frac{1}{2}$ in., and $\frac{3}{4}$ or 1 in. diameter pipe is substituted for $\frac{5}{8}$ in. Many advantages are gained by the adoption of pipes of large diameter, so that if the installation of a low-level tank at N is contemplated at some time in the future, it will be good economy to use pipes of ample diameter in the first instance, particularly along the main run from A to M.

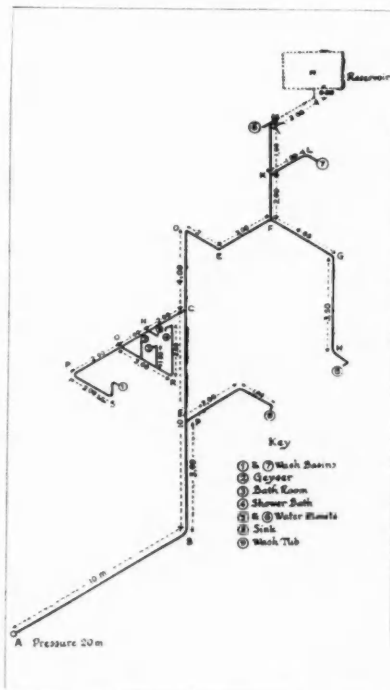
W. H.

RATES OF WAGES OBTAINING IN WEST DRAYTON

J writes: "What are the rates of wages obtaining in West Drayton and Yiewsley?"

Excavator or navvy 1s. 4d., scaffolder 1s. 5d., bricklayer 1s. 9d., mason 1s. 9d., mason fixer 1s. 10d., carpenter or joiner 1s. 9d., slater 1s. 9d., plasterer 1s. 9½d. to 11s. per week exs., smith 1s. 8½d., plumber 1s. 9d., gasfitter and fitter 1s. 8½d., painter, glazier and paperhanger 1s. 8d., labourers, any trade, 1s. 4d., french polisher 1s. 8½d.

B. O. F.



THE WEEK'S BUILDING NEWS

The city architect of MANCHESTER has prepared plans for the erection of a swimming bath at Levenshulme.

*

The BIRKENHEAD Corporation has asked the borough engineer to report on a scheme for the erection, on various sites, of 100 houses that can be let at cheap rents.

*

The borough engineer of BIRKENHEAD has prepared plans for the erection of twenty terrace houses at Agnes Road, Mersey Park.

*

The SHEFFIELD Corporation has approved proposals of the Markets Committee for the expenditure of £49,000 in connection with the addition of twenty-two island stands and the installation of cold storage at the new wholesale meat market.

*

The SHEFFIELD Watch Committee has now authorized the construction of a fire station in Hammerton Road, Walkley, by direct labour, at an estimated cost of £10,000.

*

The city engineer of LEEDS has been asked to prepare sketch plans for the erection of a public washhouse and district baths at Carr Crofts, Armley.

*

The BOLTON Corporation proposes the allocation of 100 acres of land on the Lostock estate for the purpose of the proposed municipal golf course.

*

The BOLTON Watch Committee has approved amended plans submitted by Mr. J. A. Watson for the proposed Capitol Cinema to be erected at Churchgate.

*

The BOLTON Corporation has passed plans submitted by Greyhound Racing and General Entertainments, Ltd., for a racing track and sports ground at Salford Road, Bolton.

*

The trustees of the Clarksfield Baptist Church are to erect a new church at the corner of Goss Hall Street and Eric Street, OLDHAM.

*

The Board of Control is urging the STOKE-ON-TRENT Corporation to provide additional institutional accommodation for mental defectives.

*

The Worcestershire Education Committee has acquired further land for the site of the proposed secondary school at BROMSGROVE.

*

The WORCESTER City Council and the County Council are to join in a scheme for the provision of smallpox hospital accommodation on land adjoining the Worcester Isolation Hospital.

Plans passed by the STOKE-ON-TRENT Corporation: Additions, Waterloo Works, Burslem, for Messrs. T. and R. Boote, Ltd.; shop, High Lane, for Burslem Co-operative Society; additions, Trent Works, High Street, Fenton, for Messrs. Ball and Robinson; alterations, Congregational Church, High Street, Tunstall, for trustees; alterations, Blue Bell Hotel, Broad Street, Hanley, for Messrs. F. Myatt, Ltd.; warehouse, Ivyhouse Paper Mills, Commercial Road, Hanley, for Messrs. Britains, Ltd.; alterations, Sutherland Inn, Sutherland Road, Longton, for Messrs. Worthington, Ltd.; twelve houses, Cauldon Road, Hanley, for Mr. T. Horwill; six houses off Lincoln Road, Trent Vale, for Messrs. Ball and Robinson; alterations, Dolphin Inn, High Street, Tunstall, for Messrs. Parker's Burslem Brewery, Ltd.; five shops, London Road, for Messrs. S. Peake and Son.

*

The NORTHFLEET U.D.C. is seeking sanction to borrow £20,000 for the completion of the Northfleet housing scheme.

*

Messrs. T. and G. Spragg have obtained land in Craigwyd Road, SWANSEA, for the erection of twenty houses.

*

Plans passed by the SWANSEA Corporation: Store, Bonymaen Road, for Mr. David Hopkins; flats and shops, Glanmor Terrace, for Messrs. Bennett Bros.; alterations and additions, 28 Castle Street, for Messrs. C. F. Lovell & Co., Ltd.; dressing-rooms, Clydach Road, for Messrs. John Player and Sons, Ltd.; sheds, Neath Road, Hafod, for British Petroleum Co., Ltd.

*

The CLACTON U.D.C. is to invite tenders for the erection of a new town hall.

*

The WEST HAM Corporation is to invite tenders for the erection of 196 flats on the Manor Road site, Canning Town.

*

The NOTTINGHAM Board of Guardians is to extend the nurses' home at the infirmary in Hucknall Road.

*

The Essex Education Committee is compulsorily acquiring land at GRAYS for the erection of an elementary school.

*

The Essex Education Committee has purchased a site at CORRINGHAM for the enlargement of the elementary school.

*

The Essex Education Committee is acquiring a site at WOODHAM for the erection of a junior school.

*

The WANDSWORTH B.C. has raised a loan of £70,000 for housing schemes.

The Essex Education Committee is acquiring a site at SILVER END for the erection of an elementary school.

*

The Silver End Development Co., Ltd., is developing a garden village at Silver End, ESSEX, and it is estimated that 300 houses will be erected by the end of 1928.

*

The Essex Education Committee is to erect a junior mixed school for 250 children at BRAINTREE.

*

The managers of the St. Joseph's Roman Catholic School, Howard Road, BARKING, are to enlarge the school for the accommodation of an additional 100 scholars.

*

The Essex Education Committee has acquired a site in Lymington Road, DAGENHAM, for the erection of the ninth elementary school on the L.C.C. estate.

*

The first section of a new dyeworks is now in course of erection at LEEKBROOK, near Leek, for Messrs. Joshua Wardle, Ltd. The estimate of Messrs. J. Gerrard and Sons, Ltd., Swinton, Manchester, has been accepted, and amounts to approximately £162,000. The associated architects are Messrs. E. Howard and Partners, of London, and Messrs. Longden and Venables, F and L.R.I.B.A., of Leek.

*

Plans passed by the EASTBOURNE Corporation: Alterations, Seaside, for Mr. B. Stevens, architect; three houses, The Crescent, for Mr. P. D. Stoneham, architect; two houses, Ringwood Road, for Mr. C. Ford, architect; two houses, Milton Crescent, for Mr. S. Box, architect; two houses, Chamberlain Road, for Mr. C. H. Mayo; alterations, Crown Hotel, Crown Street, for Messrs. Page and Overton; two houses, Woodgate Road, for Mr. W. R. Hamblyn, architect; extensions, 89-102 South Street, for Messrs. A. Wright and Sons; six houses, Percival Road, for Messrs. G. and P. Attfield.

*

The MORECAMBE Corporation is asking Messrs. John Taylor and Sons to prepare a scheme of sewage and sewage disposal.

*

The borough engineer of MORECAMBE has prepared a scheme for the Happy Mount extension, the cost totalling £21,000. It includes the erection of a café at a cost of £5,000, six tennis courts, two bowling-greens, eighteen-hole putting-greens, two clock-golf greens, tea-gardens, pergola, and children's playgrounds.

*

Plans passed by the DUDLEY Corporation: Extensions, Scrim Manufacturing Works, Dibdale Street, for Mr. A. Smith.

The MORECAMBE Corporation is arranging terms with the company for the acquisition of the West End Pier in connection with the widening of the promenade.

The MORECAMBE Corporation has decided to proceed with the construction of a bathing pool and Turkish, Russian, and other medicated baths, the work to be undertaken in sections.

The EASTBOURNE Corporation has asked the borough engineer to prepare plans for the provision of Turkish baths at Devonshire Park.

The EASTBOURNE Corporation Housing Committee has approved the lay-out of land at Victoria Drive for the erection of 100 houses.

The NORTHAMPTON Corporation Housing Committee has approved the lay-out of the St. David's estate, provision being made for the erection of 460 houses.

Plans passed by the CHELTENHAM Corporation: Pavilion, Grammar School fields, Brooklyn Road, for governors; alterations, Crescent Terrace, for Cheltenham Newspaper Co., Ltd.; extensions, General Hospital, for governors; eight houses, Keynsham Road, for Messrs. Bendall and Sons; dairy, Leckhampton Road, for Mr. M. Pearson.

The MANCHESTER Corporation is seeking sanction to borrow £330,000 for further housing advances.

The CROYDON Education Committee has obtained sanction to borrow £14,500 for the erection of an elementary school at Woodside.

The CROYDON Corporation has obtained sanction for a loan of £31,000 for the purchase of a housing site in Mitcham Road.

The London Telephone Service have notified the CROYDON Corporation of a proposal to provide two additional exchanges in Croydon, one to be designated Fairfield and the other Pollards.

The CROYDON Corporation is to acquire compulsory powers for the acquisition of land for widening Purley Way to complete the construction of one section of the relief road.

The borough engineer of CROYDON has prepared a revised estimate of £12,650 for the reconstruction of the St. James's Road bridge.

The BEXHILL Corporation has had under consideration the construction of a new road to Sidley via London Road, and instructed the town clerk to open negotiations with land owners.

The CROYDON Corporation is considering a revised lay-out of the Shirley Cottage estate.

The CROYDON Corporation has received sanction to borrow £18,250 for the erection of a nurses' home at the asylum.

The RIPON Corporation has asked the Highways Committee to report upon a proposal for the construction of a road to High Cleugh.

The RIPON Corporation is considering a proposal for the construction of a swimming bath at the Spa.

Plans passed by the DOVER Corporation: New story, Messrs. Woodlands' factory premises, Bridge Street, for Mr. H. R. Neech; addition, Buckland Paper Mills, for Messrs. Wiggins, Teape & Co., Ltd.; extensions, Crescent House, for Dover College Council; alterations, 45-47 Biggin Street, for Messrs. George Hatton, Ltd.

The WARRINGTON Education Committee has scheduled a site on the Bewsey estate for the erection of a school.

Plans passed by the WARRINGTON Corporation: New halls, Buttermarket Street, for Salvation Army; shops, Buttermarket Street, for Messrs. Greenall, Whitley & Co., Ltd.; additions, moulding shops, Dallam Lane, for Whyman's Foundry, Ltd.

The WARRINGTON Corporation is seeking powers to borrow £50,000 for further housing advances.

The WARRINGTON Corporation has obtained sanction for a loan of £19,000 for laying a trunk water main from the Liverpool aqueducts at Norton to Stockton Heath.

The WARRINGTON Education Committee has purchased a site near Alder Lane for the erection of an elementary school.

The LEICESTER Corporation has decided to grant subsidy in connection with 240 houses to be erected by the Sutton Trustees in Gipsy Lane and elsewhere.

Messrs. Hoare & Co., Ltd., are to rebuild the "Blacksmiths' Arms," South End, CROYDON.

The LEICESTER Corporation is acquiring property in Hastings Terrace and Rutland Street for a scheme for extensions at the wholesale markets.

Plans passed by the AUDENSHAW U.D.C.: Seven houses, off Stamford Road, for Messrs. Z. Pike and Sons; warehouse, Manchester Road, for Mr. F. Lloyd; shop and two houses, Manchester Road, for Mr. G. Blackwell.

The LEICESTER Education Committee has approved plans prepared for the erection, at Western Park, of an open-air school at an estimated cost of £10,650.

The LEICESTER Corporation is to widen two railway bridges at Narborough Road and Fosse Road at a cost of £26,500.

The CROYDON Education Committee has prepared a scheme for the construction of an elementary school for 832 scholars on the site of the old North Park School, Princess Road.

The surveyor of LLANDUDNO has been asked to prepare plans for the extension of the promenade sea wall between Lloyd Street and Dale Street.

The Rev. D. F. Campbell is to erect a parish hall in connection with the Preston Parish Church, BRIGHTON.

The CROYDON Corporation Baths Committee has asked the borough engineer to prepare plans for the erection of a new swimming bath at Thornton Heath.

The borough engineer of CROYDON has prepared a scheme for the provision of new intercepting sewers and the extension and enlargement of existing sewers at a total cost of £68,000.

The borough engineer of CROYDON has prepared plans for the extension of the central library at an estimated cost of £18,000.

The CROYDON Corporation is seeking sanction for a loan of £50,000 for further housing advances.

Plans passed by the LEWISHAM B.C.: School, Brockley Rise, for Messrs. W. H. Gaze and Sons, Ltd.; ninety-nine houses, Downham estate, for Mr. J. G. Stephenson, for L.C.C.

Plans passed by the LOWESTOFT Corporation: Alterations, St. Luke's Hospital, for Metropolitan Asylums Board; additions, 18 London Road, for Messrs. Turtle and Sons; store, Oulton Road, for Mr. J. Robinson; two houses, Laurel Road, for Mr. T. H. Lambert; five houses, Rotterdam Road, for Messrs. Warnes and Son; two houses, London Road South, for Mr. R. Sewell.

The HOVE Corporation has sold a site on the Knoll housing estate to the Chichester Diocesan Fund Incorporated for the erection of a church and vicarage.

The Worcestershire Education Committee is to obtain land at PENDOCK for the provision of a practical subjects centre.

RATES OF WAGES

			I	II				I	II				I	II
			s. d.	s. d.				s. d.	s. d.				s. d.	s. d.
A ABERDARE	S. Wales & M.	1 8	1 3		A E. Glamor-	S. Wales & M.	1 8	1 3		A NANTWICH	N.W. Counties	1 6	1 2	
A Abergavenny	S. Wales & M.	1 7	1 2		A Ganshire &					A Neath	S. Wales & M.	1 8	1 3	
A Abingdon	S. Counties	1 6	1 1		A Monmouthshire					A Nelson	N.W. Counties	1 8	1 3	
A Accrington	N.W. Counties	1 8	1 3		B Exeter	S.W. Counties	1 7	1 2		A Newcastle	N.E. Coast	1 8	1 3	
A Addlestone	S. Counties	1 6	1 2		B Exmouth	S.W. Counties	1 5	1 1		A Newport	S. Wales & M.	1 8	1 3	
A Adlington	N.W. Counties	1 8	1 3		B FELIXSTOWE	E. Counties	1 6	1 1		A Normanton	Yorkshire	1 8	1 3	
A Aldrie	Scotland	1 8	1 3		A Flley	Yorks	1 6	1 2		A Northampton	Mid. Counties	1 7	1 2	
C Aldburgh	E. Counties	1 4	1 0		A Fleetwood	N.W. Counties	1 8	1 3		A North Staffs.	Mid. Counties	1 8	1 3	
A Altrincham	N.W. Counties	1 8	1 3		B Folkstone	S. Counties	1 5	1 1		A North Shields	N.E. Coast	1 8	1 3	
B Appleby	N.W. Counties	1 4	1 0		A Frodsham	N.W. Counties	1 8	1 3		A Norwich	E. Counties	1 6	1 2	
A Ashton-under-Lyne	N.W. Counties	1 8	1 3		B Frome	S.W. Counties	1 4	1 0		A Nottingham	Mid. Counties	1 8	1 3	
A Atherstone	Mid. Counties	1 6	1 2		A GATESHEAD	N.E. Coast	1 8	1 3		A Nuneaton	Mid. Counties	1 8	1 3	
B Aylesbury	S. Counties	1 4	1 0		B Gillingham	S. Counties	1 5	1 1		B OAKHAM	Mid. Counties	1 5	1 1	
B BANBURY	S. Counties	1 4	1 0		A Gloucester	S.W. Counties	1 6	1 2		A Oldham	N.W. Counties	1 8	1 3	
B Bangor	N.W. Counties	1 5	1 1		A Goole	Yorkshire	1 7	1 2		A Oswestry	Mid. Counties	1 6	1 2	
A Barnard Castle	N.E. Coast	1 8	1 3		B Gosport	S. Counties	1 6	1 1		B Oxford	S. Counties	1 6	1 1	
A Barnsley	Yorkshire	1 8	1 3		A Grantham	Mid. Counties	1 6	1 2		A PAISLEY	Scotland	1 8	1 3	
B Barnstaple	S.W. Counties	1 5	1 1		A Gravesend	S. Counties	1 7	1 2		C Pembroke	S. Wales & M.	1 4	1 0	
A Barrow	N.W. Counties	1 8	1 3		A Greenock	Scotland	1 8	1 3		A Perth	Scotland	1 8	1 3	
A Barry	S. Wales & M.	1 8	1 3		A Grimsby	Yorkshire	1 8	1 3		A Peterborough	Mid. Counties	1 6	1 2	
B Basinstoke	S.W. Counties	1 4	1 0		B Guildford	S. Counties	1 5	1 1		A Plymouth	N.W. Counties	1 8	1 3	
B Bath	S.W. Counties	1 6	1 2		A HALFAX	Yorkshire	1 8	1 3		A Pontefract	Yorkshire	1 8	1 3	
A Batley	Yorkshire	1 8	1 3		A Hanley	Mid. Counties	1 8	1 3		B Pontypridd	S. Wales & M.	1 8	1 3	
B Bedford	E. Counties	1 6	1 2		A Harrogate	Yorkshire	1 8	1 3		B Portsmouth	S. Counties	1 6	1 2	
A Berwick-on-Tweed	N.E. Coast	1 7	1 2		A Hartlepool	N.E. Coast	1 8	1 3		A Preston	N.W. Counties	1 8	1 3	
A Bewdley	Mid. Counties	1 7	1 2		B Hastings	E. Counties	1 5	1 1		A QUEENS-FERRY	N.W. Counties	1 8	1 3	
B Bicester	Mid. Counties	1 4	1 0		B Hatfield	S. Counties	1 4	1 0		B READING	S. Counties	1 6	1 2	
A Birkenhead	N.W. Counties	1 10	1 4		B Hereford	S. Counties	1 5	1 1		B Reigate	S. Counties	1 5	1 1	
A Birmingham	Mid. Counties	1 8	1 3		B Hertford	E. Counties	1 5	1 1		A Retford	Mid. Counties	1 6	1 2	
A Bishop Auckland	N.E. Coast	1 8	1 3		A Heysham	N.W. Counties	1 7	1 2		A Rhondda Valley	S. Wales & M.	1 8	1 3	
A Blackburn	N.W. Counties	1 8	1 3		A Howden	N.E. Coast	1 8	1 3		A Ripon	Yorkshire	1 6	1 2	
A Blackpool	N.W. Counties	1 8	1 3		A Huddersfield	Yorkshire	1 8	1 3		A Rochdale	N.W. Counties	1 8	1 3	
A Blyth	N.E. Coast	1 8	1 3		A Hull	Yorkshire	1 8	1 3		B Rochester	S. Counties	1 4	1 0	
B Bognor	N.W. Counties	1 4	1 0		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.									
A Bolton	N.W. Counties	1 8	1 3											
A Boston	Mid. Counties	1 6	1 2											
B Bournemouth	S. Counties	1 6	1 1											
B Bovey Tracey	S.W. Counties	1 5	1 1											
A Bradford	Yorkshire	1 8	1 3											
A Brentwood	E. Counties	1 7	1 2											
A Bridgend	S. Wales & M.	1 8	1 3											
B Bridgwater	S.W. Counties	1 5	1 1											
A Bridlington	Yorkshire	1 7	1 2											
A Brighouse	Yorkshire	1 8	1 3											
B Brighton	S. Counties	1 6	1 1											
A Bristol	S.W. Counties	1 8	1 3											
B Brixham	S.W. Counties	1 4	1 0											
A Bromsgrove	Mid. Counties	1 7	1 2											
O Bromyard	Mid. Counties	1 4	1 0											
A Burnley	N.W. Counties	1 8	1 3											
A Burnesley	Mid. Counties	1 8	1 3											
A Burton-on-Trent	Mid. Counties	1 7	1 2											
A Bury	N.W. Counties	1 8	1 3		A ILKLEY	Yorkshire	1 8	1 3		A ST. ALBANS	E. Counties	1 6	1 2	
A Buxton	N.W. Counties	1 7	1 2		A Immingham	Mid. Counties	1 8	1 3		A St. Helens	N.W. Counties	1 8	1 3	
B CAMBRIDGE	E. Counties	1 6	1 1		R Ipswich	E. Counties	1 6	1 2		A Salisbury	S.W. Counties	1 4	1 0	
B Canterbury	S. Counties	1 4	1 0		C Isle of Wight	S. Counties	1 4	1 0		A Scarborough	Yorkshire	1 7	1 2	
A Cardiff	S. Wales & M.	1 8	1 3		A JARROW	N.E. Coast	1 8	1 3		A Scunthorpe	Mid. Counties	1 8	1 3	
A Carlisle	N.W. Counties	1 8	1 3		A KEIGHLEY	Yorkshire	1 8	1 3		A Sheffield	Yorkshire	1 8	1 3	
B Carmarthen	S. Wales & M.	1 6	1 1		B Kendal	N.W. Counties	1 5	1 1		A Shipley	Yorkshire	1 8	1 3	
B Carnarvon	N.W. Counties	1 5	1 1		B Keewick	N.W. Counties	1 5	1 1		A Shrewsbury	Mid. Counties	1 6	1 2	
A Carnforth	N.W. Counties	1 7	1 2		B Kettering	Mid. Counties	1 6	1 2		A Skipton	Yorkshire	1 7	1 2	
A Castleford	Yorkshire	1 8	1 3		A Kidderminster	Mid. Counties	1 7	1 2		B Slough	S. Counties	1 5	1 1	
B Chatham	S. Counties	1 5	1 1		B King's Lynn	E. Counties	1 5	1 1		A Solihull	Mid. Counties	1 8	1 3	
B Chelmsford	E. Counties	1 5	1 1		A LANCASTER	N.W. Counties	1 8	1 3		A South'pton	S. Counties	1 6	1 2	
A Cheltenham	S.W. Counties	1 6	1 2		A Leamington	Mid. Counties	1 7	1 2		B Southend-on-Sea	E. Counties	1 5	1 1	
A Chester	N.W. Counties	1 8	1 3		A Leeds	Yorkshire	1 8	1 3		A Southport	N.W. Counties	1 8	1 3	
A Chesterfield	Mid. Counties	1 8	1 3		A Leek	Mid. Counties	1 8	1 3		A S. Shields	N.E. Coast	1 8	1 3	
B Chichester	S. Counties	1 4	1 0		A Leicester	Mid. Counties	1 8	1 3		A Stafford	Mid. Counties	1 7	1 2	
A Chorley	N.W. Counties	1 8	1 3		A Leigh	N.W. Counties	1 8	1 3		A Stockport	N.W. Counties	1 8	1 3	
A Cirencester	S. Counties	1 5	1 1		B Lewes	S. Counties	1 4	1 0		A Stockton-on-Tees	N.E. Coast	1 8	1 3	
A Clitheroe	N.W. Counties	1 8	1 3		A Lichfield	Mid. Counties	1 6	1 2		A Stoke-on-Trent	Mid. Counties	1 8	1 3	
A Clydebank	Scotland	1 8	1 3		A Lincoln	Mid. Counties	1 8	1 3		B Stroud	S.W. Counties	1 5	1 1	
A Coalville	Mid. Counties	1 8	1 3		A Liverpool	N.W. Counties	1 10	1 4		A Sunderland	N.E. Coast	1 8	1 3	
B Colchester	E. Counties	1 5	1 1		B Llandudno	N.W. Counties	1 5	1 1		A Swadlincote	Mid. Counties	1 8	1 3	
A Colne	N.W. Counties	1 8	1 3		A Llanelli	S. Wales & M.	1 8	1 3		A Swasey	S. Wales & M.	1 8	1 3	
B Colwyn Bay	N.W. Counties	1 5	1 1		A London (12-15 miles radius)		1 9	1 4		B Swindon	S.W. Counties	1 6	1 2	
A Consett	N.E. Coast	1 8	1 3		A Long Eaton	Mid. Counties	1 8	1 3		A TAMWORTH	N.W. Counties	1 7	1 2	
B Conway	N.W. Counties	1 5	1 1		A Loughborough	Mid. Counties	1 8	1 3		B Taunton	S.W. Counties	1 5	1 1	
A Coventry	Mid. Counties	1 8	1 3		B Luton	E. Counties	1 6	1 2		A Teeside Dist.	N.E. Counties	1 8	1 3	
A Crewe	N.W. Counties	1 6	1 2		A Lytham	N.W. Counties	1 8	1 3		B Teignmouth	S.W. Coast	1 6	1 2	
A Cumberland		1 6	1 2		A MACCLESFIELD	N.W. Counties	1 7	1 2		A Todmorden	Yorkshire	1 8	1 3	
A DARLINGTON	N.E. Coast	1 8	1 3		A Malden	S. Counties	1 5	1 1		A Torquay	S.W. Counties	1 7	1 2	
A Darwen	N.W. Counties	1 8	1 3		A Malvern	Mid. Counties	1 6	1 2		C Truro	S.W. Counties	1 4	1 0	
B Deal	S. Counties	1 4	1 0		A Manchester	N.W. Counties	1 8	1 3		B Tunbridge Wells	S. Counties	1 5	1 1	
B Denbigh	N.W. Counties	1 5	1 1		A Mansfield	Mid. Counties	1 8	1 3		A Tunstall	Mid. Counties	1 8	1 3	
A Derby	Mid. Counties	1 8	1 3		B Margate	S. Counties	1 4	1 0		A Tyne District	N.E. Coast	1 8	1 3	
A Dewsbury	Yorkshire	1 8	1 3		A Matlock	Mid. Counties	1 6	1 2		A WAKEFIELD	Yorkshire	1 8	1 3	
B Didcot	S. Counties	1 6	1 1		A Merthyr	S. Wales & M.	1 8	1 3		A Walsall	Mid. Counties	1 7	1 2	
A Doncaster	Yorkshire	1 8	1 3		A Middlesbrough	N.E. Coast	1 8	1 3		A Warrington	N.W. Counties	1 7	1 2	
C Dorchester	S.W. Counties	1 4	1 0		A Middlewich	N.W. Counties	1 6	1 2		A Warwick	Mid. Counties	1 7	1 2	
A Driffield	Yorks	1 6	1 2		B Minehead	S.W. Counties	1 5	1 1		B Wellington	Mid. Counties	1 6	1 2	
A Droitwich	Mid. Counties	1 6	1 2		A Monmouth	S. Wales & M.	1 8	1 3		A Westborough	Mid. Counties	1 8	1 3	
A Dudley	Mid. Counties	1 7	1 2		A Morecambe	N.W. Counties	1 7	1 2		B Bromwich	Mid. Counties	1 8	1 3	
A Dundee	Scotland	1 8	1 3							B Weston-s-Mare	S.W. Counties	1 6	1 2	
A Durham	N.E. Coast	1 8	1 3							A Whitby	Yorkshire	1 7	1 2	
B EASTBOURNE	S. Counties	1 6	1 1							A Widnes	N.W. Counties	1 8	1 3	
A Ebbw Vale	S. Wales & M.	1 8	1 3							A Wigan	N.W. Counties	1 8	1 3	
A Edinburgh	Scotland	1 8	1 3							B Winchester	S. Counties	1 6	1 2	

* In these areas the rates of wages for certain trades (usually Painters and Plasterers) vary slightly from those given. The rates for each trade in any given area will be sent on request.

PRICES CURRENT

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4d. per hour; LABOURER, 1s. 4d. per hour; NAVVY, 1s. 4d. per hour; TIMBERMAN, 1s. 6d. per hour; SCAFFOLDER, 1s. 5d. per hour; WATCHMAN, 7s. 6d. per shift.

Broken brick or stone, 2 in., per yd.	£0 11 6
Thames ballast, per yd.	0 11 0
Pit gravel, per yd.	0 18 0
Pit sand, per yd.	0 14 6
Washed sand	0 15 0
Screened ballast or gravel, add 10 per cent. per yd.	
Clinker, breeze, etc., prices according to locality.	
Portland cement, per ton	£2 19 0
Lime, per ton	2 10 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.

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.

SPREAD and level, including wheeling, per yd.

FILLING into carts and carting away to a shoot or deposit, per yd. cube.

TRIMMING earth to slopes, per yd. cube.

HACKING up old gran, or similar paving, per yd. sup.

PLANKING to excavations, per ft. sup., do. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.

If left in, add to above prices, per ft. cube.

HARDWARE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.

do. 6 in. thick, per yd. sup.

PRIDING, per yd. cube.

CEMENT CONCRETE, 4-2-1, per yd. cube.

do. 6-2-1, per yd. cube.

do. in upper floors, add 15 per cent.

do. in reinforced-concrete work, add 20 per cent.

do. in underpinning, add 60 per cent.

LIME-LIME CONCRETE, per yd. cube.

BREEZE CONCRETE, per yd. cube.

do. in lintels, etc., per ft. cube.

CEMENT concrete, 4-2-1 in lintels packed around reinforcement, per ft. cube.

FINE concrete benching to bottom of manholes, per ft. cube.

FINISHING surface of concrete spade face, per yd. sup.

do. 0 0 9

DRAINER

LABOURER, 1s. 4d. per hour; TIMBERMAN, 1s. 6d. per hour; BRICKLAYER, 1s. 9d. per hour; PLUMBER, 1s. 9d. per hour; WATCHMAN, 7s. 6d. per shift.

Stoneware pipes, tested quality, 4 in., per ft.	£0 0 10
do. 6 in., per ft.	0 1 3
do. 9 in., per ft.	0 2 3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0 5 6
do. 6 in., per yd.	0 8 6
Portland cement and sand, see "Excavator" above.	
Lead for caulking, per cut.	£2 5 6
Gaskin, per lb.	0 0 4

STONWARE 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
CART-IRON DRAINS, jointed in lead, 4 in., per ft.	0 8 0
do. 6 in., per ft.	0 10 0

Note.—These prices include digging concrete bed and filling for normal depths, and are average prices.

Fittings in Stoneware and Iron according to type. See Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 9d. per hour; LABOURER, 1s. 4d. per hour; SCAFFOLDER, 1s. 5d. per hour.

London stocks, per M.	£4 15 0
Flettons, per M.	2 18 0
Staffordshire blue, per M.	9 10 0
Firebricks, 2 1/2 in., per M.	11 3 0
Glazed salt, white, and ivory stretchers, per M.	24 10 0
do. headers, per M.	24 0 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 17 0
Mixed lime mortar, per yd.	1 6 0
Damp course, in rolls of 4 1/2 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

do. in cement do., per rod

do. in stocks, add 25 per cent. per rod.

do. in blues, add 100 per cent. per rod.

do. circular on plan, add 12 1/2 per cent. per rod.

do. in backing to masonry, add 12 1/2 per cent. per rod.

do. in raising on old walls, etc., add 12 1/2 per cent. per rod.

do. in underpinning, add 20 per cent. per rod.

HALF-BRICK walls in stocks in cement mortar (1-3), per ft. sup.

BEDDING plates in cement mortar, per ft. run

BEDDING window or door frames, per ft. run

LEAVING chases 2 1/2 in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run

CUTTING do. in old walls in cement, per ft. run

CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.

TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run

do. 14 in. by 9 in. do., per ft. run

FLAUNCHING chimney pots, each

CUTTING and pinning ends of timbers, etc., in cement

FACINGS fair, per ft. sup. extra

do. picked stocks, per ft. sup. extra

do. red rubbers gauged and set in putty, per ft. sup. extra

do. in salt white or ivory glazed, per ft. sup. extra

TUCK pointing, per ft. sup. extra

WEATHER pointing, do.

TILE creasing with cement fillet each side per ft. run

GRANOLITHIC PAVING, 1 in., per yd.

do. 1 1/2 in. per yd. sup.

do. 2 in. per yd. sup.

If coloured with red oxide, per yd. sup.

If finished with carborundum, per yd. sup.

If in small quantities in finishing to steps, etc., per ft. sup.

Jointing new gran, paving to old, per ft. run

Extra for disking gran, or cement paving around gullies, each

BITUMINOUS DAMP COURSE, ex. rolls, per ft. sup.

ASPHALT (MASTIC) DAMP COURSE, 1 in., per yd. sup.

do. vertical, per yd. sup.

SLATE DAMP COURSE, per ft. sup.

ASPHALT ROOFING (MASTIC) in two thicknesses, 7 in., per yd.

do. SKIRTING, 6 in.

BREEZE PARTITION BLOCKS, set in cement, 1 1/2 in. per yd. sup.

do. do. 3 in. per yd. sup.

BREEZE fixing bricks, extra for each

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 inquiry.

MASON

MASON, 1s. 9d. per hour; DO. fixer, 1s. 10d. per hour; LABOURER, 1s. 4d. per hour; SCAFFOLDER, 1s. 5d. per hour.

Portland Stone:	
Whitbed, per ft. cube	£0 4 6
Basebed, per ft. cube	0 4 7
Bath stone, per ft. cube	0 3 0
York paving, av. 2 1/2 in., per yd. super	0 6 6
York empiates squ. per ft. cube	0 6 9
State shales, 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.

Add to the foregoing prices, if in York stone, 35 per cent.

do. Mansfield, 12 1/2 per cent.

Deduct for Bath, 33 1/2 per cent.

do. for Chilmarsk, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.

RUBBED round nosing to do., per ft. lin.

YORK STEPS, rubbed T. & R., ft. cub. fixed

YORK SILLS, W. & T., ft. cub. fixed

ARTIFICIAL stone paving, 2 in. thick, per ft. sup.

do. 2 1/2 in. thick, per ft. sup.

SLATER AND TILER

SLATER, 1s. 9d. per hour; TILER, 1s. 9d. per hour; SCAFFOLDER, 1s. 5d. per hour; LABOURER, 1s. 4d. per hour.

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

Slates, 1st quality, per 1,200:	
Portmadoc Ladies	£14 0 0
Countess	27 0 0
Duchess	32 0 0
Old Delahoe	Med. Grey
24 in. x 12 in.	£42 11 3
20 in. x 10 in.	31 4 3
16 in. x 10 in.	20 18 0
14 in. x 8 in.	12 1 0
Green Randoms, per ton	8 3 9
Grey-green do., per ton	7 3 9
Green peggies, 12 in. to 8 in. long, per ton	6 3 9
In 4-ton truck loads, delivered Nine Elms station.	
Clips, lead, per lb.	20 0 6
Clips, copper, per lb.	0 2 0
Nails, copper, per cwt.	1 6 0
Nails, conner, 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. lap, copper 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
SLATING with old Delahoe slates to a 3 in. lap with copper nails at per square.	

24 in. x 12 in.	£5 0 0	Med. Grey	£5 2 0
20 in. x 10 in.	5 5 0		5 10 0
16 in. x 10 in.	4 15 0		5 1 0
14 in. x 8 in.	4 10 0		4 15 0

Green randoms

Grey-green do.

Green peggies, 12 in. to 8 in. long

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average

per square

do. machine-made do., per square

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

FIXING lead soakers, per dozen

STRIPPING old slates and stacking for re-use, and clearing away surplus

LABOUR only in laying slates, but including nails, per square

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

CARPENTER, 1s. 9d. per hour; JOINER, 1s. 9d. per hour; LABOURER, 1s. 4d. per hour.

Timber, average prices at Docks, London Standard

Scandinavian, etc. (equal to 2nds):

7 x 3, per std.

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1 in., per sq.

do. T. and G., 1 in., per sq.

Planed boards, 1 in. x 11 in., per std.

Wainscot oak, per ft. sup. of 1 in.

do. Cuban, per ft. sup. of 1 in.

do. African, per ft. sup.

Teak, per ft. sup. of 1 in.

do., ft. cube

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube

do. framed in floors, roofs, etc., per ft. cube

do. framed in trusses, etc., including ironwork, per ft. cube

PITCH PINE, add 33 1/2 per cent.

FIXING only boarding in floors, roofs, etc., per sq.

SARKING FELT laid, 1-ply, per yd.

do. 3-ply, per yd.

CENTRING for concrete, etc., including horsing and striking, per sq.

TURNING pieces to flat or segmenta soffits, 4 1/2 in. wide, per ft. run

do. 9 in. wide and over per ft. sup.

continued overleaf

GLAZING in beads, 21 oz., per ft.	£0 1 1
26 oz., per ft.	0 1 4
Small sizes, slightly less (under 3 ft. sup.).	
Patent glazing in rough plate, normal span, 1s. 6d. to 2s. per ft.	
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft.	
sup. and per	£0 3 6
Glazing only, polished plate, 6½d. to 8d. per ft. according to size.	

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

Genuine white lead, per cwt.	£2 7 6
Lined oil, raw, per gall.	0 3 6
Do., boiled, per gall.	0 3 8
Turpentine, per gall.	0 4 0
Liquid driers, per gall.	0 8 6
Knotting, per gall.	0 18 0
Distemper, washable, in ordinary colours, per cwt., and up	2 5 0
Double size, per firkin	0 3 6
Fumice stone, per lb.	0 0 4½
Singapore gold leaf (transferable), per book	0 2 0
Varnish, copal, per gall. and up	0 14 0
Do., flat, per gall.	1 2 0
Do., paper, per gall.	0 16 0
French polish, per gall.	0 17 6
Ready mixed paints, per gall. and up	0 15 0

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
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	2	10
DO., fine, per piece, and upwards	0	2	4
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

SUNDRIES

STUTTERING to face of concrete, per

PUTTING TO face of concrete, per square	£1 10 0
DO. in narrow walls to beams, etc., per ft. sup.	0 0 6
USE and waste of timbers, allow 25 per cent. of above prices.	
SLATE BATTENING, per sq.	£0 12 6
DEAL, boarding to flats, 1 in. thick and stringing to falls, per square	2 10 0
STOUT feather-edged tilting fillet to eaves, per ft. run	0 0 6
FEATHER-edged springer to trimmer arches, per ft. run	0 0 4
STOUT herringbone strutting (joists measured in), per ft. run	0 0 0
SOUND boarding, 1 in. thick and fillets nailed to joists, per square (joists measured over), per square	2 0 0
RUBBEROID or similar quality roofing, one-ply, per yd. sup.	0 2 3
DO., two-ply, per yd. sup.	0 2 6
DO., three-ply, per yd. sup.	0 3 0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headlines, per square	2 5 0
DEAL, skirting torus, moulded 1½ in. thick, including grounds and backings, per ft. sup.	0 1 0
TONGUED and mitred angles to do.	0 0 6
WOOD block flooring standard blocks laid herringbone in mastic:	
Deal 1 in. thick, per yd. sup.	0 10 0
Do. 1½ in. thick, per yd. sup.	0 12 0
Maple 1½ in. thick, per yd. sup.	0 15 0
DEAL moulded sashes, 1½ in. with moulded bars in small squares, per ft. sup.	0 2 6
Do. 2 in. do., per ft. sup.	0 2 9
DEAL, oak frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0 4 6
MOULDED horns, extra each	0 0 3
DOORS, 4-panel square both sides, 1½ in. thick, per ft. sup.	0 2 6
Do. moulded both sides, per ft. sup.	0 2 9
Do. 2 in. thick, square both sides, per ft. sup.	0 2 9
Do. moulded both sides, per ft. sup.	0 3 0
Do. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0 3 6
IF in oak, mahogany or teak, multiply 3 times.	
DEAL frames, 4 in. × 3 in., rebated and tongued, per ft. run	£0 15 0
ADD for extra labours, per ft. run	0 0 1
STAIRCASE work:	
DEAL treads 1½ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0 2 6
DEAL wall strings, 1½ in. thick, moulded, per ft. run	0 2 0
IF rained, per ft. run	0 5 0
SHORT ramps, extra each	0 7 6
ENDS of treads and risers housed to strings, each	0 1 0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0 1 6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0 5 6
1½ in. square deal bar balusters, framed in, per ft. run	0 0 6
FITTINGS:	
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0 1 6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0 2 9
TONGUED and grooved training boards, 1½ in. thick and bedding, per ft. sup.	0 0 4
IRONMONGERY:	
Fixing only (including providing screws):	
TO DEAL—	
Hinges to sashes, per pair	0 1 5
Do. to doors, per pair	0 1 5
Barrel bolts, 9 in., iron, each	0 1 5
Sash fasteners, each	0 1 5
Rim locks, each	0 1 5
Mortice locks, each	0 4

SMITH

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

<i>Mild Steel in British standard sections,</i> per ton	£12 10 0
<i>Sheet Steel:</i>	
Flat sheets, black, per ton	19 0 0
DO., galvd., per ton	20 0 0
Corrugated sheets, galvd., per ton	20 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	25 10
DO., in small sections as reinforcement, per ton	16 10
DO., in compounds, per ton	17 0
DO., in bar or rod reinforcement, per ton	20 0
WROUGHT-IRON in chimney bars, etc., including building in, per cwt.	2 0
DO., in light railings and balusters, per cwt.	2 5
FIXING OR CORRUGATED SHEETING, including washers and driving screws, per yd.	0 2

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

PLUMBER, 1s. 9d. per hour ; MATE OR LABOURER 1s. 4½d. per hour.		
*.		
Lead, milled sheet, per cwt.	..	£1 13 6
DO. drawn pipes, per cwt.	..	1 14 0
DO. soil pipe, per cwt.	..	1 17 0
DO. scrap, per cwt.	..	1 5 6
Copper, sheet, per lb.	..	0 1 9
Solder, plumber's, per lb.	..	0 1 3
DO. fine, per lb.	..	0 1 1
Cast-iron pipes, etc. :		
L.C.C. soil, 3 in., per yd.	..	0 4 0
DO. 4 in. per yd.	..	0 4 9½
R.W.P., 2½ in., per yd.	..	0 2 2
DO. 3 in., per yd.	..	0 2 2
DO. 4 in., per yd.	..	0 3 6½
Gutter, 4 in. H.R., per yd.	..	0 1 6½
DO. 4 in. O.G., per yd.	..	0 1 10½
*.		
MILLED LEAD and labour in gutters, flashings, etc.		3 2 6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.		0 2 0
DO. ½ in., per ft.	..	0 2 3
DO. 1 in., per ft.	..	0 3 0
DO. 1½ in., per ft.	..	0 4 0
LEAD WARE, of 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
WIRED soldered joint, ½ in., each		0 2 6
DO. 1 in., each	..	0 3 2
DO. 1½ in., each	..	0 3 8
BRASS screw-down stop cock and two soldered joints, ½ in., each		0 11 0
DO. ½ in., each	..	0 13 6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run.		0 1 7
DO. 3 in., per ft. run	..	0 2 0
DO. 4 in., per ft. run	..	0 2 10
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.		0 2 0
DO. O.G., 4 in., per ft.	..	0 2 3
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.		0 4 6
DO. 3 in., per ft.	..	0 3 6
Fixing only :		
W.C. PANS and all joints, p. or s., and including joints to water waste connections, each		2 5 0
BATHS, with all joints	..	1 3 6
LAVATORY BASINS only, with all joints, on brackets, each		1 10

PLASTERER

PLASTERER, 1s. 9½d. per hour (plus allowances in London only); LABOURER, 1s. 4½d. per hour.

Chalk line, per ton	*	\$2 17 0
Hair, per cut.	.	1 15 0
Sand and cement see "Excavator," etc., above.	.	
Lime putty, per cut.	.	2 9
Hair mortar, per yd.	.	1 7 0
Fine stuff, per yd.	.	1 14 0
Sawn laths, per bd.	.	0 2 9
Kene's cement, per ton	.	5 15 0
Strapile, per ton	.	3 10 0
Do. fine, per ton	.	3 15 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 and Sand, 1 to 3, for tilling or woodblock. $\frac{1}{2}$ 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 lath- ing, and of foregoing, per yd. . .	0	0	5
EXTRA, if on ceiling, per yd. . .	0	0	5
ANGLES, rounded Keene's on Port- land, per ft. lin. . .	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing, out, etc., per ft. lin. . .	0	0	3
WHITE glazed tilling set in Portland and jointed in Parian, per yd., from . . .	1	11	6
FIBROUS PLASTER SLABS, per yd. . .	0	1	10

GLAZIER

GLAZIER, 1s. 8½d. *per hour.*

Glass : 4th in crates : *			
Clear, 21 oz.	.	.	#0 0 4
DO. 26 oz.	.	.	0 0 5
Cathedral white, per ft.	.	.	0 0 7
Polished plate, British	1 in.,	up to	
2 ft. sup.	per ft.	.	0 1 6
DO. 4 ft. sup.	.	.	0 2 2
DO. 6 ft. sup.	.	.	0 3 0
DO. 20 ft. sup.	.	.	0 3 7
DO. 45 ft. sup.	.	.	0 3 3
DO. 65 ft. sup.	.	.	3 17
DO. 100 ft. sup.	.	.	0 4 4
Rough plate, 1/2 in., per ft.	.	.	0 0 0
DO. 1 in. per ft.	.	.	0 0 0
Linsed oil putty, per cub.	.	.	0 15

GLAZING (in putty, clear sheet, 21 oz.	0	0	1
DO. 26 oz.	0	1	

<i>Metal casements for wood frames, domestic sizes, per ft. sup.</i>	0	1	6
<i>DO., in metal frames, per ft. sup.</i>	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, per ft. sup.									
Thickness Qualities	$\frac{1}{8}$ in.		$\frac{1}{2}$ in.		$\frac{3}{4}$ in.		$\frac{1}{2}$ in.		
	A.A.	A.	B.A.	A.	B.A.	A.	B.A.	A.	H. d.
Birch ..	4	3	2	5	4	3	7 $\frac{1}{2}$	6	7 6
Alder ..	4	3 $\frac{1}{2}$	3	5	4	3	6 $\frac{1}{2}$	4 $\frac{1}{2}$	8 17 8
Mahogany	4	3	3	6	5 $\frac{1}{2}$	4	7 $\frac{1}{2}$	—	1 0 $\frac{1}{2}$ 10 —
Gaboon	4	3	—	—	—	—	—	—	—
Figured	4 $\frac{1}{2}$	7	—	10	8	—	—	—	1 6 — —
Plain Oak	6 $\frac{1}{2}$	6	—	7 $\frac{1}{2}$	7	—	9 $\frac{1}{2}$	—	1 0 — —
Pine	6 $\frac{1}{2}$	6	—	7 $\frac{1}{2}$	7	—	9 $\frac{1}{2}$	—	1 0 — —

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NGER
s. 1s. 4id.
per hour;

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0 0 4½

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0 17 6
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0 0 3
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0 3 8
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