

THE ARCHITECTS' JOURNAL & *Architectural Engineer*

With which is incorporated "The Builders' Journal."



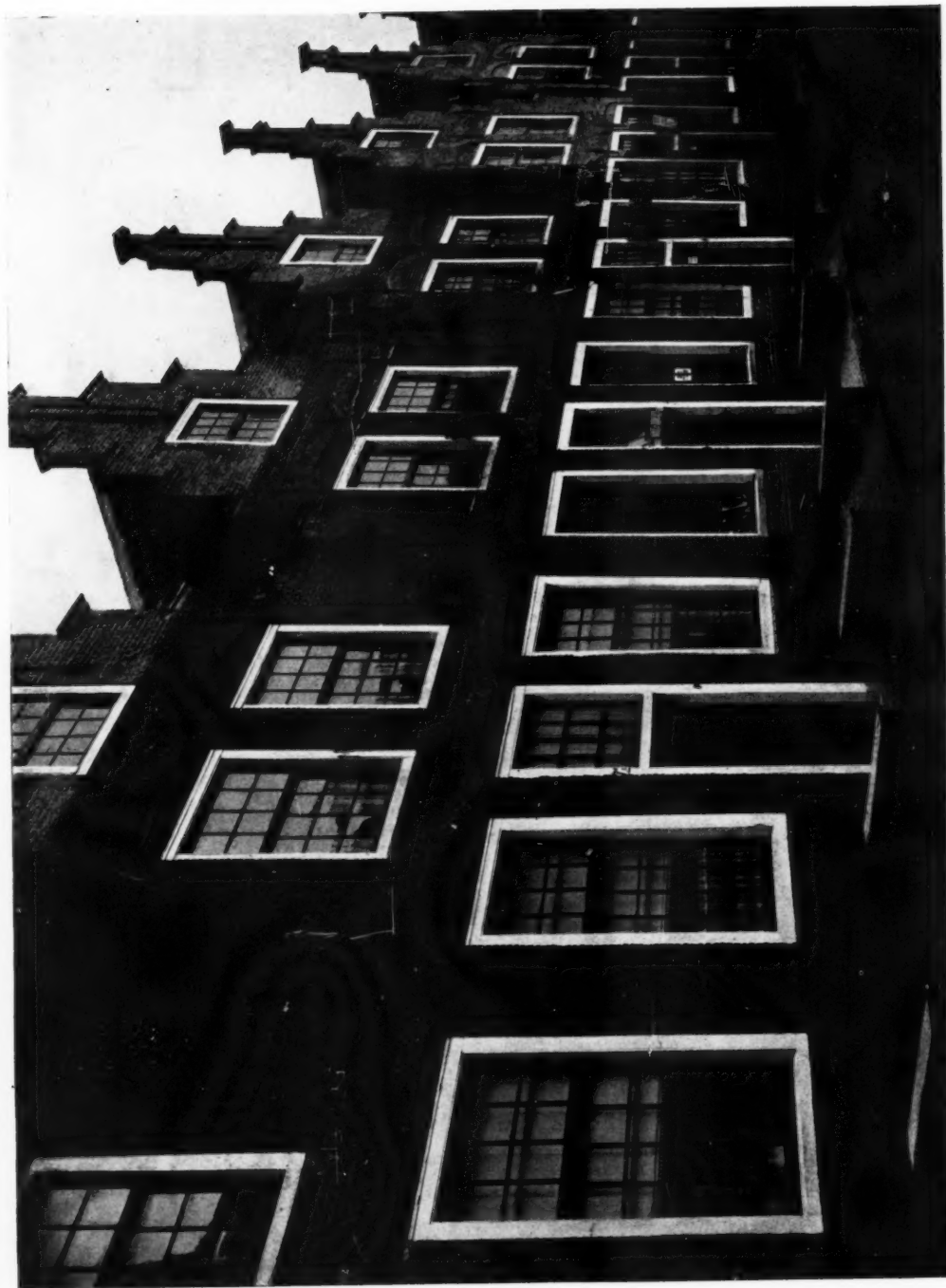
FROM AN ARCHITECT'S NOTEBOOK.

*All are ravished, and in chorus
Cry: what great a thing before us!
Is it that they know so much
Better? Is my blindness such?
Is this House then truly great—
Altogether what I willed it?
And that rush of passionate
Vision, has the making stilled it?
Is my handiwork then true
To the Pattern that I knew,
That so fired my mind, so filled it?*

IBSEN: "Brand."

27-29 Tothill Street, Westminster, S.W.1.

Old Houses at Haarlem, Holland



These houses are Frans Hals Street, forming the Frans Hals Museum. They are built in red brick, and are exceptionally well preserved.

THE ARCHITECTS' JOURNAL

27-29 Tothill Street, Westminster, S.W.1.

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On Diaries

PERHAPS it is a natural modesty that makes it a little difficult for us to believe that our casual impressions of persons and events can ever possess any real interest for posterity. Yet there is no more delectable medium through which to obtain a real insight into the lives, the thoughts, the habits of past generations than that afforded by the pages of a diary. Especially is this so if the diary be one that has been written day by day and not in retrospect, and with no thought for publication; conformity to these conditions it is which makes Pepys's diary of greater value than Evelyn's.

What are the chief essentials if a diary is to be of universal interest? First, the occupation and pursuits of the diarist should be such that he is brought freely into contact with all grades and classes. If this be not so, no matter how eminent may be his position, the record is limited, and to some extent distorted. Next, the diarist must have a very keen observation, and he must also be a man of discrimination and of balance, with a capacity to co-relate events and to see them, as far as is possible, with the distorted view which only the distance of time corrects, with a sense of relative importance. Then he must have wide sympathies and a power of assessing human character. He must be truthful with himself. He must be without that subjective preoccupation which, a legacy of Russian literature, is so distressingly popular to-day. His must be the outward and objective vision, but he must not accept things at their face value. Finally, he must have a zest for life, moving, in his work and in his recreation, ever abreast with his times.

And the matter which affords us the greatest interest—the keenest relish—is surely personal accounts, impressions, or anecdotes of notable men and women, with whose names we are familiar; descriptions of the conditions under which the people live; little details as to methods of travel; as to expenditure and habits; reactions to the political situations of the day; to the scandal and to current opinions; accounts of private gatherings and public functions.

It was during the nineteenth century that most of the famous diaries were published. Evelyn's in 1818, Pepys's in 1825, Fanny Burney's in 1842, Charles Greville's in 1887, the journal of Jules and Edmond de Goncourt in 1888. The twentieth century saw the publication of Creevey's indiscretions in 1903; and then, after an interval of nearly twenty years, the diary of Joseph Farington, a document fit to be placed at once alongside those of Pepys and Evelyn. Most of these diarists were neither too high nor too low in the social scale to be excluded from contact with their fellows, neither were their occupations too circumscribed, for, as politicians, civil servants, members of the Royal Society, of the Royal Academy, or as litterateurs, their contacts and interests were of necessity wide.

Would it not seem that dispassionate consideration

might well lead to the conclusion that none was more fitted to produce a diary which would both entertain and instruct posterity than the architect? His work reaches out through all the ramifications of our organizations. His entries to-day about the work on which he was engaged would reflect the contemporary tastes of the people, and the way in which they lived, and the current ideas about furnishing and equipment. There would be something about the present labour-saving agitation, and doubtless the feminine call for ever more cupboards would afford some little mirth to posterity. The methods of construction would be of no little interest, for these things are subject to swift changes. Details of the office routine, too, which to us may seem mundane and dull, in a hundred years or so would be read with zest. Then those complex movements, which are implied by the terms "Housing" and "Town Planning," are, we realize even now, matters of more than passing interest, and they are implicated with the politics of the day, so that they would naturally link up with, at least, the fringe of parliamentary gossip. The architect's diary—for we must remember it would not be written with the conscious intention of publication—would contain entries about the various clients, and if these happen to be persons whose names are destined to become great, the value of the document is at once increased. Nowadays there is developing a new type of client, and the individual patron is being supplanted by the municipality or by the board of directors, thus the scope is again extended, for something would be learned of the way in which public business is conducted.

An architect is inevitably a traveller, both in connection with his work and his pleasure. Here, at once, is a whole field of interesting matter. For there would be entries of comparatively small local journeys, both by road and rail, with, probably, details of their cost, and there would be accounts of continental holidays with impressions of old and modern buildings, and of meetings with foreign architects. Few architects in the course of a long practice completely avoid entanglement with the law; a party-wall dispute, a squabble over ancient lights, a defaulting contractor, and expert evidence is wanted even if interests are not more directly involved. Here, then, contact is made with a different world, and posterity might be regaled with some story about a rising counsel later destined, maybe, for the woollack.

Then it must not be forgotten that the architect is in touch with all the art movements of the day. Posterity would learn the contemporary opinion of various artists. If the diarist should happen to be, as well he might, a member of the Royal Academy, his net is at once widened. The interest of Farington's diary is chiefly on account of his association with the Academy; but in the architect's diary this connection would be but one of innumerable facets adding lustre to the whole, and many secrets that

we shall never know would be divulged for the delectation of our offspring.

If the diarist be one who takes his share in the affairs of his city there will be entries about the various committees on which he served, their functions, their trials, and their problems. Questions of wages, of hours of labour, of unemployment, will afford subject matter. So, too, in rich contrast, there will be public dinners, at the Academy, at the R.I.B.A., trade dinners, and city dinners. Farington is so meticulous as to give plans of the tables of these functions, showing the seating arrangement. It is perhaps difficult to grasp that such information can be of interest. Yet it assuredly can be. There will be, too, accounts, rich in suggestive episode, of ceremonies of laying foundation stones, of opening important buildings, and the like. In fact the potential interest of the architect's diary is infinite.

Who knows but that some such record is in actual process of being made, and that some office diary contains more, much more, than the mere record of engagements and interviews that figure in every architect's office, and who knows, too, but that the columns of this very JOURNAL are destined, in some hundred years, to review the first great architect's diary? Stranger things have happened.

St. Olave's, Southwark

It is reported, we note, that St. Olave's, Tooley Street, Southwark (not to be confused with St. Olave's, Hart Street, the pre-Fire City church which contains the bones of Samuel Pepys), is to be demolished. The existing building is not the original church referred to by Stow as a "fair and meet large church . . . in which there lieth entombed Sir John Burcettur, knight, 1466." Nor, indeed, is it the later church, designed in 1737-39 by Henry Flitcroft (who also designed St. Giles-in-the-Fields), for his St. Olave's suffered so much from fire in 1843 that it had to be entirely rebuilt, Flitcroft's design, however, being repeated. The existing building, therefore, is of little interest beyond its perpetuation of an historical name and the form of an earlier design. It is interesting to recall that Flitcroft, when called upon to rebuild St. Olave's, made use of his original design for St. Giles, which, for some reason or other, had been turned down by the committee. Flitcroft had a nice sense of economy in effort, and no doubt he regarded the transfer of his rejected design to Southwark as a distinct score over the St. Giles committee. The building is by no means a masterpiece; it is sober to the point of dullness. Flitcroft's design for the spire was never carried out, the tower, which looks obviously incomplete, being surmounted by a small octagonal turret from which rises a flagstaff. For all this, Londoners will be sorry to see it go; it is a familiar landmark, and can ill be spared from a neighbourhood that is already sadly lacking in architectural interest.

Open-air Advertisements

The pessimists who never tire of telling us that there is no longer any corporate sense of respect for the public amenities must have been agreeably surprised to read that, as a New Year resolution, the leading motor-spirit companies and other concerns associated with the motor industry, have decided to abolish their field signs that so long have been allowed to disfigure the beauty of the countryside. This repentance is a late one, but it is extremely welcome; there can be no doubt that it is very largely due to the persistent propaganda of the S.C.A.P.A. Society, which beneficent body must be stimulated to renewed and redoubled effort by the success achieved. For it is not only the countryside that is disfigured; our towns and cities are even more patently suffering from the blight of the unsightly advertisement. Hoardings "sky signs," and all other forms of open-air publicity "enterprise" should be scrutinized, and the perpetrators requested to ask themselves whether they are not doing violence to the amenities. It is essentially a case for educational effort. It is infinitely preferable that restitution should be made volun-

tarily than by compulsion—and signs are not wanting that compulsion is likely to be brought to bear upon offenders in the not far distant future if they do not make some attempt at reform on their own initiative. Simultaneously with the "field signs" announcement came the news that the L.M. and S. Railway had commissioned a number of eminent artists to design their advertisement posters. This is certainly a move in the right direction. It is perfectly well realized, even by those who are most violently opposed to unsightly advertisements, that advertising in some form or another is an indispensable adjunct to modern civilization. If public advertisements can be made beautiful to look upon—and this the Underground Railways have convincingly proved—there is no valid objection to them.

Why "Art" Commissions?

Dr. Charles Beard, the American expert on municipal government and administration, who has just returned to the United States after a visit to Tokyo, has prepared a report on the rebuilding of that city, in the course of which he urges the appointment of a permanent art commission for the capital, instancing the success that such commissions have had in America in improving public taste. "To allay the fears of hard-minded practical business men," he says, "I may add that beauty and distinction in Tokyo will 'pay.'" Of course. How long must it be, then, before this country of hard-headed business men takes Dr. Beard's excellent advice to heart? Probably as long as we continue to talk about "art" commissions. The average Englishman prides himself not upon his knowledge of art, but upon his practicability. Both terms really mean the same thing, but he doesn't know it. Talk to him of "practical improvements" and he is with you heart and soul. So let us hear no more of "art" commissions. If we are to win over the man in the street and help him to a knowledge of good architecture we must talk of "public improvement commissions." There may occasionally be a good deal "in a name."

Victoria Station

The decision of the Southern Railway to remodel Victoria Station and make it, in the official phrase, "one of the finest in London," may mean much or little. If nothing more is contemplated than the removal of the dividing wall between the two stations, the improvement will be almost negligible. (Why these two stations did not have the sense to become one when both were rebuilt a few years ago is a mystery.) If Victoria is to become the terminus that it ought to be it will have to undergo very extensive replanning. The exits are without question the worst in London. The pedestrian who wishes to get to Victoria Street across the forecourt has to pass through an appalling chaos of incoming, outgoing, and stationary omnibuses and taxicabs, and it is no exaggeration to say that he takes his life in his hands every time he essays the attempt. We hope that the Southern Railway contemplate a really comprehensive remodelling of station, entrances, and exits, in relation to the traffic problem of the locality. Mere tinkering about with the existing buildings is worse than useless.

"Chartered Civil Engineers"

A sequel to recent alarms and excursions in the engineering profession is the announcement that a third supplemental Royal Charter has now been granted to the Institution of Civil Engineers, giving members and associate members the exclusive right to describe themselves as "Chartered Civil Engineers." Whether there can possibly be any other outcome of a controversy on the point of professional status as between qualified and unqualified practitioners of a given profession is a question that is not necessarily closed to discussion. The experience of the Institution of Civil Engineers is not without interest for the R.I.B.A., whose own domestic problems may be expected to stimulate renewed controversy in the near future.

A MONTHLY CAUSERIE

Joking Apart

Highbrows and Lowbrows

IT has become the duty of every architect, as of every member of the professions and of every votary of an art or practitioner in science, not merely to admit—for admission implies reluctant acquiescence—but to openly proclaim himself a “highbrow.” The word, like many words, ideas, and conventions which we could do without, is an importation from America for whose poisonous fruits we seem to have a fatal appetite: the offals of yesterday’s feast in U.S.A. too often furnish forth to-day’s banquet here. “Highbrow” seems to have originated as an apt, witty, humorous rebuke of pedants and superior persons; but pedants and superior persons hang so much together in coteries of mutual admiration that the word, so restricted, would scarcely have found its way into the vernacular. Into the vernacular it was, however, received, where it became a contemptuous epithet used by the ignorant in jealousy to discredit intellectual attainments and cheapen the reputation of educated achievement. The position in America to-day is that anyone who speaks English as English in America is taught and spoken by educated persons, and written in all books and periodicals that have any sort of consequence, is liable to be included in the opprobrious classification; while the man who says “Was you located in Chicago last fall?” shrieks “highbrow” at the man who prefers to say: “Were you living in Chicago . . . ?” In England, now, the millions who daily attend on the opening of a steam valve to perform, in endless repetition, one mechanical act at the pace set by the machine to which they are enslaved, and those other millions who are engaged in forcing upon the public the rubbishy unnecessary things the machines make, alike cry “highbrow” at the man who invents the machines and at he who designs the palace of salesman’s architecture with which it is their boast to be associated. A growing popular prejudice would disparage the memories of such names as Johnson, Faraday, Pasteur, Huxley, Browning, just as it discredits those living men who abide in the great tradition; but it is scarcely necessary to say that the British public would not lend itself to any such stupid perversion were it not misled, and—as usual, when we are confronted with brainless habits of mind, vulgarity of ideas, social corruption or degeneracy of the communal instinct—we find the explanation in the self-serving machinations of our old friend, the commercial man. It is he, in pursuance of his remorseless policy of filling his own pockets, who is systematically teaching the ignorant public to hold in scorn those to whom it owes such advantages as civilization has already bestowed, and to shout “highbrow” at the class to which it must turn in hope of the future.

Before I proceed to justify this accusation I will call attention to two circumstances which show up the true complexion of the anti-highbrow prejudice, or, as I shall name it, “lowbrow” advocacy, for (although his brow is apparently not high enough for him to perceive it) a man raising the jeer “highbrow” is boasting the ownership of no brow at all or, at best, a low one, and he will have no grievance if we concede his claim, name him lowbrow, and offer him best thanks for teaching us the word. The two circumstances referred to are, first, that however eminent he may be no trader, manufacturer, shopkeeper, newspaper proprietor, or other commercial magnate ever has “highbrow” shouted at him; and, second, that those who use the gibe commonly do so, not in protest against any special point of view, but in arrogant scorn of the whole field of knowledge involved by the question at issue, and in contempt for the men with whom that knowledge lies. Of this I will give two illustrations which first occur to me, not as exceptional examples, but as instances which the reader will recognize to be typical.

A year or two ago I delivered an address which replied to the claim of a lowbrow that the future of architecture lay in its convenience as an advertisement for shops. The address was noticed in the papers and a lowbrow morning journal honoured me with its leading article which named me highbrow, and spoke of all architects and of architecture with unmeasured contempt. The writer of it made no claim to any critical appreciation of architecture, and not only flaunted ignorance and a cheerful scorn of the whole subject, but did so in boisterous assurance of the sympathy of his readers. The second instance is an anonymous letter, which was published a few weeks ago in another popular lowbrow daily, and which without any provocation screamed “highbrow” at all persons who do not enjoy the novels of Ethel M. Dell. We may well wonder in what terms of gratitude Miss Dell thanked her admirer, for he boasted not merely his ignorance of but indifference to literature, and made his letter a sort of challenge to culture and erudition by signing himself member of a calling which implies some degree of education. We have, then, to ask why any paper should specially select for publication an anonymous letter making a pointless boast of ignorance of, and indifference to, the Art of Letters; and why an editor should give first place to an editorial boast of similar ignorance of, and contempt for, the Art of Architecture?

The answer to the question is to be found in the enlarged activities of the salesman. Salesmanship is now the chief pursuit and aspiration of the British lowbrow. It will soon, no doubt, be included in the educational programme of the L.C.C., for it has long been a “subject” or “course” in American Universities, and a serious young student was recently observed in a Southern Railway carriage engrossed in an important volume enriched with diagrams and titled “Window-Dressing for Beginners.” Two or three years ago an advertisement masquerading as a news article was worked off on the readers of an evening paper, describing classes organized by a big shop for teaching its workpeople salesmanship, and detailing the instruction given in beguiling, flattering, cajoling and tempting prospective customers to spend more than they wished and buy things they did not want. It is not, however, the student with whom we are concerned, but with the teacher—the inculcator of the system; the master salesman, the commercial organizer, the big trade and retailing interests, the exploiting syndicates, the organizers of so-called “exhibitions” which are no more than cunning devices by which the promoters may catch both buyers and sellers in the same trap. Even publishing houses and theatrical syndicates are now often no more than salesmen, caring nothing for a work of genius or a great play, nor for literary or dramatic art, but only concerned, in their pursuit of “best sellers” and “long runs,” to follow the public about with a pinch of salt to put on its tail.

Now mark the result of all this. Profit lying in large sales, and machines being at hand which make it possible to overtake the cost of production and sell at less than cost price, it is necessary that the goods made and the inducement to buy them should appeal, not to the discerning few, but to the ignorant generality. We know the devices of skysign, poster, advertisement, and newspaper “write-up” by which big sales are courted, and we observe that these seek to create an emulative appetite in the general public for pretentious and, usually, spurious productions of machines—which productions are no less spurious because they no longer pretend to be anything else. Thus we see counters piled with shoddy metal pots methodically dented and discoloured with lacquer placarded “antique,” and cheap reproductions (so called)

of old furniture claim special merit because even the worm-holes are exactly simulated. On all sides we see the salesman fostering a demand for the shoddy, for the pretentious, for cheap machine-made imitations of the real thing, for mean and vulgar forgeries of craftsmanship, because these are the things it pays him best to sell; and he systematically flatters and inculcates ignorant taste because ignorance and vulgar tastelessness supply the readiest victims to his cajoleries.

Need we now wonder that the lowbrow press flatters ignorance and encourages vulgar taste, and teaches its readers to shriek "highbrow" in contempt of the man who would serve the community with contrary influences? The lowbrow press boasts that it is commercialized, and claims that it is the most efficient organization for selling. Not only is it the greatest of all salesmen, but it is very little else. It is a four-fold salesman. It sells itself; it sells its columns to advertisers, it effects the sale of goods advertised, and it sells goods of its own. I might claim that it is a salesman five times over in that it also "sells" its readers by fobbing off upon them advertisements disguised as news. It is not to be supposed that the

motive for macerating the one thousand forest trees that supply the paper pulp for one issue of a great popular daily is to inform the public of the latest minutiae of crime, or tell them of "Cat's three nights up a tree" or "How Mdlle. Lenglen keeps her stockings up." We have to look for justification in the advertisement pages and in the paragraph describing the large sale of cigarette holders resulting from one advertisement in the paper, or in that describing the excitement and adventure promised by a forthcoming clearance sale, or in the news items telling how Mr. Crawfish, the author of the successful novel "Lumpyraw" of which the publishers have printed 250,000 copies, has sprained his literary ankle, and how Miss Polly Pintack is going to Paris in an aeroplane to buy six new hats for her reappearance in "Hug Me Tight" which has been such a phenomenal success that, after only a fortnight's run, a new edition is promised.

This is the voice of the salesman. It is the voice that shouts highbrow; it is the voice whose monotonous drone afflicts life with a moral depression as though the habitation of the soul trembled day and night with the racket of a lie factory next door.

KARSHIS H.

Architects' Own Homes.—4

Mr. Frank E. Whiting's House, "Littlecroft," near Bideford

"LITTLECROFT," near Bideford, N. Devon, is the second house that Mr. Frank E. Whiting, F.S.Arc., partner in the firm of Orphoot, Whiting and Bryce, has built for himself.

The firm have offices in London, Edinburgh, and Bideford, which gives Mr. Whiting the opportunity of living in one of the most beautiful counties in England.

The site of "Littlecroft" is one of the finest in N. Devon, with the river Torridge at its base, and there are extensive views both up and down the river, and over Bideford with its old bridge of twenty-four arches, and away to Instow and Braunton hills beyond.

As far as was possible, local traditions have been followed, the house having large chimneys and a thatched roof, but instead of using the local uncrushed wheaten straw for thatching, Norfolk reeds have been used.

The living-room, the whole of the timber and floor of which is of oak, is the chief room of the house, and has a small annexe to take the piano. The main stairs also lead directly out of this room and form one of its features.

In the kitchen everything is to hand, the special feature being the sink fitment. This has a sink which can be open or closed, with two deep cupboards at the bottom on either side, while above these cupboards are flaps which can be let right down or used as table-leaves.

Water is obtained from a well, and the house is lighted from a small electric-light plant.

Mr. E. W. Cox, Bideford, was the general contractor, and sub-contracts were carried out as follows: Mr. H. J. Meredith, Bideford (hot water and plumbing); Mr. R. H. Grant, Bideford (electrical work); Mr. R. Farman, North Walsham (thatching); Mr. E. W. Cox and Messrs. Hockin Bros. (garden work).



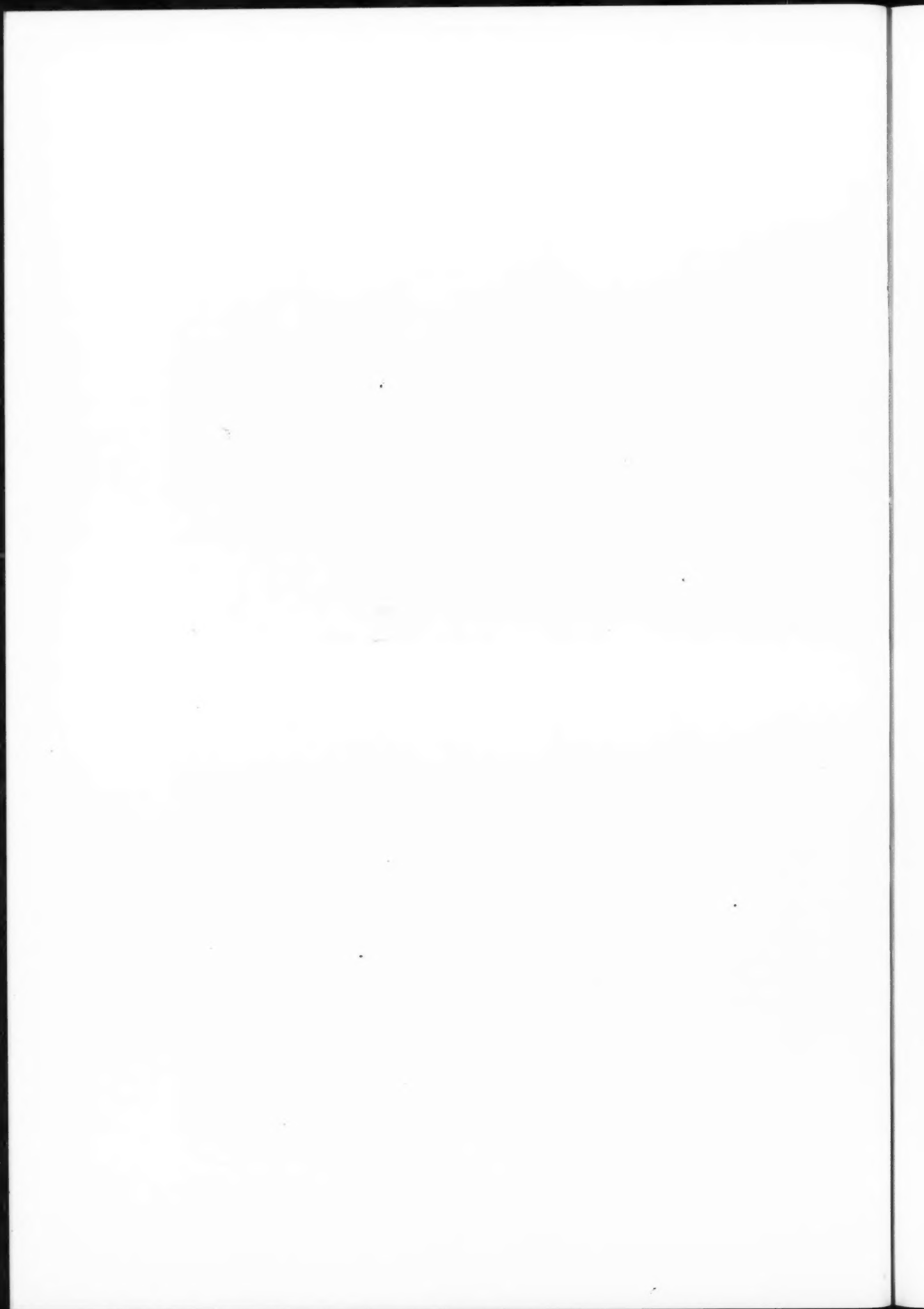
VIEW OF BIDEFORD AND THE RIVER AT LOW TIDE FROM VERANDA.

Modern Domestic Architecture. 70.—"Littlecroft," near Biddeford: The Entrance Front

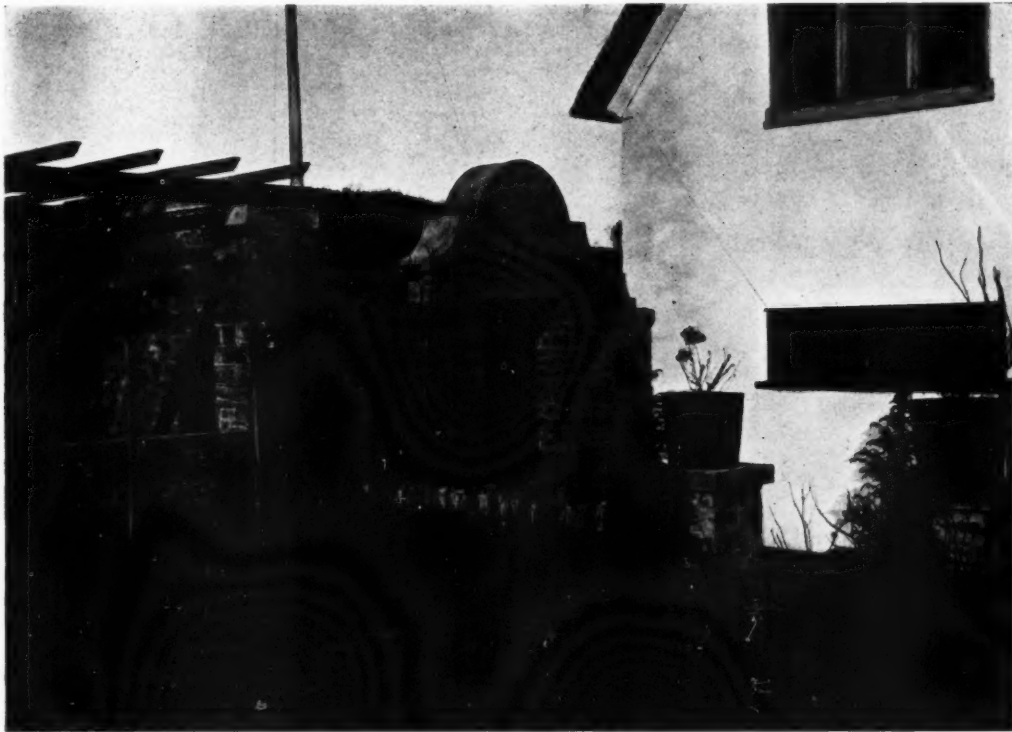
Frank E. Whiting, F.S.Arc., Architect



The site of "Littlecroft" is one of the finest in N. Devon. At its base runs the river Torridge, and there are extensive views both up and down the river, and over Biddeford, and away to Instow and Brainton hills beyond.



Modern Domestic Architecture. 71.—“Littlecroft,” near Bideford
Frank E. Whiting, F.S.Arc., Architect

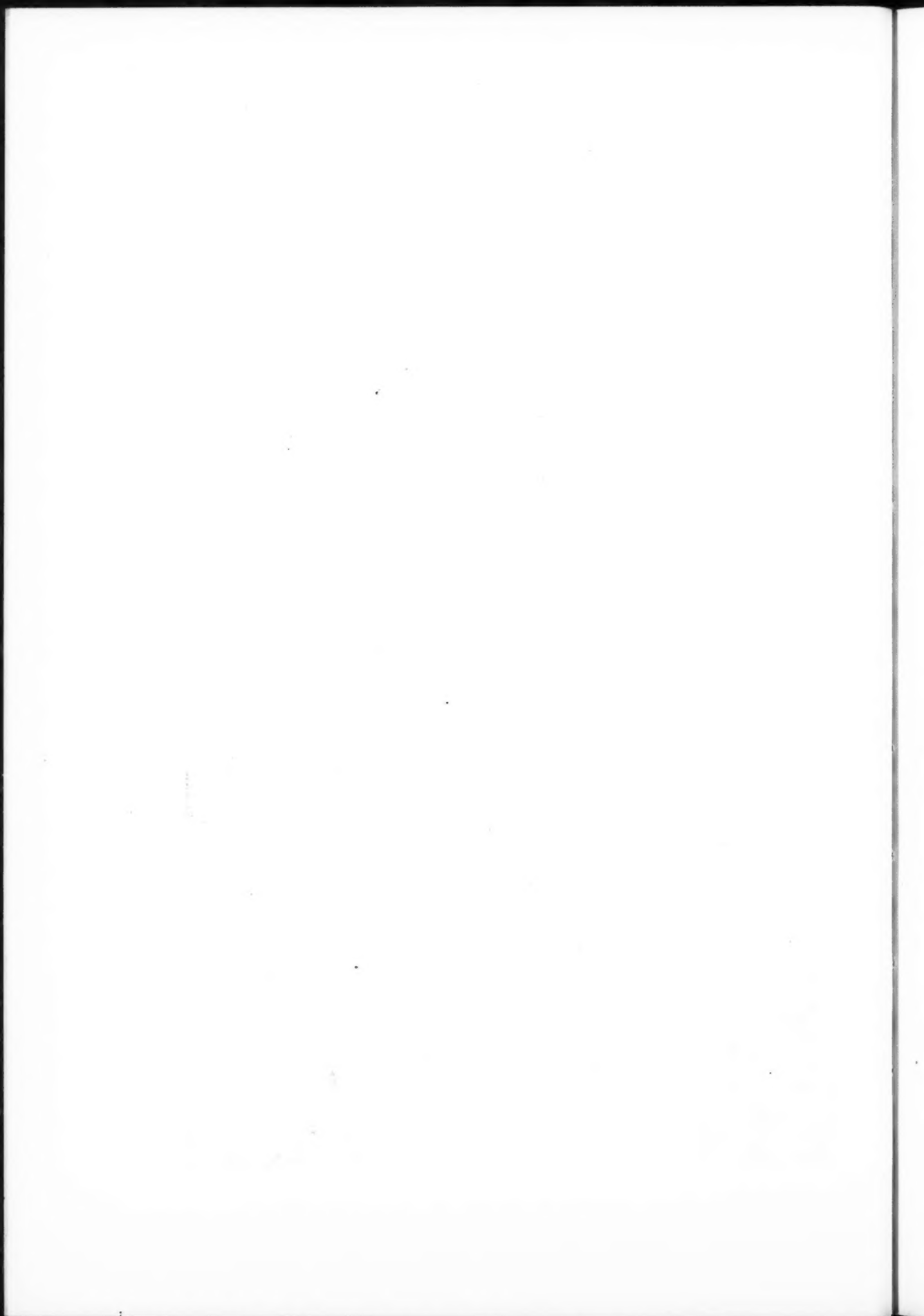


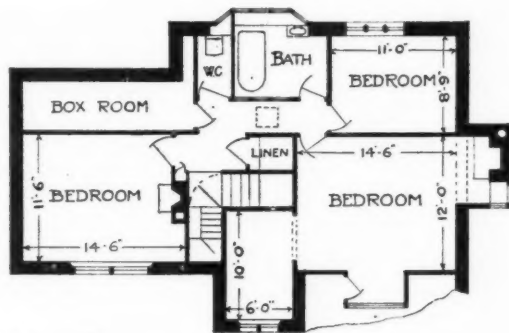
THE GARDEN DOOR.



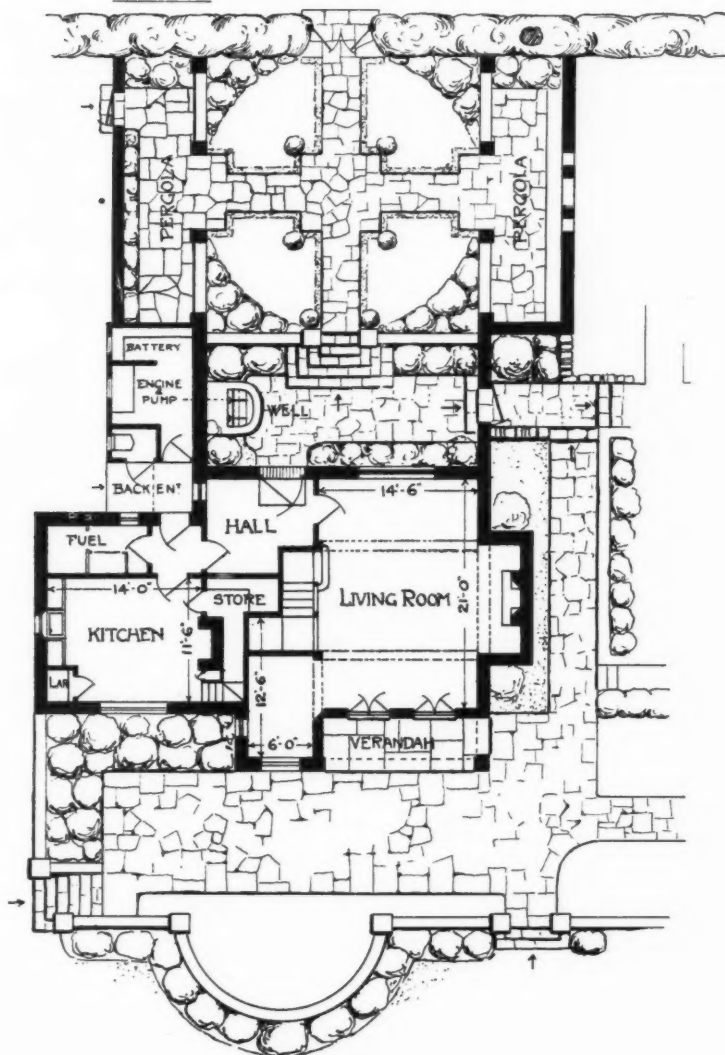
END OF FLOWER BORDERS, SHOWING SUNDIAL.

The sundial in the lower view was not only designed by the architect, but executed by him.





FIRST FLOOR PLAN



GROUND PLAN

"LITTLECROFT," NEAR BIDEFORD, FRANK E. WHITING, F.S.A.R.C., ARCHITECT.



KITCHEN FITMENT OPEN.



KITCHEN FITMENT CLOSED.

"LITTLECROFT," NEAR BIDEFORD. FRANK E. WHITING, F.S.A.R.C., ARCHITECT.



THE LIVING ROOM—FIREPLACE SIDE.

"LITTLECROFT," NEAR BIDEFORD. FRANK E. WHITING, F.S.A.R.C. ARCHITECT.

Old Cottages and a New House

A Local Intruder

WRITING in "The Times," a correspondent says: The newspapers recorded not long ago a dinner, with speeches, of a body called the Architecture Club, which exists, it appears, for the encouragement of modern architecture. I could not help wondering whether there was a corresponding body, the Unarchitecture Club, for the discouragement of certain forms of modern architecture. Or did, perchance, the brief reports of those speeches omit (no doubt by special request) the details of the Architecture Club's own preparations for activity in the discouragement of modern architecture? The mind's eye sees the members of the club leaping to their feet and draining their glasses with shouts of enthusiasm as the chairman announced (under seal of secrecy) that a band of unemployed experts in destruction has been secured on very favourable terms from a neighbouring island, and that news of their first achievements may shortly be expected. I hope they will come to my part of the country very soon. There is work for them.

Imagine a wide and rolling common, all bracken and moss and heather, sloping at one end to a little hamlet of three or four old cottages. Beyond the cottages rises a low hill, on which (*mirabile dictu*) the pine-woods have not been cut. And above the pine-woods upheave themselves the huge, gentle shoulders of the bare green downs. The common, the cottages among their fruit trees, with the blue smoke curling from their chimneys against the pine-woods, and

then the downs and the sky: even on a bad winter morning the scene is beautiful. And in the middle of it, close to the cottages, between the common and the pine-woods, on the most conspicuous spot that he could find, someone has stuck a house, built, apparently, of whitewashed cardboard, with strips of 2 in. stained deal nailed along the joins, and a roof of a shade of pink, which is at once as sickly and as violent as some of the cheaper perfumes. "Black-and-white," of course. I warrant he thinks it looks "Olde Englysshe." It can never look old, nor English; it can never weather, never tone in. Those old cottages, whose modest dignity (as of an ancient peasantry) it affronts, never looked so raw. When they were brand new, their bricks, their wood, their rich red-brown tiles, must have fitted at once into the beauty. They were a ribbon in its hair, jewels in its ears. The new house is a smut on its nose—or worse, if worse can be, since smuts are at least sober in hue.

This particular smut is the worst, but by no means the only occasion which the secret emissaries of the Architecture Club will find worth their attention when they come my way. They would find also (and that makes the need of them all the greater) not a few new houses which they should be strictly forbidden to touch: quiet, comfortable, homely places, built of local materials in the local style. Such newcomers we welcome. For the rest they must be put painlessly and swiftly out of—not their misery, but ours. Arson's the kindest thing.

The Principles of Architectural Composition

By HOWARD ROBERTSON, S.A.D.G., Principal A.A. School of Architecture

Foreword.

IN attempting to formulate some of the guiding principles of architectural design, I have been actuated by the desire to demonstrate that composition in architecture is susceptible of an analysis, in which can be isolated certain main factors which assist or militate against the production of successful design. The bare acknowledgment that such factors exist will assist in creating a desire for a rational basis for architectural criticism amongst laymen and architects alike, and a conscious understanding of recognized principles will be a guide to the architect's creative instinct. The judgment of architectural design has been so largely a matter of individual taste and opinion that it has too often resulted in the acceptance of standards which are sometimes pitifully low. Personal preferences in design will always continue to exist, but underlying these preferences there must be some common ground of agreement as regards the fundamental basis on which good composition depends.

There is no attempt in these notes to deal with the elements of buildings in detail, with such questions as those of colour and surface treatment, or with the practical requirements of various types of edifices. This field has been more or less adequately covered in a number of treatises, and other works on the subject are no doubt in course of preparation. In the matter of architectural design considered in the abstract, from the point of view of composition, our bibliography is, however, far less complete.

I am indebted to all those speakers and writers with whose opinions I have been fortunate enough to come in contact; the conclusions at which I have arrived are the result of discussion, reflection, and suggestion, consciously or unconsciously absorbed. It is, therefore, difficult to make due and adequate acknowledgment, but I would like particularly to mention my indebtedness to Mr. Trystan Edwards and Mr. Claude Bragdon, whose methods of treating the subject of architectural design appear to me to be the most susceptible of yielding valuable results in increasing an understanding of architecture, by analysis of principles rather than of the elements of building.

The section dealing with the Grammar of Design, in Mr. Trystan Edwards' wholly interesting book "The Things which are Seen," has been largely responsible for encouraging me to attempt this analysis on similar lines, but which covers a rather different field; and Mr. Claude Bragdon's "Beautiful Necessity" has been a source of inspiration and stimulus.

In considering the theory of architecture we distinguish two separate, though not entirely independent, points of view: that which regards the question of design in the abstract and considers the æsthetic effect of a building without special regard to its function and structure; and that which deals with the practical requirements of purpose, the elements which go to form the complete building, the methods of construction utilized, all matters which are related to what we may call, for the sake of brevity, functional design.

An understanding of functional design, the study of the building and its various parts, cannot, however, be satisfactorily translated into an architectural creation unless it is accomplished by a comprehension of the laws of composition, by knowledge of the grammar of design. The natural and often unerring instinct of the born artist may serve in lieu of a conscious effort towards creation, but even the most gifted designer will benefit by applying to his work the test of an examination of his design syntax. It is our purpose to attempt to formulate, however incompletely, an elementary theory upon which the designer may graft the results of his own observation and experience—a theory which

aims at resuming certain principles of which an analysis of good architecture has proved the existence, but which must not be misconstrued into an attempt to offer a rule-of-thumb recipe for producing ready-made beauty in architecture.

A criticism which may be levelled at many notable works of architectural analysis and appreciation arises from the obtrusion of the artistic preferences and prejudices of the author. Ruskin is a notorious offender in this respect, and is largely discredited to-day for the logical reason that he failed to acknowledge that good architecture is entirely independent of so-called "styles." Any "battle of the styles" is ridiculous in principle, as good or bad architecture may be found under the externals of any style or manner, according to the degree in which the principles of good composition have been adhered to, and worked out by understanding minds and hands. To praise one style as good, to condemn another as bad, is to adopt the attitude of a European who lays it down that all English women are beautiful and all Orientals are ugly. It should be one of the analyst's functions to try to satisfy himself as to whether a building is a success or a failure as a piece of composition, and for that he must look above all for the application of sound first principles. He may indicate his personal preferences, but praise or condemnation based on these alone will be valueless, for taste changes as the world progresses, and the rejected of to-day may be the accepted standard of to-morrow.

The problem of the architect of the twentieth century, as far as abstract composition is concerned, is basically the same as that which has confronted the designer throughout all the ages, for the principles of composition remain unchanged even though standards of appreciation have altered.

It is the nature of the creation to which these principles will be applied, and the manner of their expression, which are being constantly and infinitely varied. It is safe to say that as regards the former the modern architect has a more difficult and complex problem than his ancestors, while as regards expression there is the compensation of a sufficiency of undertakings which touch the imagination by their magnitude and the unrivalled technical resources available for their achievement; problems demanding greater flexibility and wider knowledge than of old, in which a multitude of practical and conflicting factors divert attention from the effort toward purely artistic creation. The examination of the practical factors which influence the design of buildings in a direct and concrete sense forms a study quasi-independent of the consideration of design in the abstract, and with these factors we do not propose to deal. Practical limitations, special requirements, conditions of all sorts, produce in the design of buildings certain characteristics which may well dominate the whole conception. This phenomenon will not, however, release the designer from his task of attempting to handle the resultant forms of his building in such a way as to express his vision or conception of what such a building should be. The processes of his mind should be so trained as to enable him to form his conception, and his knowledge of the grammar and technique of abstract composition should enable his conception to be cast in such harmonious form that its realization will satisfy certain æsthetic requirements which a consensus of enlightened opinion demands of what is termed a work of art.

Perfection of grammar, a technique however perfect, is not, however, sufficient by itself, and is only a means to an end. It constitutes merely the media of expression of the fundamental idea. The test of good architecture is the interest, the importance, the quality of the idea which the architect is attempting to express in his building, and

judgment on a building is judgment on the human personal ideal of which that building is the expression.

The essentials of good architecture are considered, therefore, as including an almost abstract quality which may be perceptible to different people and in various degrees, and they are consequently extremely difficult to tabulate. Definitions have been frequently attempted, but even the most satisfactory leave something to be explained. The oft-quoted Sir Henry Wootton, who finds in good building the qualities of "firmness, commodity, and delight," sums up the essentials with a brevity which is full of savour. In this case it is certainly the inwardness of "delight" which makes the greatest demands on the explanatory powers of the analyst, and it is safe to conclude that recognition of its presence is largely a matter of the personal equation, that it depends, in fact, on the existence of a link of sympathy between the mind of the beholder and the idea of the designer who imbued his building with an attribute derived from his own personality. The reactions which a building will produce on certain trained minds will, therefore, differ in the ratio of the infinite variations of their possessors' own feelings and intuitions; but at the same time these minds, being schooled to appre-

ciate perfection in the grammar of design, will agree in finding in the building certain definite analysable qualities or defects independent of an abstract character or expression of personality.

It is to the examination of these analysable qualities that we wish to proceed. Architecture, we have argued, is the expression in concrete form of an idea. The same may be said of painting, sculpture, music, or literature, in fact, of any art which is original and not imitative. Any idea or conception, before it can be satisfactorily translated into any medium, must *a priori* be complete, and cannot be composed of scattered elements which are unrelated to each other and represent diffusion as opposed to unity. The conception being necessarily a unified whole, it follows that its concrete realization in architecture must express complete unity. It is the presence of the quality of unity in architecture which marks the difference between an architectural composition and a haphazard arrangement of scattered architectural elements which, if they may be dignified by the title of "conception," must be considered as representing a weak and incomplete idea of a necessarily low order.

(To be continued.)

The Meaning of Town Planning

A Broadcast Talk from Cardiff by W. S. Purchon, A.R.I.B.A.

TOWN Planning—to put it briefly—means the arranging of towns in an orderly manner.

It is thought by many that this is a modern idea, but as a matter of fact more than 2,500 years before the birth of Christ the small town of Kahun in Egypt was deliberately planned on a definite pre-designed pattern to house the builders of one of the pyramids.

Similarly the Greeks, some hundreds of years B.C., planned towns with considerable skill, and their main buildings were not only amazingly beautiful in themselves, but were also arranged skilfully on five sites so that their beauty had the maximum effect.

The Romans were great town planners, and not only in Rome or in Italy, but throughout the then known world they left striking evidences of their wonderful skill; fine examples of municipal dignity, with streets and buildings designed on a scale worthy of a great empire.

There remain, too, interesting examples of the town-planning efforts of the middle ages, the schemes of Edward I (late thirteenth century), for instance, being famous. As examples of this time may be mentioned Carnarvon, Conway and Flint.

The great cultural movement of the fourteenth and fifteenth centuries in Italy led to striking town-planning developments in the three following centuries in that country and in France, Germany and England. So that town planning is no new art.

Unfortunately with the rush of country dwellers to the towns during the industrial revolution of the early part of the nineteenth century, the lessons of the past were largely ignored, and towns developed in a more or less haphazard manner with deplorable results.

It is difficult to realize now that until that period towns were places which delighted the eye, instead of being, as is unfortunately so often the case nowadays in our industrial districts, a menace to real health and a blot on the landscape.

Now town planning, an old art which is coming into use again, is a means towards the improvement of town life. It may take the form of a great civic centre, as, for example, the fine scheme in Cardiff; it may mean the complete planning of a new town as it so often did in the time of Edward I—a modern example being Canberra in Australia; the term may be applied to a garden village

development or to the clearance of a slum area in a city, with subsequent rebuilding on modern lines, but it is being increasingly applied to something greater than any one of these, though it does *not* mean what so many timid souls fear—the immediate pulling down of vast areas in our towns and the prompt rebuilding of them regardless of expense.

We can gain most from town-planning methods by using them to control the changes and the development of our villages, towns and cities, so that the places in which we live and work, instead of steadily deteriorating by the process of haphazard growth, may steadily improve by the process of gradual change worked out on scientific and artistic lines.

To achieve such results it is first necessary to investigate the problem of the particular town or area with great thoroughness, this investigation being known as a Civic or Regional Survey.

From this information a plan can be produced showing on what lines the town or area can best be developed. This plan may, for instance, forecast what the town ought to be like in, say, 20 years' time, and then as changes are gradually made in the town, and as growth proceeds around it, these changes and growth can be fitted into the pre-designed scheme.

It may even be that the town in question is big enough, and that further growth should be in villages some little distance from the town or, as has been suggested in some cases in Wales, a new town should be started elsewhere.

But whatever the problem, tackling it on town-planning lines means the substitution of forethought for chance, and the provision of an orderly scheme rather than haphazard growth leading gradually to chaos.

Town planning is not restricted to buildings and roads. It deals with transport problems, park systems, recreation centres, allotment gardens, etc. It aims at making towns and cities more efficient, more healthy, more pleasing, and more inspiring.

In order that schemes of town planning may achieve the best possible results it is essential that there be a strong body of well-informed public opinion behind them. For this reason it is important that the Civic and Regional Surveys of which I have spoken should be published, so that we may all have an opportunity of studying and understanding the town or district in which we live.



DETAIL OF A PANEL IN SERVICE BAR.

"The Black Friar," London

H. FULLER-CLARK, Architect

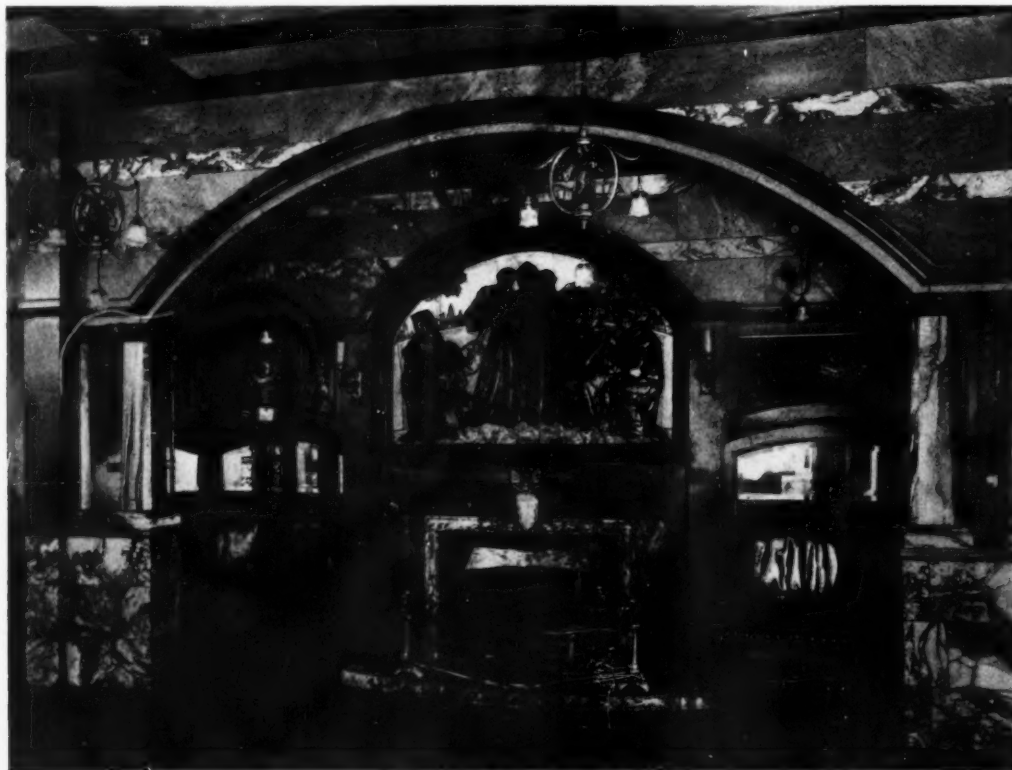
THE basement, ground, and first floors of "The Black Friar," 174 Queen Victoria Street, London, were remodelled a few years back, and a small railway arch has been added recently. The vault ribs are of alabaster, and the key-stones are of arni alto and black and white marble, the space between being filled in with gold mosaic, with bull's-eyes of red, white, and blue marble at intervals. The general surface of the vault is of heliotrope vitreous mosaic formed into panels, with margins of cream, bordered with black, white and gold, with bas reliefs inserted as illustrations to the electro-gilt quotations on the frieze. The centres of the three bays are enriched by modelled plaster (tinted ivory and picked out in blue), filled in with gold mosaic, that in the middle having a black and white star with the signs of the zodiac round.

The cornice and the frieze are of pavanazzo, with carved blocks illustrating nursery rhymes, and inlays of onyx and lapis lazuli, with four sculptured marble brackets, symbolical of day and night, fixed in the cornice to receive bronze electric-light fittings. The pilasters are of Greek cippolino, with statuary marble caps carved as illustrations of

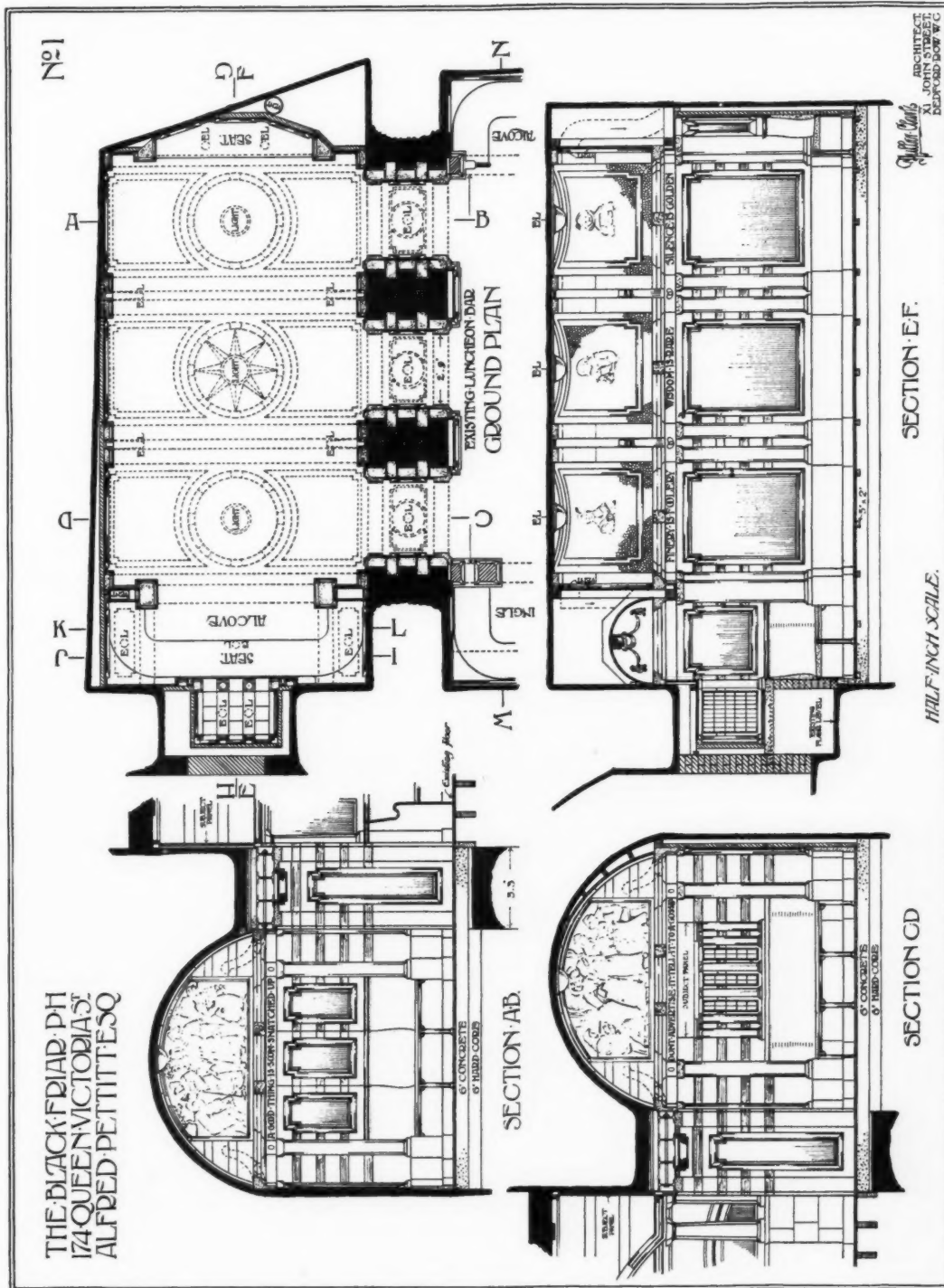
Æsop's Fables. The bases are of various tints, the plinth of Cork red, and the skirting of Napoleon. The filling is of light sienna, with bands of Swiss cippolino. Bevelled mirrors with oak frames of varying sections, wax polished, form the panels.

The feature in the alcove has shafts and pilasters of various marbles, with bases of varying sections and tints. The carved caps represent "the last drop" and other subjects, and the decorative panel, in which copper, marble, mother-of-pearl, mosaic, and garnets, turquoise, and other gems are used, represents "Contentment surpasses riches." The soffit is formed into panels of gold and other mosaics. The recess is lined with marble with bronze frames filled in with mirrors in small lead squares.

Two more panels will be placed in position shortly at either end as illustrations to the quotations already fixed, and four bronze imps representing Art, Literature, Music, and Drama, are to be installed on each side. The clock, placed in an amended position, is supported on carved oak brackets, with carving between representing "It is tuns that makes the Music." A subject panel is placed over the three connecting openings (carried out in copper, marble



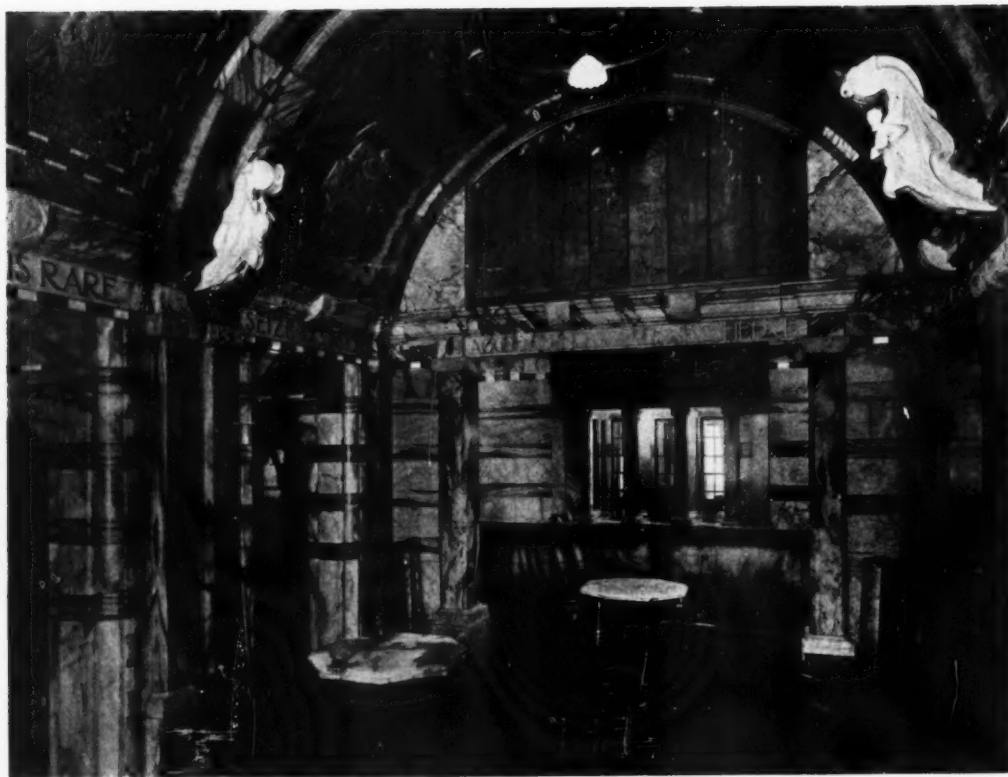
CHIMNEYPIECE IN SERVICE BAR.



"THE BLACK FRIAR," LONDON. H. FULLER-CLARK, ARCHITECT.



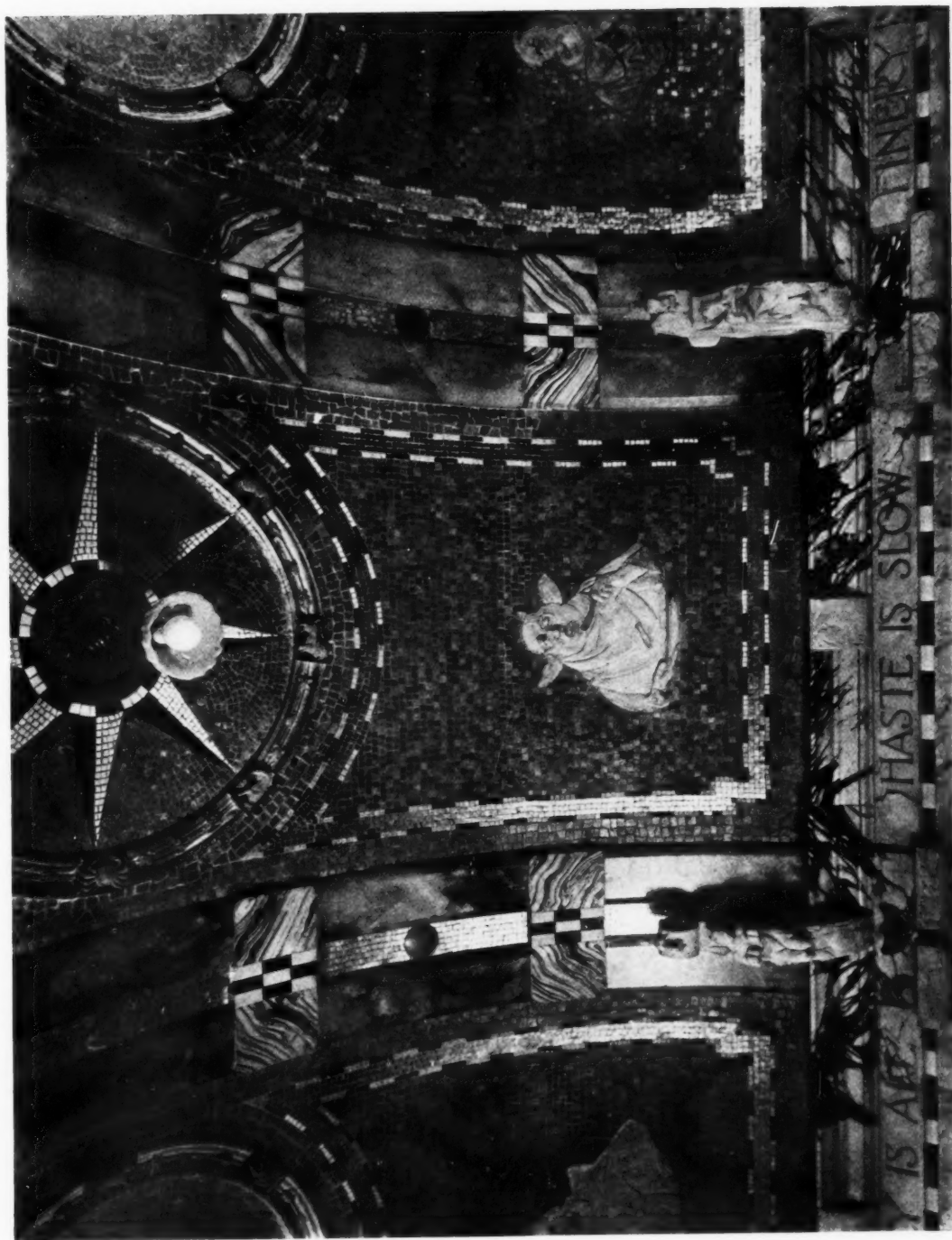
VIEW LOOKING FROM SERVICE BAR INTO SMALL SALOON BAR.



SMALL SALOON BAR.

"THE BLACK FRIAR," LONDON. H FULLER-CLARK, ARCHITECT.

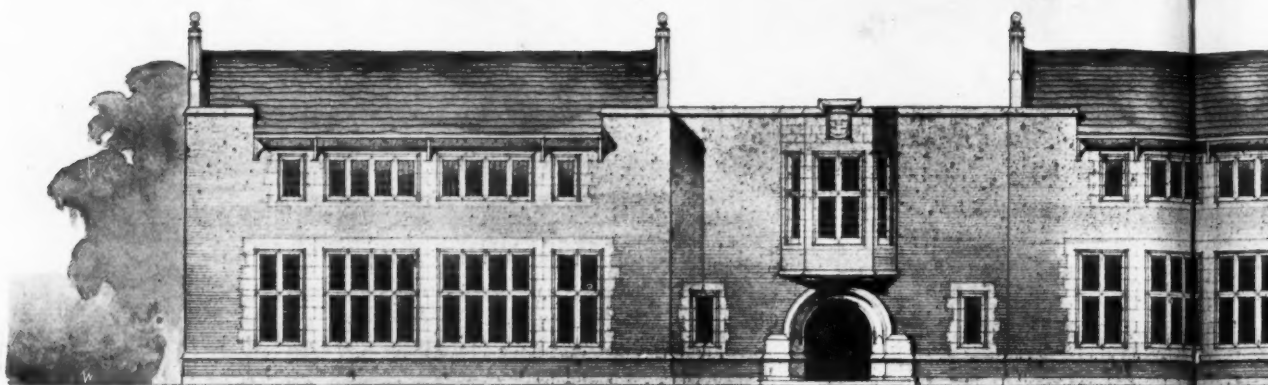
Details of Craftsmanship. 25.—“The Black Friar,” London. Detail of Vault in Small Saloon Bar
H. Fuller-Clark, Architect



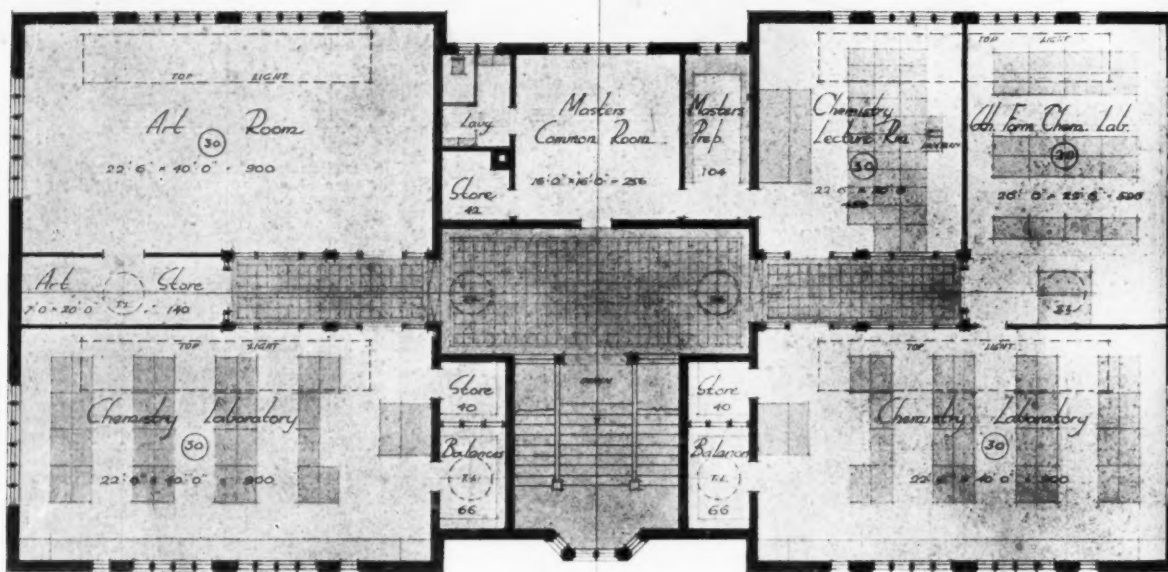
The general surface of the vault is of heliotrope vitreous mosaic formed into panels with margins of cream, bordered with black, white, and gold, with bas-reliefs inserted as illustrations to the quotations on the frieze.



"THE BLACK FRIAR," LONDON. CARVINGS IN MARBLE ILLUSTRATING AESOP'S FABLES.
H. FULLER-CLARK, ARCHITECT.

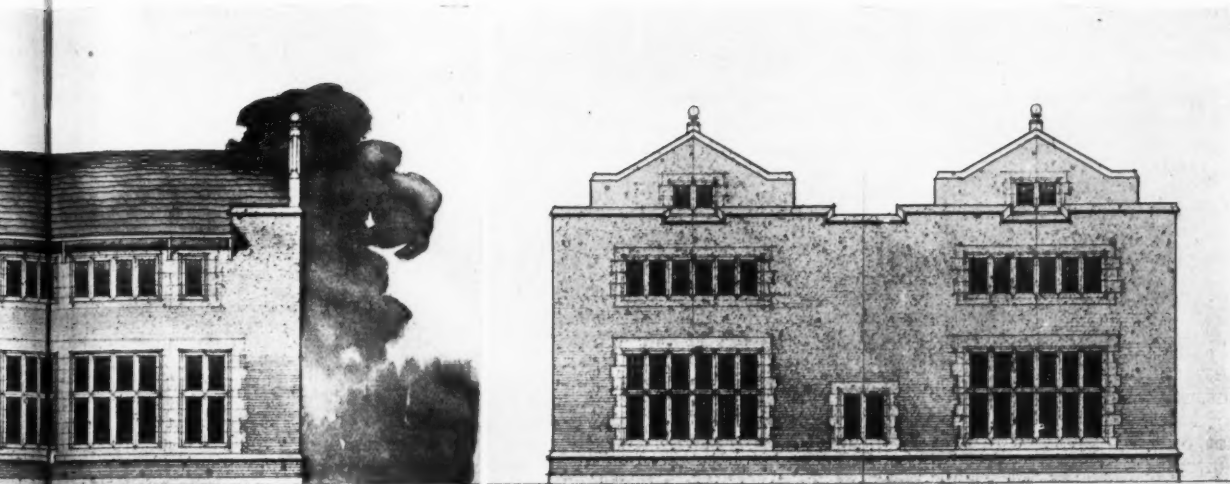


The Front Elevation

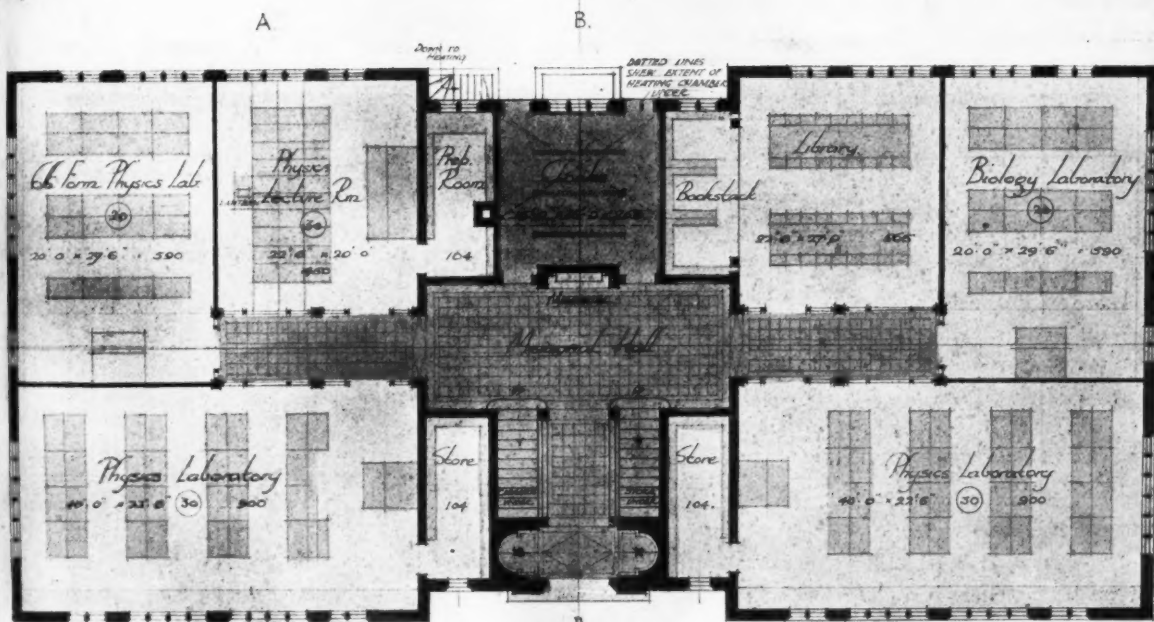


First Floor Plan





The End Elevation



Ground Floor Plan



of various tints, mother-of-pearl, and enamelled inlays), entitled "Saturday Afternoon," similar to others previously installed over the service bar and fireplace in illustration of "To-morrow will be Friday" and "Carols."

The late Mr. Frederick Callcott carried out the last-named panels, and Mr. Henry Poole, A.R.A., of Chelsea, is responsible for the decorative panels, bas-reliefs, and electric-light brackets in the new room.

Messrs. T. Rider and Sons were the builders. Messrs. E. J. and A. T. Bradford executed the carving in marble and in oak, and the fibrous plaster enrichments; Mr. Nathaniel

Hitch the small caps and clock support; Messrs. Rust's Mosaic Co. the mosaic to the vault, Messrs. Fenning & Co. a portion of the marble work and mosaic, the Art Pavement Co. the ribs to vault, and Messrs. Farmer and Brindley, of Westminster, were responsible for the remainder. Messrs. Marryat and Place were the electrical engineers, and Messrs. Albert Hands and Sons supplied the electrical fittings. Messrs. C. E. Welstead, Ltd., provided the bronze frames and lead glazed mirrors for the mock window, and the Birmingham Guild and Messrs. G. Hobbs and Son supplied the electro-gilt letters.

Magazines of the Month*

A Literary and Pictorial Digest

THE ARCHITECTURAL REVIEW for January illustrates the new Stadshus, or Town Hall, at Stockholm. Mr. J. Murray Easton, who describes the building, says that it is representative not only of architecture, but also of the best that the country could produce in sculpture, painting, and all the decorative arts. "The achievement of the architect, Ragnar Ostberg, in inspiring and co-ordinating the work of these artists is so unique that one may be forgiven for speaking of it before dealing with the design of the building." The Golden Hall—a magnificent banquetting hall—the writer compares with the greatest rooms of Europe. "Its actual size is considerable, but its proportion and the modelling of its form produce an effect that is no less than majes-

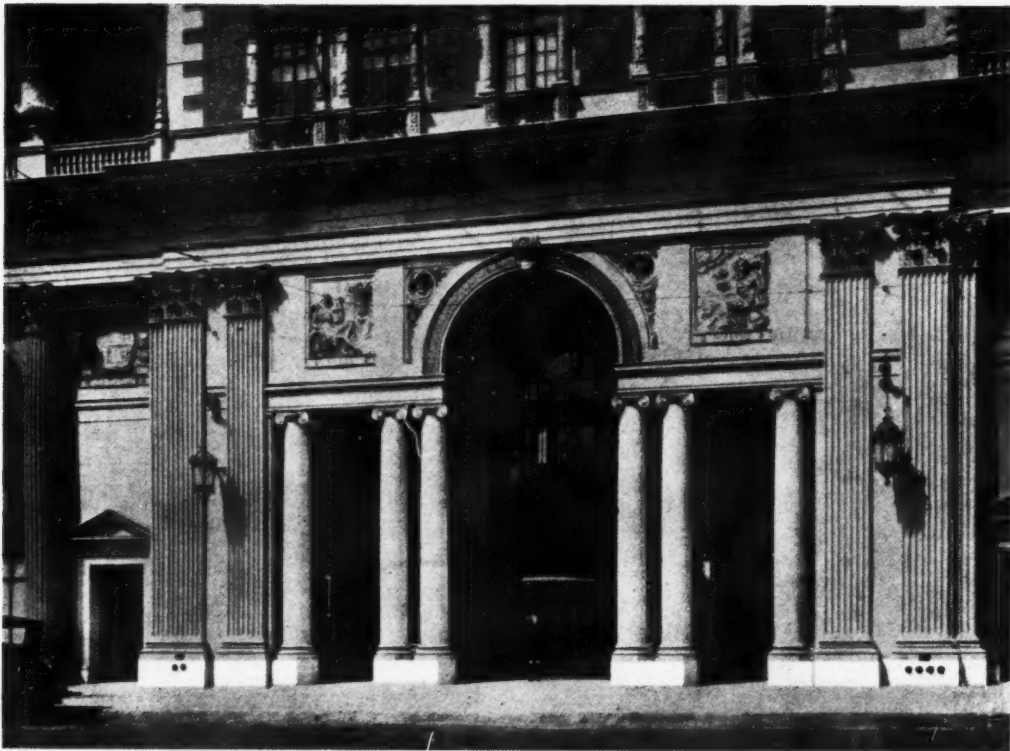
tic." The walls are of gold glass mosaic, and the ceiling of red and gold concrete beams. Among the domestic work represented in the number is a house by Mr. E. Turner Powell at Melbury Abbas, Dorset, which has the distinction of being built of a new natural material. In the course of excavating at a quarry of greenstone, near the proposed site, at a depth of 10 ft. below the greenstone was found a raft of an impenetrable substance, which proved so hard in texture that only by drilling and blasting could any result be obtained. Specimens submitted to the Natural History Museum were found to consist of hard glauconite sandstone. The first of a series of reproductions of the well-known Tallis "London Street Views" also appears in this number, being contributed by Mr. E. Beresford Chancellor. The number of prints issued, says Mr. Chancellor, was

* All these magazines may be seen in the Reading Room at 29 Tothill Street, Westminster.



THE NEW TOWN HALL, STOCKHOLM: THE GOLDEN HALL. RAGNAR OSTBERG, ARCHITECT.

(From "The Architectural Review.")



LOS ANGELES-BILTMORE HOTEL, LOS ANGELES. SCHULTZE AND WEAVER, ARCHITECTS.

(From "The Architectural Forum.")

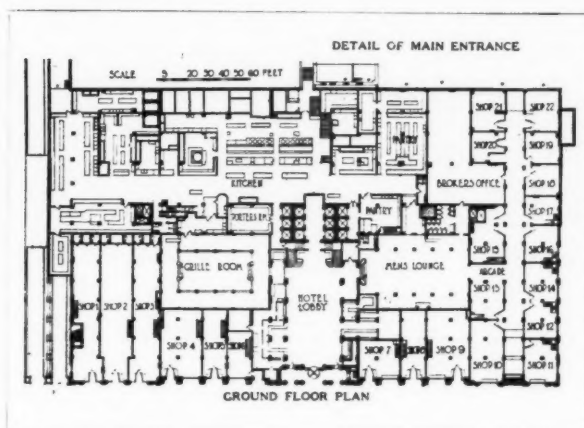
eighty-eight, and the streets dealt with were the principal thoroughfares both in the east and the west. The one illustrated in this instance is St. James's Street.

The November issue of THE ARCHITECTURAL FORUM is devoted to hotels, dealing in a series of articles fairly exhaustively with their design, equipment, and administrative requirements. That illustrated is the largest hotel west of Chicago, and in the spaciousness of public rooms excels any hotel in the country. There are 916 guest rooms and 826 bathrooms. The total dining capacity, including private dining-rooms, is 2,500; the ballroom accommodates 650 people. These rooms are served by two kitchens and five serving pantries. The construction is fireproof, of steel frame with reinforced concrete floors. The exterior materials are granite and limestone on the lower stories and light red brick with terra-cotta trim above.

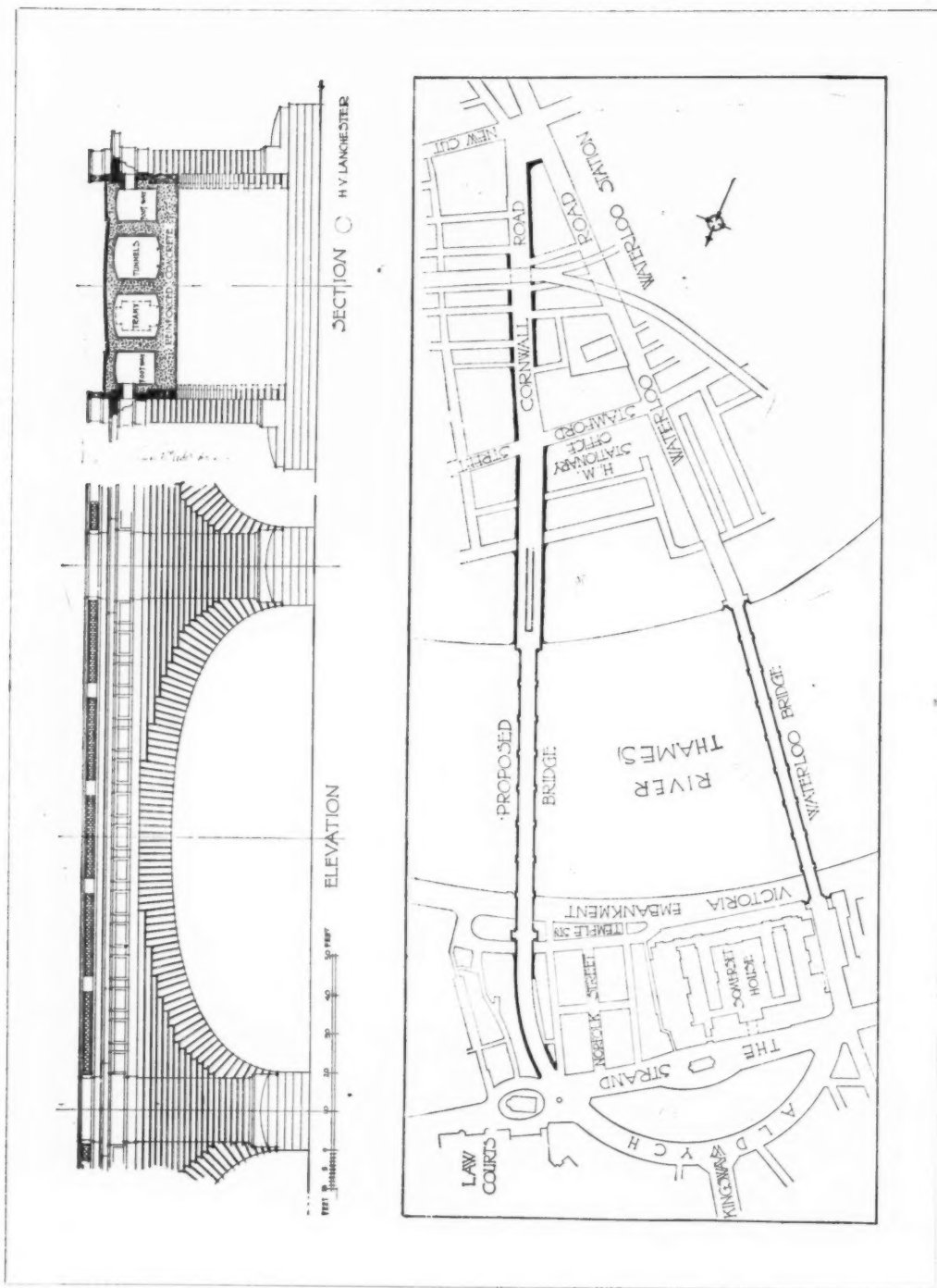
In the January number of ENGLISH LIFE Mr. W. N.

Adams contributes an interesting article on the "Planning of the Small Country House." Amongst other things he says: "Very rarely indeed can one particular design for one particular site be repeated in any other position unless the splitting up of the land for sale to prospective house builders has been done according to a pre-conceived plan. More and more, this work too is being entrusted to architects and specialists, and a new branch of the architectural profession, that of town planning, daily becomes more and more important."

The Society of Architects have asked Mr. Jonathan Cape to undertake the publication of ARCHITECTURE on their behalf. The January issue is the first to come out under Mr. Cape's imprint; and several important developments are foreshadowed in the Editorial. The most conspicuous feature is an article on Waterloo Bridge accompanied by some remarkable photographs of the bridge taken from different points along the river. One shows Waterloo Bridge in its relation to the Obelisk, another combines it with the Red Lion Brewery in a picture of surprising attractiveness. A number of old prints are also given, including a beautiful contemporary pencil drawing showing the bridge in the latter stages of construction, viewed from the margin of the river at Bankside. Mr. and Mrs. Clough Williams-Ellis, in an article entitled "The Dark Age in England," analyse the various manifestations of the Victorian spirit in architecture. Mr. A. Trystan Edwards summarizes his recent series of articles on good and bad manners in design in a brilliant survey entitled "Five causes of Vulgarity in Architecture"; while the predilection of Egyptian and other excavators for museum specimens is censured by Mr. Clennell Wilkinson. But perhaps the most interesting contribution to this issue consists of a series of drawings of the new bridge recently advocated by Mr. H. V. Lanchester in "The Observer." Mr. Lanchester proposes to relieve the burden of traffic not only for Westminster Bridge but also for Waterloo, which is at present being inspected by the L.C.C. and



LOS ANGELES-BILTMORE HOTEL, LOS ANGELES.



DESIGN FOR A PROPOSED NEW BRIDGE ACROSS THE THAMES. H. V. LANCHESTER, F.R.I.B.A., ARCHITECT.
(From "Architecture.")



REFECTORY BUILDING AND BOAT LANDING, COLUMBIA PARK, CHICAGO
CHATTEN AND HAMMOND, ARCHITECTS.

(From "The American Architect.")

to a description of which such a large portion of the same issue of *ARCHITECTURE* is devoted. The position of Mr. Lanchester's bridge is opposite the eastern arm of the Aldwych; and by an ingenious arrangement it is provided that the trams at present emerging from the subway by Waterloo Bridge, and any other tramways that can be diverted from Westminster Bridge, shall traverse the new bridge in a tunnel contrived immediately below the roadway. In view of the extraordinary difficulties attaching to the construction of a new road bridge at Charing Cross, and the uselessness of the proposed bridge at Lambeth leading from nowhere to nowhere, Mr. Lanchester's proposal deserves careful consideration at the critical present moment in the history of Thames bridges.

A recent issue of *THE AMERICAN ARCHITECT* illustrated the refectory building and boat landing, Columbus Park, Chicago (Messrs. Chatten and Hammond, architects). This building has a concrete foundation, the superstructure being built of Gothic brick with stone trimmings, and red tile roof. It is located at the west end of the Columbus Park lagoon, and is 270 ft. long measured in an east and west direction, with a pavilion extending south 89 ft. from the main building. The main floors are of tile and terrazzo. The concrete boat landing lies east and adjacent to the building, and is 100 ft. long and 20 ft. wide, resting on concrete piers. A concrete terrace, 118 ft. long, 18 ft. wide, extends along the north side of the building. A similar terrace, 18 ft. wide, 33 ft. long, extends along the south side, overlooking the lagoon and water garden. The lower floor will accommodate boaters in summer, and skaters in winter, with provision for checking 1,000 pairs of skates. This floor has a refreshment booth, toilets, boiler-room, coal-room, workroom, and storage space.

THE ARCHITECTURAL RECORD for December contains a beautifully illustrated article upon "What Architecture

Demands of the Camera," by Mr. Leon V. Solon. The accompanying photographic studies are by Sigurd Fischer. Walter Hampden's production of *Cyrano de Bergerac* is the subject of an article by Mr. Claude Bragdon, who states some of the problems and describes some of the processes involved in the staging of this play.

The Institution of Structural Engineers' journal for January appears under the new title of *THE STRUCTURAL ENGINEER*. It is also under new editorship. Among the subjects dealt with is "The Practical Designing of Structural Steelwork Details," a paper by Mr. Joseph Clarke, M.I.Struct.E.

The current issue of *COUNTRY LIFE* contains an article by Mr. James Bone upon the Portland stone quarries. In it he touches upon the strangeness in remembering that, almost, London itself once stood here! "Wren's contractors cut the stone from these quarries, much as it is done to-day, with wedges and 'feathers' . . . and the stone was worked down by trolleys, jacks, and crowbars to the little pier that can still be seen. There it was shipped into sailing ketches, much the same as those you see at Castletown on the other side of the island that carry the undressed stone to-day to the Vauxhall wharves. The ketches take any time from five days to six weeks to bring the stone to London. There were constant complaints in those days of the seamen and masons in the boats being arrested by the pressgang when bringing up the stone for Greenwich and St. Paul's, and Wren's work was often delayed by these doings. It was delayed, too, by the Portlanders, with whom he had many sharp conflicts. In one case, he threatened the 'jury' of quarrymen that if he received more insolence from them he would tell the queen (Queen Anne) that they disputed her rights. It is curious to see these 'weirs' with their débris, and with here and there a squared stone, and the green lanes made for the carts and trolleys, and the little pier, all there as though Wren and his men had just gone away."

Correspondence

Sashes or Casement Windows

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—The word "sash" seems to have been first applied to the wooden frames upon which paper, parchment, linen, etc., rendered translucent with oil or fat, was stretched. These were used to fill the lowest portions of windows, the upper part being filled with either glass or wooden trellis. Although the earliest example which the New English Dictionary gives of the use of the word—a corruption of *Fr. chassis*—is in 1681, it must have been in common use in its anglicized form long before this. In 1393 Ripon Minster paid "In wages of two workmen" (carpenters) "making and fixing 'sashes'" ("Memorials of Ripon," *Surtees Soc.*, vol. iii. p. 119).

King John II of France, who was imprisoned in the Tower of London after being taken prisoner at the battle of Poitiers in 1356, paid "Denys le Lombart, de Londres, charpentier, pour la façon de 4 fenestres pour la chambre du Roy en la Tour de Londres. C'est assavoir; pour le bois des 4 chassis, 3s. 2d." ("Accounts of John of France whilst a prisoner in London," preserved in *Biblio. Nat.*, Paris, and printed in "Douet d'Arcq. Comptes de l'Argenterie").

These sash windows were frequently painted with imitation quarry work, or even with heraldry to imitate stained glass. Thus in 1431, in the accounts of King's Hall, Cambridge, the following item appears: "Paid to the painter for painting the King's Arms and oiling of the other windows of the great gate and of the Master's chamber" (Willis and Clark, "Architect. Hist. of Univ. of Cambridge," ii. 446). Hence in mediæval accounts such windows are, to the confusion of the reader, frequently referred to as being made of "glass."

As suggested in your note in a recent JOURNAL, sash windows to slide up and down were probably invented in this country, for Lister in his "Journal of Paris," 1699, tells how he was shown over a Parisian house by the owner, who "showed us his great Sash windows, how easily they might be lifted up and down, which Contrivance he said he had out of England. There being nothing of this Poise in Windows in France before."

JOHN A. KNOWLES.

The Architectural Shilling

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—Mr. McArthur Butler evades the points raised in my previous letter on the above subject. He refers to the copy of "The Times" which contains "illustrated advertisements of several important buildings in the West End of London and the name of the architects."

As I stated in my previous letter, my remarks referred to the "building of houses," and specifically mentioned the "£800 house"; it would appear that Mr. Butler has no sound arguments to advance on the small-house question.

Mr. Butler states that "the architect, far from being handicapped by professional restrictions on advertising, is by reason of his profession accorded much of the professional publicity which those carrying on other callings endeavour to secure by advertising." If this is so, why are the names of prominent architects so little known in connection with their works?

Can Mr. Butler name any architect—at present living—whose name is as familiar to the man in the street as any of the following representatives of other callings named at random: Winston Churchill, Marshall Hall, Ethel M. Dell, Tom Webster, "Duggie" Stuart, "Steve" Donoghue, "Andy" Wilson, "Sandy" Herd, Georges Carpentier, Owen Nares, Charlie Chaplin, and "The World's Sweet-

heart"? If no architect has attained such publicity as these, then, I suggest, his methods are out of date.

Estate agents, authors, actors, universal providers, and others understand the psychology of advertising, and realize that it must be continuous and persistent until such time as by the association of ideas their names or brands must be stamped on the retina of the subconscious mind in connection with their services or the goods they sell.

It is a practical impossibility for the man in the street to think of parliament without the names of politicians springing to the mind. Meditations on whisky conjure up visions of "Johnnie Walker" and "Black and White." Mention of the stage releases the names of its principals from the subconscious to the conscious mind. Again, can one think of health salts without that jaunty figure of "Grandpa" leaping into the limelight? Can the general public think of houses without the associated idea of an architect? I regret to say it can.

Could the association of ideas be kept up without advertising? Personally, I doubt it.

C. F. OVERY, M.S.A.

The Election, the Trade Unions, and the Building Industry

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—The leading article in your issue for December 5 was, by reason of its preoccupation with trade unionism, prejudiced, because surely the subject matter of your leader should have included a criticism of those who have controlled the price of building materials, a very large factor which could not possibly have been forgotten. However, the article may have been written on the crest of election excitement, for in a later issue, in your own words, you have returned to the question of housing "with no apologies," and your analysis is generous in that it touches upon various sides of the question.

No one will deny that, of all the serious handicaps to the welfare of the nation, bad housing conditions take the front place, and although your leader was more concerned with facts than with abstract principles, the facts that were put forward led up to the statement of the sound principle that the State, if necessary, must aid the community to pay for a commodity which benefits the community.

To solve the housing problem, there must be some form of State control. Up to the present, the State has not attempted to formulate proposals which show a determination to battle with all the evils of the case.

The shortage of houses in October, 1919 (assessed by local authorities)	911,811
Normal requirements, 1919-1923 (according to Mr. Neville Chamberlain, then Minister of Health)	161,000
	1,072,811
Houses built with State assistance, 1919-1923	215,000

Shortage at introduction of Government Bill 857,811

To deal with this situation, the Government in April, 1923, introduced a bill to provide 120,000 houses in two years. The bill was passed, and amongst other interesting things, the State contribution towards slum clearance is only £230,000 a year.

The Tudor Walters Committee on Building Construction, which sat in 1918, reported that the housing needs of the country were 100,000 houses per annum. To carry out this programme at an average cost of £500 per house would mean £50,000,000, representing at 5 per cent. an annual charge of £2,500,000; rents should bring in at least

£1,500,000; add to the £1,000,000 deficit provision for Sinking Fund, and it still compares very favourably with the £3,000,000 a year, exclusive of poor law, spent on unemployment benefits for building workers. This programme would have to be enlarged to wipe out the present shortage, but even this would be a paying proposition. I am aware of the old cry: "No skilled labour," but cannot examine that in a short letter.

Trade unionism is by no means the chief contributor to the present evils. That other influence, the price of building materials, must also be examined, and the aid rendered by the State must be criticized also, if we architects, mindful of the dignity of our profession and its position of trust, are to lend our weight to the shifting of the present housing muddle.

ALISTER G. MACDONALD.

[We beg to differ from the opinion expressed by our correspondent in his opening sentence. A consideration of the policy of the building trade unions does not necessarily involve an examination of the price of building materials—

the two subjects are obviously separate and distinct. Our correspondent says nothing that in any way refutes the facts upon which our article for December 5 was based. —ED. A.J.]

The Assessing of Competitions

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—I was much interested in the leading article published in your issue for December 26. I feel that the suggestions therein put forward as a remedy for the present lax and unsatisfactory method of dealing with competitions do afford a sound and workable solution, which I trust may be seriously considered by the "powers that be."

I feel sure that the bulk of my fellow-Associates would eagerly welcome the adoption of some such system. The unsatisfactory working of the present methods has been evident in the unfortunate results of several recent competitions. Surely it is time some steps were taken in the direction of reform!

CHARLES TOWLE.

The Truth About Housing*

IT has now become a recognized custom amongst publishers to epitomize a book in a few sentences on the dust wrapper, but, in common with the statements of most other purveyors of commodities, there is a very natural tendency to over-eulogize so that these remarks can rarely be accepted at their face value. In order not to be prejudiced we make a point of not reading them until we have finished the book and come to our own conclusions about it, and rare indeed are the occasions when we find ourselves in complete agreement with the publisher. Yet here is an occasion when we find that the very words that we had prepared to pen are written on the wrapper of the volume: "This is the book the housing discussion has been waiting for. Coolly and dispassionately written it surveys every phase of the problem. The data bearing on the question . . . are subjected to a searching analysis . . . an argument proceeds with relentless logic to the profoundly disturbing conclusion that the housing problem is beyond the capacity of Private Enterprise to solve. The writer brings to his task a combination of professional and political experience probably unequalled. It is boldly and courageously written without regard to the political susceptibilities of his own or any other party; nothing is extenuated nor set down in malice, while through it runs a vein of satire and irony."

These are extracts from the publishers' notice and they are almost the precise headings from which we had intended to develop our review of this book.

Discussions about housing in the past have largely been based upon opinions rather than upon facts; moreover, skilfully isolated facts can be as mendacious as a quotation dragged from its context. For instance, it is stated as a fact that private enterprise in the past, and particularly before the People's Budget, succeeded in providing houses in sufficient number. Major Barnes shows how the deficiency in houses has been steadily increasing between 1801 and 1911; the number of surplus families increased from 320,000 to 860,000, and, although since the population increased more rapidly the percentage of houseless to housed may have decreased, the total number of houseless is ever growing. Private enterprise has, therefore, not succeeded in providing sufficient houses in the past; moreover, it has never made any attempt to provide houses for the very poor, to whom it is said "you can't have new houses any more than you can have new clothes." And if it has been unable to provide sufficient houses in the past, when the financial conditions have all been in its favour, what chances are there to-day when there are no prospects of an adequate return for money invested in houses, of its being not only able to keep pace with the demand, but also to make good an enormous accumulated deficiency?

* "Housing: The Facts and the Future," by Harry Barnes. Ernest Benn, Ltd. London. 25s. net.

Since the war three Housing Acts have been passed. The first was a fine broad statesmanlike measure; unfortunately, the administration of it was beyond the powers of those to whom it was entrusted. In the first place nothing quite like it had ever been attempted before, the nearest approach in times of peace was the administration of public education, but this differed fundamentally from housing, in that it was a service and not a commodity, the nearest approach in times of war was the provision of munitions, but war being essentially a wasteful enterprise, the cost was scarcely considered. Dr. Addison brought to his task high ideals and great enthusiasm, but many of the men upon whom the success of the enterprise depended had neither ideals nor enthusiasm, other than to benefit themselves, and so the ever mounting costs necessitated an abandonment of the programme. Next came the Additional Powers Act, a measure devoid of all qualities except that of compromise, and hence doomed to ignominy and failure, its contribution is both quantitatively and qualitatively poor; moreover, the houses which were built by its means rarely benefited those most in need. Of the Chamberlain Act, it is still too soon to speak, but it is essentially a Lawyers' Act, niggardly and intricate, lacking in breadth and courage.

When facts do not coincide with wishes there is a tendency to avoid facing them. *Sooner or later the housing problem must be faced.* The facts and figures of the past must be examined and deductions must be drawn; these will surely lead to the conclusion that housing, like education, old-age pensions, and insurance, must become a public responsibility. In 1898-99 the cost of education was £12,027,311, this year the estimate for education is £47,875,000, and for other services, £61,647,000. Thus the cost of public, social services has increased by nearly a hundred million pounds, and to this it is proposed to add several millions for housing. Major Barnes estimates that if we face our responsibilities properly, before the expiration of the present census decade, we shall have incurred an annual expense of £15,000,000 for housing. "No doubt," he says, "such a prospect will appear appalling to many people, but the trend of things is not to be changed merely by an aversion to it."

The objection of many people to a national housing programme is that those who benefit do not contribute. But this is not true. Indirect taxation, to which all contribute, more than covers the cost of social services. This is shown in Major Barnes's analysis of the current budget.

We repeat that this book, with its clear statements, its clear thinking, and its clear deductions, with its invaluable appendix and tables, is indeed "the book the housing discussion has been waiting for." And no politician, no architect, and, indeed, no responsible citizen should fail to read it.

H. J. B.

Enquiries Answered

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

OVEN TILES FOR FLOORING.

"D" writes: "12×12 in. hand-made sand-faced red quarries or oven tiles have been laid to a kitchen floor. A red dust comes off the tiles, and grease falling on the tiles cannot be removed as it appears to soak in and discolours what otherwise is a nice looking floor. Is there any preparation with which the tiles can be covered to prevent these defects? Will Ronuk polishing be of any assistance?"

—The large (12×12 in.) tiles are usually of a porous nature and liable to "dust up" and stain. Polishing wax or Ronuk will be effective, but the initial application may be expected to absorb a large quantity of the preparation and the colour of the floor will be somewhat darkened. E.

ELM WEATHER-BOARDING.

"H" writes: "Can you give me any information with regard to the elm outside wall-boarding one so frequently sees in illustrations of houses? I should like to know the thickness of the boards, whether they are planed or left rough from the saw; whether they are feather-edged or rebated, the size of the fillet at the angles; if nailed with copper nails; whether the studding should first be covered with boarding and felting before the elm boards are fixed; also the method of making the joint between the boarding and window-frame watertight."

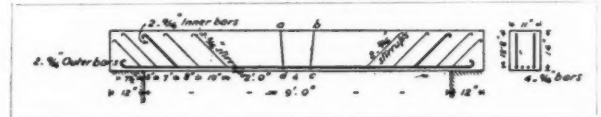
—The boards are best not feather-edged or rebated, but sawn $\frac{3}{4}$ in. or 1 in. and fixed as soon after conversion as possible. They could no doubt be nailed with copper nails if holes were bored for nailing, but the wood is very refractory and wrought-iron flat-headed nails 3 in. or 4 in. long are generally used. Angles may butt on a fillet thick enough to stop the lapped boards, or each alternate board may be crossed over the end of that which meets it, with no fillet, the boards being cut as fixed. A good lap should be given to the boarding as it shrinks considerably, and it is advisable to underline with felt or Willesden paper—which may be used to make a tight joint next window-frames, or in very exposed positions lead or copper soakers may be used. For further points on elm boarding see "Little Things that Matter," No. 6, ARCHITECTS' JOURNAL, March 1, 1922, or in book form. E.

SIZE OF REINFORCED CONCRETE LINTEL.

"P" writes: "What should be the dimensions of a reinforced concrete lintel for the following position—to span opening in 11 in. hollow brick wall, 9 ft. in the clear, and to carry 11 ft. high of 11 in. hollow wall and floor, plus its share of tiled roof of 22 ft. span?"

—Assuming that the joists of the first floor run towards the lintel so that the weight is carried by the latter, and that the roof is similarly carried by the wall over the lintel, the distributed load on the lintel will be about 11,340 lb.,

and the maximum bending moment $\frac{WL}{8} = \frac{11340 \times 9 \times 12}{8} = 153,090$ lb. in. Then assuming $153,090 = 85bd^2$ to allow for weight of beam, $bd^2 = 1,801$. With $b = 11$ in., $d = \sqrt{\frac{1801}{11}} = \sqrt{164} = 12.8$, and allowing for cover the total depth will be, say, 14 in. The reinforcement at 0.675 per cent. of the effective cross section will be $\frac{11 \times 12.8 \times .675}{100} = .95$. Say there are 4 rods, then $\frac{.95}{4} = .2375$ sq. in. area required in each, say, four $\frac{9}{16}$ in. rods = .248 sq. in. each. The bearing should be not less than 12 in. long at each end. The ordinary method is to take the net bending moment = $95bd^2$ to get an approxi-



mate beam and then add its weight to the load to get a nearer size. By the method above we have found a beam with an effective depth of 12.8 in., which ought to be sufficient for the total load. Its weight will be $14 \times 11 \times 9 = 1,386$ lb. Adding this to the external load we have a bending moment of $\frac{(11340 + 1386) 9 \times 12}{8} = 171,801$ lb. in. But

$95bd^2 = 95 \times 11 \times 12.8 \times 12.8 = 171,212$ lb. in., which is very close, showing that the constant 85 was applicable. The lintel will then be as in accompanying illustration. In order to ensure that the lintel shall not be accidentally put in upside down, it will be desirable to form an imitation keystone on the face, as shown at *abcd*. This may project about $\frac{3}{4}$ in. The two inner reinforcing rods should turn up at 45 deg., as shown, and the two outer rods run through. The shear stirrups, $\frac{3}{16}$ in. diameter, should be placed as shown, being twisted on the outer rods only.

HENRY ADAMS.

THE STAMPING OF BUILDING AGREEMENTS.

"H and K" write: "We are users of the form of agreement and schedule of conditions for building contracts issued by the R.I.B.A., and should be pleased to know the value of the stamp which should be attached to make these contract agreements legal and binding upon client and builder. Should the stamp duty vary according to the value of the contract, a copy of the scale of stamp duties would greatly oblige."

—The agreement requires a sixpenny stamp. A copy of the Schedule to the Stamp Act can be seen at the Society of Architects, 28 Bedford Square, W.C.1. S.

COMPARATIVE COST OF BUILDING.

"S" writes: "Can you give me the increased cost per cent. of building each year from 1914 to 1922?"

—The following table has been calculated to indicate the percentage of increase in the cost of building over the rates ruling at July, 1914. During the war period the rate of increase was fairly steadily maintained, but an effort has been made to show, from March, 1919, the increases as they occurred at the different periods. The figures given must not be taken as applying in a hard-and-fast manner generally but as a guide only, and will naturally be subject to such allowance as may be necessary to cover various classes of work. They have been calculated upon the basis of straightforward contract work of moderate size:—

Date of most marked change.	Labour, per cent. above 1914.	Materials, per cent. above 1914.	General cost of building, per cent. above 1914.
July, 1914	Zero	Zero	Zero
July, 1915	Negligible	12	6
July, 1916	11	38	23
July, 1917	28	58	32
July, 1918	55	110	82
March, 1919	94	105	100
July, 1919	96	112	103
December, 1919 ..	122	123	122
May, 1920	132	168	152
June, 1920	170	170	170
* September, 1920 ..	170*	180*	175*
May, 1921	150	155	152
July, 1921	146	146	146
August, 1921	134	143	140
September, 1921 ..	126	134	130
February, 1922 ..	122	92	109
April, 1922	102	80	98
June, 1922	92	78	86
July, 1923	85	72	81

* It will be seen that the highest point was reached about September, 1920.

Law Reports

Fitness of Flat for Habitation

Emms v. Wilkinson.

December 17. King's Bench Division. Before Mr. Justice Talbot.

This was an action by the plaintiff, Mr. Charles Emms, against Mr. Joseph H. Wilkinson, of Monument Station Buildings, E.C., claiming damages for alleged breach of an implied condition, that a flat which he rented from defendant at 10 Malcombe Court, Dorset Square, was fit for habitation. Defendant denied the allegation and counter-claimed. Mr. F. Hinde appeared for the plaintiff, and Mr. R. F. Hayward for the defendant.

Plaintiff stated that he took the flat for a year from January 7, 1922, at a rental of £5 5s. per week. Three days after taking possession he saw twenty or thirty beetles in the kitchen, and he tried to beat them down with a stick. He had found them under the dressing-table, under the bed, and crawling up his dressing-gown, which was behind the door. They were also amongst the crockery and the food. On making a complaint the landlord sent a man with a tin of powder and a "squeegee." For a day or two the beetles disappeared, but when the powder was exhausted they returned. Plaintiff then tried a powder, but was unable to get rid of the insects. His wife in consequence got very "nervy," and would not eat in the flat. They had to have their meals away from the flat.

In cross-examination, witness said he tried to get in touch with a beetle-catcher. He kept putting down powder. The presence of the beetles was prejudicial to his health. He had to go to a Harley Street specialist to have his blood tested. For some years he had suffered from stomach trouble, and in consequence his food had to be specially prepared. He had bought various things from the chemist's in order to keep the insects from the food. Asked if a tin of exterminator which was sent was not effective, witness replied that he did not think it absolutely got rid of them.

Other evidence was given in support of plaintiff's case.

Defendant gave evidence. He said he was tenant of the flat. He held it on a five years' agreement when the flat was built in 1915, and he renewed the agreement in 1920. Since 1916 the flat had been let furnished, and it had been continuously occupied. He was introduced to plaintiff by a previous tenant of the flat. Between Christmas, 1921, and January 6, 1922, witness visited the flat, but did not see any beetles. On January 23 defendant received a letter of complaint from plaintiff, but he heard nothing further until he was told plaintiff had left the flat in March 1922. Witness had never any complaints that the flat was uninhabitable by reason of black beetles either before or since the tenancy by plaintiff. Another tenant had taken the flat now.

In cross-examination, he admitted he had seen some black beetles in the flat about three or four years ago.

Further evidence was called for defendant, a witness putting in an inventory of the flat and showing dilapidations amounting to £12.

Mr. George Frederick Clark, in the employ of Messrs. Robbins, Snell and Terry, house agents, stated that a continuous hot-water supply, as provided in the flat, might have a tendency to produce beetles, but his experience proved quite the exception. On one occasion he had a complaint about beetles in the flat. It was his practice to instruct a firm of vermin destroyers to get rid of the nuisance. He did not think the beetles were numerous enough to justify plaintiff giving up the flat, because they could be got rid of.

His Lordship, in his judgment, stated that plaintiff had to prove that when he went into the flat it was so infested by the insects that it was not fit for human habitation according to the ordinary practice and understanding of mankind. His lordship had come to the conclusion that

plaintiff had not discharged the onus that lay upon him, and judgment would be given for defendant with costs. On the counterclaim there would be judgment for defendant for £2 2s. 8d. without costs.

Tenantable Repair—Construction

Jay and another v. Jay and another.

December 19. King's Bench Division. Before Justices Sankey and Talbot.

This was an appeal by the plaintiffs from a judgment of Judge Harrington, sitting at the Epsom County Court, in favour of the defendants. Plaintiffs were the owners of certain freehold premises at Epsom, and in the County Court they sought a declaration that Edwin Jay, deceased, who was tenant for life of the premises, was liable to keep them in good tenantable repair, and as against the defendants, his executors, for his failure to carry out his obligations.

The full facts of the case are set out in the judgment of the Court.

Mr. Justice Sankey said under the will of one Smart, of 1872, the late Edwin Jay became the tenant for life. The will provided that the tenant for life should keep the property in good tenantable repair. Mr. Jay succeeded to the property in 1907, and let it under a lease to a Mr. Keep, who was under no liability to keep the fence in repair. During Mr. Jay's lifetime the boundary fence was out of repair and was not put right. Mr. Jay died in September, 1921, and the present plaintiffs became the owners of the premises. Probate of Mr. Jay's will was taken on November 2, 1921. That action was not commenced until February 16, 1923, against Mr. Jay's executors, that being fourteen months after probate of Mr. Jay's will, and defendants contended that the only action which could be brought against them as executors would be one for damages for permissive waste committed by the late Mr. Jay during his lifetime, and that such action would only lie against them by virtue of section 2 of the Civil Procedure Act, 1833, and they therefore contended that the action was statute barred, because under that section the action must be brought within six calendar months after the executors had taken on themselves the administration of the estate. The County Court judge decided in favour of the defendants. On appeal it was urged that where a tenant for life took and enjoyed property under the terms of a will in that form the law implied a contract between him and the remainderman, and that, therefore, the 1833 Act did not bar such an action for contract; that in fact it had nothing to do with it; that that Act in effect only gave a limited right to bring an action within a certain time against a man's executors in respect of a tort committed by him. To that defendants replied that the relationship between such a tenant for life and a remainderman was not really in the nature of a contract, but that the real position was that equity, when administering the estate of such a tenant for life, would compel him to do the right thing, namely, that as he had enjoyed the property he must also discharge the liabilities and that as in that case equity would follow the 1833 Act of Parliament, and barred the remedy, unless it was sought for within six months.

The Court was of opinion that it was impossible in a case of that character to say that there was a contract between the tenant for life and the remainderman. The truer view was that contended for by defendants, namely, that equity under the circumstances compelled the performance by the person, who had enjoyed the benefit of the estate, of the burden attached thereto. The question was then whether on the passing of the Act, 1833, the period of limitation thereby imposed would have been applied by a Court of equity to the equitable remedy already recognized by which the estate of a tenant for life was after his death

liable for his failure to fulfil his obligation to repair. The deceased was in no sense regarded as having committed a tort, but he having elected to take the benefit, his estate was held liable to bear the burden. They were of opinion that equity would not have applied the limitations prescribed in the Act of 1833 to such a case. Under these circumstances they came to the conclusion that the County Court judge was wrong. The appeal would be allowed and the case remitted to the County Court judge to deal with in accordance with the Court's decision.

Interesting Decision as to Fixtures

Greer v. Black and others.

December 19. King's Bench Division. Before Mr. Justice Bailhache.

This was an action by Sir Fredk. A. Greer, one of the judges of the King's Bench Division, against Mr. R. W. Black, Mr. G. Carver, and the Rev. H. R. L. Sheppard, vicar of St. Martin's-in-the-Fields, claiming as owner of leasehold premises at Chelsea Park Gardens against all the defendants a declaration that certain fixtures, fittings, and chattels at those premises were his property and that he was entitled to possession of them, and against the defendant Black damages for breach of an agreement dated January 8, 1920, for delivery up of the fixtures, fittings, and chattels or their value, and damages for the conversion or detention of them; against Mr. Carver and Mr. Sheppard, delivery of the fixtures, fittings, and chattels, and damages for conversion and detention; and against Mr. Sheppard also damages for breach of an agreement dated June 15, 1918.

Mr. Carver had a sub-lease of the premises as trustee for Mrs. Sheppard.

Mr. Clement Davies appeared for the plaintiff; Mr. H. J. Astell Burt for the defendant Black; and Mr. D. B. Somervell for the defendants Carver and Sheppard.

Mr. Davies said that Sir Arthur Greer bought the house in 1916, and in 1918 let it to Mr. and Mrs. Sheppard, who occupied it till recently. Subsequently the plaintiff sold the house to the defendant Black for £4,000 subject to the plaintiff's having an opportunity of removing the fixtures at the end of the Sheppards' tenancy. Mr. Black then sold the house to Mr. Carver as trustee for Mrs. Sheppard, but did not give the plaintiff an opportunity to remove his things. Having in the meantime bought another house, Sir Arthur Greer wanted his things, but he was unable to get them.

Sir Arthur Greer stated that he took no part in the negotiations with the Sheppards. When he bought his present house he wrote for the fixtures; there was no condition in the conveyance to Black, but it was understood that the fixtures would be returned when Black sold the house. He thought that very few of the things were fixtures in the strict sense, but he was not giving evidence as to the law. In his view Mr. Black ought to have sold to the Sheppards subject to the agreement that he (the plaintiff) should be at liberty to remove his things. The great majority of the things were chattels, not fixtures.

Lady Greer said when she and Sir Arthur Greer removed, she left as much for the Sheppards as she could; some of the things were antiques, which did not deteriorate.

Mr. Somervell submitted that where a purchaser without notice came into possession of the house the fixture passed. Mr. Black sold to Mr. Carver, who had no knowledge of any agreement between Mr. Black and Sir Arthur Greer, and therefore the fixtures passed to him.

Mr. Carver said that his view was that he had bought the house with the fixtures. As to the things which were not fixtures, he had never been in possession of them. He knew nothing about any arrangement as to fixtures before that time.

Mrs. Sheppard said most of the things were fixed. She had sold some of the things under the impression that they were hers.

Cross-examined by Mr. Davies: It must have been in 1921 that she sold them, after she bought the house. She knew that Sir Arthur Greer claimed them, but her trustee,

her brother, Mr. Carver, told her that they did not belong to him.

Cross-examined by Mr. Burt: She had taken the proceeds without consulting her brother. Her only reason for not returning the things to Sir Arthur Greer was that her brother told her that he had bought them. Some of the articles were now in the crypt of the church and some had been removed to the vicarage.

Mr. Somervell argued that the deed would pass everything appurtenant to the freehold, and it could not be cut down by looking at a parol agreement. As Black's agreement with the plaintiff was not under seal, he gave a good title to Mr. Carver. As to the Sheppards, at the time of the lease to them it was expected that Sir Arthur and Lady Greer would be returning to the house. There was no evidence of any arrangement for them to re-enter the house to remove the fixtures, because no one contemplated it. The Sheppards paid an additional rent in respect of these things. Mr. Carver from the outset took the attitude that he bought the house with the fixtures and fittings, and the Sheppards' attitude was governed by that.

His lordship, in giving judgment, said he accepted Lady Greer's evidence that the things were left behind for Mrs. Sheppard's convenience. The rent was to be £250, but if these things were left there was to be a further rent of £50. The rent was not divided, but was put in as an inclusive rent of £300. At that time it was contemplated that at the end of the tenancy the Sheppards would be returning to the vicarage and the Greers to their own house. In the meantime Mr. Justice Greer found it convenient to sell the house to Mr. Black, a partner in a firm of estate agents. It was clear from the correspondence and the memorandum contained in two letters that Mr. Justice Greer was to be allowed to go in and remove his things. Later, Mrs. Sheppard thought that she would like to buy the house, and she acted in the purchase of it as agent for her brother, Mr. Carver. Then the time came when Mr. Justice Greer thought that he would like his furniture and fittings back, and he wrote to Mrs. Sheppard. There was a good deal of correspondence, and presently Mr. Carver came on the scene. He never denied that Mr. Sheppard was the tenant or that the arrangement had been made, but he said that he had no notice of the arrangement and that he bought the house with the fixtures. As to the chattels, Mrs. Sheppard had refused to return them; some were in the crypt of her husband's church, and she said that her trustee bought them.

His lordship did not want to say anything unnecessarily about the nature of that defence. He contented himself with saying that a less meritorious defence it had never been his lot to hear.

Mr. Black was guilty only of inadvertence in not giving notice to Mr. Carver, but it was inadvertence for which he should pay. Mrs. Sheppard had committed a flagrant breach of the agreement made with her husband.

He thought that the proper order was that there should be judgment for the plaintiff against Mr. Black and Mr. Sheppard, each judgment for £175, and costs; but, of course, if one paid the whole execution would not issue against the other. The person who ought to pay was Mr. Sheppard. Mr. Carver had never been in possession of the articles and had no knowledge of the arrangement. As against him the action would be dismissed, but without costs.

Restrictive Covenant Issue

Kelly and another v. Lady Florence Barrett.

December 21. Chancery Division. Before Mr. Justice Tomlin.

In this case, Mr. Ed. Kelly and Sir S. P. M. Maryon-Wilson sought to restrain the defendant, Lady Florence Barrett, from carrying on a nursing or maternity home at 40 and 42 Fitzjohn's Avenue, Hampstead, in breach of restrictive covenants.

Mr. Green, K.C., and Mr. Baden Fuller represented the plaintiffs, and Mr. Grant, K.C., and Mr. Swords, the defendant.

The plaintiffs said the land was conveyed to Messrs. Kelly, builders, and that the laying out as an estate amounted to a building scheme.

The conveyances to Messrs. Kelly of Nos. 40 and 42 Fitzjohn's Avenue, which were substantially in the model form, each contained a covenant by Messrs. Kelly, with the vendor, his heirs, and assigns, owners for the time being of the site and soil of Fitzjohn's Avenue (amongst other things), that no building other than a messuage or messuages being a detached or semi-detached villa or villas, with brick or stone facing, to be used for private residences and stabling, greenhouse, and conservatory, should at any time thereafter be erected on the piece of land thereby granted, and that no messuage for the time being erected on the said piece of land should be used for any purpose other than that of a private residence.

Both properties were now vested in the defendant, with notice, it was alleged, of the restrictive covenants. Plaintiffs said that the uses of the houses by defendant would depreciate the value of the houses owned by the plaintiff Edward Kelly and other houses in Fitzjohn's Avenue. They claimed a declaration that the use of Nos. 40 and 42 Fitzjohn's Avenue as a nursing or maternity home was an infringement of the above covenants and an injunction to restrain the defendant from using the same premises for any purpose other than that of a private residence.

By her defence the defendant denied that the plaintiffs were, or either of them was, entitled to the benefit of the said restrictive covenants, and alleged that Fitzjohn's Avenue had been taken over by the local public authority on November 23, 1882, and was still vested in them.

His lordship held that the plaintiffs' case failed, and he dismissed the action with costs. He held that various stipulations were imposed on sub-sales, that there was, in fact, no scheme, and that the covenants in the conveyances of 1880 could not be imposed as against the defendant.

The interest of Sir Spencer in the avenue was not the original interest of his predecessor. The road had been taken over by the local authority, and it was admitted that this vested in the local authority so much of the actual soil of the avenue as might be necessary for the purpose of preserving, maintaining, and using it as a street, so that the vendor's successor could not to-day show that the surface of the avenue was vested in him, or that he sued to-day in respect of the estate or interest which belonged to his predecessor, or that the restrictions touched or concerned such land as he now had. He did not think, therefore, that the vendor's successor could maintain the action. Even if he was wrong as to this, he thought that to grant an injunction in such a case as this would go beyond anything that had been done in any reported case, and be oppressive; and there was no damage.

Contemporary Art

From Student to Master

Great expectations is a good slogan for the exhibition of works by the members of the Association of Old Students of the Royal College of Art. The exhibition itself is remarkable for the intimations of greatness it displays, for it includes works by Poynter, J. J. Shannon, Henry Woods, Hubert Herkomer, and Havord Thomas, but with the exception of the latter's "Cassandra," there are few of importance. These are all dead artists who have already entered the ranks of the masters. Here and there among the thousand exhibits are fine works by living men: Derwent Wood's "Psyche," Alfred Gilbert's statuettes of Faith, Hope, and Charity, Richard Jack's "Covent Garden Market," Philip Connand's "Fancy Dress," all by men who have not only established themselves, but are regarded at home and abroad as representative of contemporary British art.

There are hundreds of names besides, all attached to beautiful paintings, drawings, sculpture, and craft-work, but how indicate them? How describe their output? In bulk it must be far larger than that of all the other schools of the country put together; in quality it conforms to the accepted and acceptable criterion of modern British art; modern with the whole traditions of oil painting, water-colour drawing, print-making, and modelling behind it. That is not to say that it has been behind in its acceptance of new, even of advanced views, but here are not to be found any examples of the experimental stage: cubism, vorticism, even expressionism are conspicuous by their absence. It is a complacent show.

There is no prevarication as to the idea of beauty inherent in the English school as here represented; no divergence from the principle of the source of beauty lying in the lap of Nature. There is an admirable trustfulness in Nature evinced here, and the gallery is full of proofs of the soundness of the idea. It is full too with the absence of thought; the show is not intellectual, but it is admirably intelligent: it is restful.

Here and there are some of the best works of those represented, and in no department is this more apparent than in that of decoration; not mural decoration as such, that is lamentably absent; not sculptural decoration for

architectural purposes, which is to seek, but painted panels of a decorative rather than of a pictorial character. Decoration of every description was, I think, the fundamental notion in establishing the National Art School; the propagation of the arts of design. It is satisfactory to find that this has not been entirely lost sight of by the Association of Old Students, but it is apparent that design has been overshadowed by pictorialism. It may be possible to remedy this in future exhibitions. I should like to suggest it.

Of the decorative works, not only in the form of painting, but in all the craft-forms here shown, there is a fine standard set. There is the President Alexander Fisher's admirable metal and enamel work, and examples no less admirable by other fine craftsmen and women in metal, enamel, ceramic (the remarkable "Ivanhoe" of Stanley Thorogood for instance), and in embroidery, but very little in the essential textiles, in stained glass, and scarcely anything at all in pure architecture. It is desirable that magnificent things in all these directions should be shown, rather than minor works in order that as many old students as possible shall be represented. What is wanted are the masterpieces of the exhibitions, not a mere perfunctory register of attendance.

It is to be hoped that the arrangement of the catalogue will be very much improved at the next exhibition; an index added, and the sections more clearly defined, and it is further devoutly to be hoped that the craft of printing and lettering will be recognized in its production. It is of no use having a national school of crafts, if no advantage is taken of its teaching when opportunity arises.

Etchings and Drypoints

There is a beautiful exhibition of the work of E. S. Lumsden at Messrs. P. and D. Colnaghi's galleries in Bond Street. There are ninety-one fine examples, including the results of the artist's visits to Spain, Canada, Japan, China, India, and Tibet since 1905, when he first began to work on copper, together with a series of engaging portraits of artists. Many of these are numbered from the chronological list, which appeared in "The Print Collectors' Quarterly" in 1921, the unnumbered ones dating from 1920. The mastery shown in this series of prints is undeniable.

KINETON PARKES.

R.I.B.A. Council Meeting

Appended are notes from the minutes of the last Council meeting of the R.I.B.A. :—

Shortage of Skilled Labour in the Building Trade.—The following members have been appointed to represent the R.I.B.A. on the proposed conference on the shortage of skilled labour in the building trades :—The President, the Hon. Secretary, Major Harry Barnes, Mr. Percy Thomas, Mr. T. R. Milburn, Mr. Herbert A. Welch, and Mr. G. Hastwell Grayson.

Grants.—The following annual grants have been made : The British Engineering Standards Association, £5; the British Non-Ferrous Metals Research Association, £15.

The Class of Students.—The R.I.B.A. Kalendar is to be issued in future to the students of the R.I.B.A.

Retired Fellowship.—The following members have been transferred to the class of retired Fellows : F. W. Tarring, James Jerman.

Reinstatement.—The following have been reinstated as members of the R.I.B.A. : T. A. Parker (A.), C. E. Tebbs (A.), H. G. Holt (A.).

The Tokyo Imperial University Library.—Mr. W. H. Ward, chairman of the Literature Standing Committee, has been appointed to represent the R.I.B.A. upon the committee which has been formed by the British Academy with the object of organizing (on the appeal of the Foreign Office) a gift of books to the library of the Tokyo Imperial University Library.

The R.I.B.A. Examinations, etc.

The intermediate examination, qualifying for registration as student R.I.B.A., was held in London from November 23 to 29, and in Leeds from November 23 to 28. Of the fifty-five candidates who presented themselves, twenty-eight passed, and twenty-seven were relegated. The successful candidates were as follows, the names being given in order of merit as placed by the examiners :—

Usher, W. (P. 1921), Chester-le-Street.
Collins, T. A. (P. 1922), Hale, near Altrincham.
Oldacre, W. B. (P. 1921), Stoke-on-Trent.
McMorran, D. H. (P. 1922), Harrow-on-the-Hill.
Jackman, F. L. (P. 1921), Clapham Common.
Howes, J. F. (P. 1921), Hertford.
Birkett, P. W. (P. 1922), Lincoln.
Tatum, R. (P. 1919), Cardiff.
Baker, J. B. (P. 1922), Finchley.
Baldry, W. C. (P. 1920), Nottingham.
Barter, A. K. (P. 1920), Oxford.
Bent, F. (P. 1917), Glan Conway, North Wales.
Dallas, Vera M. (P. 1920), Hampstead.

Dawkes, W. H. C. (P. 1920), Aber-gavenny.
Forward, M. H. (P. 1922), Scarborough.
Gissing, A. C. (P. 1920), Leeds.
Green, F. S. M. (P. 1920), Cricklewood.
Hatcher, B. A. (P. 1920), Ipswich.
Hunte, L. L. (P. 1920), Haverfordwest.
Laurie, W. K. (P. 1921), Reading.
Lloyd, S. H. F. (P. 1922), Edgbaston, Birmingham.
Lloyd, W. T. (P. 1919), Swansea.
Morgan, B. J. M. (P. 1921), Cheltenham.
Punchard, S. C. (P. 1920), Newcastle-upon-Tyne.
Roberts, A. H. (P. 1922), Wandsworth Common.
Roberts, D. H. P. (P. 1920), Bath.
Salt, G. W. (P. 1921), Birmingham.
Smith, H. H. (P. 1921), Southport.

The Final and Special.

The final and special examinations, qualifying for candidature as Associate, R.I.B.A., were held in London from December 6 to 13. Of the sixteen candidates admitted, eight passed, and the remaining eight were relegated. The successful candidates were as follows :—

Bath, H. R. H. (Special), Nairobi, Kenya Colony.
Button, E. H. (S. 1921), Clifton, Bristol.
Chitale, L. M. (Special), Bedford Square.
Fillmore, C. E. M. (S. 1922), West Bromwich.

Grant, J. D. (S. 1912), Ipswich.
Greenfield, T. (Special), Pulborough.
Knewstubb, F. W. (S. 1920), Penrith.
Powell, A. H. (Special), Reading.

Interpretation of Clause 2, R.I.B.A. (Alfred Bossom) Travelling Studentship.

The Board of Architectural Education issue the following : "The competitions will be confined to those students of the Recognised Schools of Architecture which enjoy exemption from the R.I.B.A. Final Examination, who after passing through the School Courses have attained the Associateship of the R.I.B.A."

The Board of Architectural Education have decided that for the purposes of the R.I.B.A. (Alfred Bossom) Travelling Studentship a minimum attendance of one Session full time work at a Recognised School shall be taken to constitute membership of that school.

R.I.B.A. (Archibald Dawney) Scholarships.

The jury for the R.I.B.A. (Archibald Dawney) scholarships, in response to a request by the Board of Architectural Education for a report with reference to the nature of the work to be submitted in competition for the scholarships by students in the third year of the school course, report that in making their awards preference is given to candidates whose work indicates that they have given such due prominence in their earlier studies to structural problems that in their final or third year work they are able to design their construction artistically in subjects which may involve structural problems, such as large span roofs, bold arching or vaulting, or steel, wood, reinforced concrete work of large dimensions.

Third-year designs, which are directed mainly to some artistic effect without regard to the difficulties of construction, durability or maintenance, and which are presented with a few standard details copied from a text-book, are not regarded as indicating the class of study which should be encouraged and extended by these scholarships.

The jury consider that the divorce of design from construction, which is evident from many of the drawings sent in—an attitude which they fear is not unusual in many of the schools—is detrimental to the objects of the R.I.B.A. (Archibald Dawney) scholarships.

Subjects should, therefore, be set to third-year students which are in idea constructional problems to be dealt with architecturally, in which the student would show his inventive and imaginative capacity by adapting standard details or the structural principles underlying such details to unusual conditions. This, while not requiring specialisation on the part of the pupil, would deprive him of the easy course of submitting sheets of drawings which are not much better than copies from text-books.

Sounds in Cathedrals

"Acoustics of Buildings" was the subject of a lecture by Mr. Hope Bagenal at King's College, at the Scientific Novelties Exhibition. It was common, the lecturer said, for a spoken syllable in a cathedral to last for five seconds, and an organ note to last for ten seconds. The rate of syllables in conversational speech was something like four a second, so that with a reverberation of some five seconds in a lively sermon in a cathedral, syllables assembled upon the ear twenty at a time. It was well known that new preachers in St. Paul's Cathedral were warned that their sermons must consist of only half the number of words that they would use in a parish church. The reverberation in St. Paul's Cathedral was such as practically to prevent rapid speech. We lived surrounded by mirrors of noise, and where we were not allowed a carpet to absorb sound we ought to consider the possibility of placing an equivalent somewhere else, on the walls or the ceiling. A cough in a modern hygienic classroom might be reflected backwards and forwards for as many as eighty times.

Canon Newbolt, in an interview, said he did not agree that new preachers in St. Paul's Cathedral must cut down the number of words spoken by one-half if they wish to be heard. The reverberations in the cathedral just now, he said, were very noticeable because of the scaffolding about, but there were always difficulties. When a new preacher came to the cathedral he was told to watch his speed and mind his consonants, but that was all. Canon Newbolt, who has preached in almost every one of the great cathedrals and churches of the country, recalled the difficulties of Hereford as extraordinary. At Hereford, he said, one could not speak straight down the nave, but must turn to the left and speak into a wall.

Coming Events

Wednesday, January 9.

Institution of Heating and Ventilating Engineers, at the Engineers' Club, Coventry Street, W.1.—Sessional Meeting and lecture by Mr. J. Kinsay, on "A New Universal Regulator for the Control of Temperature, Pressure, Humidity," etc. 7 p.m.

Thursday, January 10.

British Museum.—Lecture XIII: "Archaic Greece." By Miss Claire Gaudet. 4.30 p.m.

The Week's News

The Restoration of St. George's Chapel.

The restoration of St. George's Chapel, Windsor Castle, will take another three years to complete. Over £40,000 has been expended up to the present time.

Proposed Bristol Slum Clearance Scheme.

The Bristol City Council are considering a scheme to improve the St. James's area at an estimated cost of £23,520. The scheme includes the erection of three blocks of dwellings.

The Condition of the Middle Temple Hall Roof.

Following investigations by the custodians of Middle Temple Hall, in conjunction with Professor Lefroy, work is now proceeding on the restoration of the famous hammer-beam roof.

New Buildings for Paris.

Paris Municipal Council have voted 21 million francs (£265,000) to be applied to the demolition of houses considered to be unhealthy and the erection of new buildings conforming with modern ideas of hygiene.

Worthing Building Developments.

Building developments in Worthing continue at a brisk rate. During November plans for houses and other buildings, representing a total estimated constructional cost of over £27,000, were passed by the Council.

More Houses for Newton Abbot.

The Local Development Co., Ltd., who recently purchased the unbuilt-on portion of the Urban District Council's building site at Milber, have made arrangements for building 94 houses as the first instalment of their scheme.

A New Shop for Plymouth.

Messrs. Boots, Ltd., the chemists, have purchased for £25,000 the freehold premises at 18 George Street belonging to Messrs. Collier's Stores, Ltd. The shop, which occupies one of the finest business sites in the town, is to be reconstructed to provide departments for the sale of stationery and chemists' goods, a lending library, and probably a tea-room.

Proposed New Theatre and Ballroom for Colwyn Bay.

A number of Colwyn Bay residents have revived the question of erecting a modern theatre and ballroom in Greenfield Road. The scheme was abandoned some months ago owing to financial considerations. A committee has now been formed to consider the question in all its bearings.

Discoveries at Whitby Abbey.

At Whitby Abbey the latest excavation work of the Ancient Monuments Department of the Office of Works has revealed a maze of foundations of Saxon date. The preservation of the Abbey has been proceeding for the past three years, and among other recent discoveries were the apses of a former Norman abbey.

A New Housing Order.

The Ministry of Health have issued a new Order, cited as "The Housing Acts (Form of Orders and Notices) Order, 1923," prescribing the forms in which certain notices and other documents are to be used by local authorities in connection with housing. Copies may be obtained, price 2d. net, from H.M. Stationery Office.

The Restoration of Westminster Abbey.

During the last three years the work of restoration in Westminster Abbey, in connection with which a fund of nearly £40,000 was raised, has included the east end of the Henry VII. Chapel. The stones have been treated with a preservative, so that the entire surface appears as one piece. Some of the old stones have been replaced by new ones.

Bangor College Extensions.

Work on the new science buildings of the University College, Bangor, estimated to cost £70,000, will start shortly. The Prince of Wales laid the foundation stone during his visit to Bangor in November. It is hoped to provide, among other things, one of the most completely equipped agricultural chemistry research departments in the kingdom.

London's New Theatres.

London's latest theatre, the Fortune, which faces Drury Lane Theatre, is nearly completed. It is the first of three

such buildings for London, and has been built at a cost of £120,000 by Mr. Lawrence Cowen, the playwright. Mr. E. Schaeferberg is the architect. The sites for the other two new theatres are both in the heart of the West End. The building of the second theatre, the Hope, will begin next month.

Lord and Lady Cowdray's Gift to Aberdeen.

Intimation of Lord and Lady Cowdray's intention to give £20,000 for the proposed Cowdray Hall and Art Museum was given at the meeting of the Aberdeen Town Council. Work has now been commenced on the scheme, which includes the extension of the gallery and the provision of a war memorial court costing in all about £60,000.

New Kensington Stores.

Work is to begin immediately on new stores for Messrs. John Barker in Kensington High Street, opposite the present stores on the south side of the road. The new building will occupy the vacant site next to Barker's furnishing department on the north side. Sir Reginald Blomfield, R.A., has designed the building, which will be about 200 feet square. The sum of £500,000 has been mentioned as the cost of the new building.

The New Tay Bridge.

There is great interest in engineering circles anent the coming construction of the new Tay Bridge. Apparently some half a dozen leading engineers are "in the running" for the preparation of plans and supervision of construction. But the final choice will rest with the Administration. Presumably the Ministry of Transport will have a voice in the selection of the design.

A Yorkshire Local Authority and Hutments.

Over 100 hutment owners on the sea front at Aldbrough, Yorkshire, are to receive notices from the local rural authority to show cause why their wooden buildings should not be pulled down. The huts do not comply with even the relaxed building by-laws, and have been erected without the consent of the local authority. The hutments have been so popular that a big increase in the number was contemplated.

The late M. Alexandre G. Eiffel.

The man who built the famous Eiffel Tower, M. Alexandre Gustave Eiffel, died in Paris at the age of ninety-one. In addition to the tower named after him, M. Eiffel built a bridge over the Douro and the viaduct of Garabit Cantal, and constructed steel frame churches, markets, gasworks and railway stations in other countries. M. Eiffel, who was born at Dijon in 1832, began his career as a railway engineer.

A Southwark Church Site Sold.

The site of St. Olave's Church, Duke Street, London Bridge, has been sold for about £10,000. An Act of Parliament provides that the burial ground fronting the river, which is ultimately to be used as an open space, shall be cleared, and the bodies now resting there buried elsewhere at the cost of the trustees. The site of the church will be used for building a warehouse, but the stone tower will be retained as an archway to the recreation ground.

Coast Erosion at Southsea.

For some time past the sea has been encroaching on the beach at Southsea. The whole front is more or less affected, but in some places the damage is so considerable that special measures have become necessary to check it. The matter was discussed by the committee which has charge of the beach, and as a result it was decided to recommend the Portsmouth Town Council to carry out works of an experimental nature to prevent further encroachment, and also to interview the Government authorities on the matter.

Joint Town-Planning Scheme for North Derbyshire.

A joint town-planning scheme for the whole of North Derbyshire was agreed upon at a conference of local authorities, held at Chesterfield under the chairmanship of Mr. G. L. Pepler, of the Ministry of Health. A joint committee was formed of representatives of the Chesterfield Corporation, the Urban District Councils of Bolsover, Brampton and Walton, Clay Cross and Dronfield, and the Rural District Councils of Chesterfield, Clowne, and Norton. The object will be to prepare a regional town plan, linking up the various district schemes.

(Continued on page 136.)

The Week's News—continued.

The late Mr. F. J. Dove.

We regret to record the death of Mr. Frederick John Dove, governing director of Dove Brothers, Islington. The last survivor of the four founders of the London Master Builders' Association, he was president for three years, and was also concerned in the foundation of the Institute of Builders, of which he served the office of president. He was one of the first directors and vice-president of the Builders' Accident Mutual Insurance Company, a past president of the Builders' Benevolent Institution, and a past master of the Tylers' and Bricklayers' Company.

The Menai Suspension Bridge.

The proposal of the Ministry of Transport to replace Stephenson's suspension bridge over Menai Straits by a reinforced concrete bridge was considered by the County Councils of Carnarvonshire and Anglesey. The existing bridge shows increased signs of fatigue and decay. It is proposed to substitute an arch for the present suspension portion. The Government will bear the expense conditionally on a share of the cost of its future maintenance being borne by the two counties. General approval was accorded to the proposal subject to certain guarantees being given by the Government.

Wrexham Town-Planning Scheme.

The Wrexham town-planning scheme, prepared by Professor Abercrombie, has been modified. The original proposals raised a storm of protests from property-owners and tradesmen, and as a result the suggested alternative to the narrow streets and congested areas in the main thoroughfares of the town were dropped. Now, as the result of an interview between officials of the Ministry of Health and the chairman of the Wrexham Town Planning Committee, Professor P. Abercrombie, the Borough Surveyor, and the Town Clerk, the scheme has been still further curtailed by omitting the following from the proposals:—Suggested new street from Rhosddu to the Great Western Railway Station and proposed new street from Fairy Road to Belgrave Road. Professor Abercrombie has been asked to prepare a layout of land near the Great Western Railway Station, while a sub-committee has been appointed to consider further the layout of land at the rear of the Wynnstay Arms Hotel, and to consider the question of the provision of open spaces, etc., to replace lands proposed to be taken from existing open spaces for additions to public highways.

Better Business in 1924: How to Ensure It

Mr. W. S. Crawford, in a letter to the "Daily Mail," says: Good resolutions are the fashion on New Year's Day, and there is one resolution which, if taken and kept by our men of business and industry, will do more than anything else to remove unemployment and rehabilitate our shrunken national fortunes.

The opportunity is waiting. The circumstances are right. All that is wanting is the necessary determination and resolution. It might be worded as follows:—

"In this year 1924 I will make every effort to increase my business—to produce more and to sell more. I will regard the post-war dog-days of bad business as ended and the turn of the tide as having arrived. I will search my business organization through and see at what point, or points, it can possibly be improved to enable it the better to face and to overcome its difficulties—whether they be due to competition or to shrunken purchasing power. I will produce a more business-compelling type of goods, adapted to markets not only in price but also in form and kind. I will key up my sales and advertising organization to create an outlet for those goods, to reawaken old markets and to find new. I will cease complaining of competition, and compete; will cease looking to the State for help and will rely on self-help."

With a rebirth of this old combative spirit in British industry we can make 1924 a bumper year for British trade, and set right many evils, social and material.

Without it we are still in the doldrums, drifting slowly towards national penury and the status of a second-rate nation.

Trade and Craft

The B.R.C. Film.

The British Reinforced Concrete Engineering Co., Ltd., showed their film on "B.R.C. Roads," at the Empire Theatre, Grays, and the Palace Theatre, Tilbury, during the week ending December 22. In view of the reinforced concrete road work at present being undertaken by Mr. S. A. Hill-Willis, the Surveyor to the Tilbury Urban District Council, great interest was taken in the film.

Messrs. Simplex Conduits, Ltd.

The following changes have been made in the personnel of Messrs. Simplex Conduits, Ltd.: Mr. J. McLellan (Manchester Branch Manager) to be Sales Superintendent of the Northern area, which embraces the branch districts controlled from Newcastle, Middlesbrough, Manchester, Leeds, Liverpool, and Sheffield; Mr. J. Huntington (South-west of England Manager) to be Midland Sales Superintendent, the territory being Bristol, Cardiff, Swansea, Nottingham, Midland and Birmingham districts. In consequence of the above, the following changes have been made: Mr. J. Entwistle (Newcastle), transferred to Manchester as Manager of that branch; Mr. H. D. W. Earnshaw, succeeds Mr. Entwistle as Manager of the Newcastle branch; and Mr. S. G. Orchard, succeeds Mr. Huntington as Manager of the Bristol branch.

The Use of Gas on the Great Western Railway.

The Great Western Railway is a very large consumer of gas for providing light and power and heat for heat-treatment processes in its gigantic Locomotive, Carriage and Wagon Department at Swindon. For the illumination of the works, thousands of inverted incandescent gas lamps have been installed; for generating electricity, numerous gas engines provide the necessary power; and for many of the heat-treatment operations involved in the production of the rolling stock of the railway, gas is extensively used. Interesting particulars and photographs taken in these works are contained in the current issue (No. 118) of "A Thousand and One Uses for Gas," which can be obtained from the British Commercial Gas Association, 30 Grosvenor Gardens, S.W.1.

New Inventions

Latest Patent Applications.

- 32056.—Higgs and Hill, Ltd.—Hangar for centring scaffolds, &c. December 21.
- 31839.—Marchetti, R., and Robinson, E. Y.—Concrete partition slab. December 19.
- 32054.—Smith, H. F.—Manufacture of hollow concrete building blocks, &c. December 21.
- 31817.—Tayler, W. S.—Building blocks, December 19.

Specifications Published.

- 207864.—Thomson, R.—Walling.
- 207893.—Rogers, R. G., and Perry, T.—Concrete roofs, partition and like structures.
- 207915.—Hall, J. M.—Moulds for and method of moulding reinforced concrete building slabs.
- 208022.—Kohler, W. C.—Hollow sheet piles of reinforced metal or the like.
- 195629.—Schlinder, W.—Builders' hoisting devices.

Abstract Published.

- 206379.—Chimneys.—Monolithic and General Constructions, Ltd., 7 Princes Street, London, and Hamilton, F. B., 14 Broad Street, Marine Parade, Brighton, Sussex.—In a factory or like chimney, of the kind having an inner liner separated from the outer wall by an air space, the joints between the liner sections are formed to provide a continuous air space and comprise a layer of whole headers and half stretchers arranged alternately, the former bridging the air space and being disposed with their inner ends flush with the inner surface of the lower liner. The outer ends of the headers are arranged to rest on a ledge, formed by a reduction in thickness of the outer wall so that a space is left between them and the outer wall. Above the layer of whole headers and half stretchers is laid a course of transverse headers upon which the next liner section, consisting of courses of longitudinally arranged bricks, is built.

The above particulars are specially prepared by Messrs. Rayner & Co., registered patent agents, of 5 Chancery Lane, London, W.C.2, from whom readers of the JOURNAL may obtain all information free on matters relating to patents, trade marks, and designs. Messrs. Rayner & Co. will obtain printed copies of the published specifications and abstract only, and forward on post free for the price of 1/6 each.

The Largest "Skyscraper"

Plans have been completed for the erection of a thirty-five story office building in New York. The building will have 250,000 sq. ft. more of floor space than the Equitable building, and so will be the largest structure of its kind in the world.

North Wales University Science Buildings, Bangor

We understand from Mr. Alan Munby that the announcement made some weeks ago in the public Press as to the contractors for the above work, now requires correction. The tenders were submitted to the North Wales Heroes Memorial Council, when the lowest, that of Messrs. Trollope and Colls, was accepted by formal resolution as was reported, but before formalities could be completed Messrs. Trollope and Colls withdrew and the work has now been placed in the hands of Messrs. John Laing and Sons, of Carlisle.

New Model Housing Forms

With regard to the concluding sentence of paragraph 13 of the circular addressed to local authorities on August 14 last (Circular 388a), the following model forms have been prepared by the Ministry of Health for the guidance of local authorities, and are now available: (1) Model form of mortgage to secure advances made by a local authority under section 5 (1) (a) (i) of the Housing, etc., Act, 1923. (Hsg. 50.) (2) Model form of contract for sale by a local authority of land acquired for the purposes of the Housing Acts, the purchaser undertaking to erect a house and the local authority to pay a lump sum grant. (Hsg. 51.) (3) Model form of agreement for building lease, the local authority paying a lump sum grant of an amount equivalent to the premium. (Hsg. 52.) These forms may be purchased (Hsg. 50 and 51, price 2d. net each; and Hsg. 52, price 3d. net) through any bookseller, or directly from H.M. Stationery Office.

Atmospheric Corrosion of Metals

A considerable advance in our knowledge of the phenomena of tarnishing, which forms the first apparent stage in the corrosion of metals, has been achieved by Mr. W. H. J. Vernon. His recent paper, read before the Faraday Society in London, is a report on work carried out for the British Non-Ferrous Metals Research Association. The object of the investigation has been to study the relative behaviour of different metals when exposed to atmospheric influences both indoors and outside.

Very briefly the results so far achieved may be indicated in the following, but since the paper contains a mass of detailed observations, the original must be consulted by those desirous of following the full significance of the research.

In the first place the enormously greater attack of iron than of other metals is brought out, and although this side of the subject is only incidentally touched upon, its practical value to all who have to select materials for domestic or constructional purposes is obvious.

The detailed study has brought out for the first time the marked difference in the mechanism of corrosion with different metals. This discovery promises to prove of the greatest importance both from a practical point of view as well as in leading to a further elucidation of the whole question of corrosion.

Three different types of tarnishing have been distinguished. In the first type, represented by copper, the tarnish film actually protects the metal from further attack, the progress of tarnishing becoming slower and slower as exposure proceeds. This is accounted for by the supposed continuous layer which the tarnish film forms and the consequent difficulty the corroding constituents of the air find in reaching the underlying metal.

In a second type the tarnish is neutral and the attack proceeds steadily—for instance, zinc in a dry atmosphere—in this case it is probable that the film is pervious to the air. Finally the corrosion, whilst starting off fairly slowly, may become accelerated, and this forms the third type, exemplified by iron; it is suggested that here the corrosion product—rust—assists in the attack.

Some metals, such as zinc, brass, etc., may follow more than one type of progress, according to the atmospheric conditions or even to the thickness of the tarnish film. For instance, with brass the attack first proceeds uniformly, but later the film exhibits a protective influence and the attack slows off.

Then the author has investigated other apparently quite distinct types of film which form upon certain metals when exposed to the air. Nickel and some of its alloys at first seem not to tarnish at all, but rather to condense or produce on the surface a fog or cloudiness, which can be readily removed by simple washing with alcohol, restoring the bright metallic surface underneath.

The discussion on the paper helped to emphasize the importance of a detailed laboratory study of the tarnish films themselves. Reflectivity measurements have already been applied by Mr. Vernon to determine quantitatively the progress of tarnishing. The future seems to demand a greater knowledge of the constitution and life-history both of the friendly and of the enemy films and it is to be hoped that the British Non-Ferrous Metals Research Association will be able to mobilize the interest and support of the large body of manufacturers and users so that this can be done and that exposure tests under widely different climate conditions can also be continued.

List of Competitions Open

Date of Delivery.	COMPETITION.
Jan. 20	A premium of 20 guineas is offered for the best design of a lodge, main entrance gates, and railing abutting upon the main county road. In the design of the entrance gates, the words "Talbot Memorial Park" are to be worked in distinctly and prominently. Apply Mr. Moses Thomas, Town Clerk, Port Talbot.
Feb. 1	Proposed Concert Hall and Public Baths for Newcastle-upon-Tyne. Premiums £750, £250, and £100 respectively are offered, the first premium to merge into the commission or other payment to be made to the author of the successful design. Assessor, Mr. Alfred W. S. Cross, M.A. Apply, with deposit of £2 2s., to Mr. A. M. Oliver, Town Clerk, Town Hall, Newcastle-upon-Tyne.
Feb. 14	Proposed New Cottage Hospital for Durham. The Holmside and South Moor Collieries Welfare Scheme Committee invite designs for a new cottage hospital, and premiums of £75, £50, and £25 respectively are offered. Mr. T. R. Milburn, F.R.I.B.A., is the assessor. Apply not later than December 26. Joint Secretaries, Welfare Scheme Committee, South Moor Colliery Co., Ltd., South Moor, Stanley, S.O., Co. Durham.
Feb. 29	Architects practising in the West Riding of Yorkshire are invited to submit designs for the City of Leeds Branch Public Libraries, Cardigan Road, Burley, and Hough Lane, Bramley. Premiums, £35, £20, and £15. Assessor, Mr. Percy S. Worthington, M.A., Litt.D., F.R.I.B.A. Apply Mr. Robert E. Fox, Town Clerk, 26 Great George Street, Leeds, with deposit of one guinea.
April	A competition has been promoted by the Canadian Government for designs for a full-length statue of the late Sir Wilfrid Laurier to be erected in the grounds of the Parliament Buildings, Ottawa. The winner will be commissioned to carry out the work. Second premium, \$1,000. Apply the Secretary, Public Works Department, Room 784, Hunter Buildings, Ottawa.
April 26	At the instance of the British Drama League the proprietors of "Country Life" have promoted a competition for designs for a national theatre. The proprietors of that journal will bear the cost of building a complete large-scale model of the first prize design, to be shown at the British Empire Exhibition. Jury of Award: Mr. J. Alfred Gotch, President R.I.B.A.; Sir Edwin Lutyens, R.A., F.R.I.B.A.; Sir Lawrence Weaver, K.B.E., F.S.A.; Professor C. H. Reilly, F.R.I.B.A.; Professor Hubert Worthington, A.R.I.B.A.; Mr. Harley Granville-Barker; Mr. Albert Rutherston. Mr. Geoffrey Whitworth, Hon. Secretary. First prize, £250; second prize, £100; for the best model sent in with a design, £25; for the best perspective view of the interior of the larger auditorium, £25. Designs are invited from architects, or architects associated with decorative designers, of either sex, who must be British born or of British parentage. The work of such architects resident in the British Dominions will be especially welcomed. Apply Editor, "Country Life," 20 Tavistock Street, Covent Garden, London, W.C.2.
No Date	The Hereford Town Council invite designs for the proposed reconstruction of the Market Hall and adjoining premises. Premium £100 for the best design as adjudged by a competent member of the R.I.B.A. Apply, with deposit of £2 2s., to Mr. Robert Battersby, Town Clerk, Town Hall, Hereford.

Rates of Wages in the Building Trades⁺

The following table shows the revised rates of wages for craftsmen (bricklayers, masons, carpenters and joiners, woodcutting machinists, slaters, plumbers, plasterers and painters) and labourers in the building trade. The labour rates for London are given in the Table of Current Prices published on pages xvii, xviii.

Grade.			Grade.			Grade.		
Craftsmen.		Labourers.	Craftsmen.		Labourers.	Craftsmen.		Labourers.
s.	d.	s. d.	s.	d.	s. d.	s.	d.	s. d.
A	1 7	1 2½	B	1 5	1 0½	C	1 3½	1 1½
A1	1 6½	1 2	B1	1 4½	1 0½	C1	1 3	1 1½
A2	1 6	1 1½	B2	1 4	1 0	C2	1 2½	1 1
A3	1 5½	1 1¼	B3	1 3½	11½			

Grading of Towns.

The towns in which the above grade rates have been reported to apply are shown below, divided into their main area groups. The principal exceptions are indicated in the notes appended to each Group. In towns marked* the rate for painters is 1d. less than that paid to other craftsmen, and in those marked† it is ½d. less than the craftsmen's rate.

NORTH-EAST COAST:—

Grade A.—Alnwick, Annfield Plain, Birtley, Bishop Auckland, Blackhill, Blyth, Chester-le-Street, Consett, Darlington, Durham, Elchester, Gateshead, Hartlepool, Hebburn, Hexham, Jarrow, Lancaster, Leadgate, Medomsley, Middlesbrough, Morpeth, Newcastle, North and South Shields, Seaham Harbour, Stanley, Stockton, Sunderland, Thornaby, Tynemouth, Wallsend, Whitburn, and Whitley Bay

YORKSHIRE:—

Grade A.—Alltofts, Barmley, Batley, Bingley, Birstall, Bradford, Brighouse, Calder Valley, Castleford, Cleckheaton, Cleethorpes, Colne Valley, Crosshills, Dewsbury, Doncaster, Gomersal, Grimsby, Guiseley, Halifax, Harrogate, Hebden Bridge, Heckmondwike, Holmfirth, Horbury, Hoyland, Huddersfield, Hull, Ilkley, Immingham, Keighley, Knottingley, Leeds, Liversedge, Mexborough, Mirfield, Morley, Normanton, Ossett, Penistone, Pontefract, Pudsey, Rawdon, Rotherham, Scunthorpe, Selby, Sheffield, Shipley, Sowerby Bridge, Stockbridge, Wakefield, Wombwell, and Yeadon. **Grade A3.**—Barnoldswick, Beverley, Bridlington, Goole, Hormsa, Scarborough, Skipton, Worsop, and York. **Grade B3.**—Kirby Moorside, Malton, Northallerton, Norton, and Wetherby. York, craftsmen 1s. 6½d., labourers 1s. 2d.

NORTH-WESTERN COUNTIES:—

Grade A.—Accrington, Addington, Alderley Edge, Altrincham, Ashton-under-Lyne, Atherton, Bacup, Barrow, Birkdale, Bispham, Blackburn, Blackpool, Blackrod, Bolton, Broughton (Flints), Burnley, Bury, Carlisle, Chester, Chorley, Cleveleys, Clitheroe, Colne, Connahs Quay, Dalton-in-Furness, Darwen, Denton, Droylsden, Eccles, Farnworth, Fleetwood, Frodsham, Glossop, Great Harwood, Haslingden, Hawarden, Helsby, Heywood, Higher Kinnerton, Horwich, Hyde, Kirkham, Leigh, Leyland, Littleborough, Longridge, Lynton, Lytham, Manchester, Middleton, Mossley, Nelson, Ormskirk, Oswaldtwistle, Oldham, Padham, Pendlebury, Poulton, Preston, Prestwich, Queensberry, Radcliffe, Ramsbottom, Rawtenstall, Rishton, Rochdale, Runcorn, St. Annes-on-the-Sea, St. Helens, Salford, Salford, Shaw, Shotton, Southport, Stalybridge, Stockport, Swinton, Thornton, T. Morden, Tyldesley, Walkden, Warrington, Westhoughton, Whalley, Whitefield, Widnes, Wigan, and Wilmslow. **Grade A2.**—Lancaster and Morecambe. **Grade A3.**—Askam, Broughton-in-Furness, Buxton, Cleator Moor, Conington, Coniston, Crewe, Distington, Egremont, Grange-over Sands, Harrington, Knutsford, Macclesfield, Maryport, Market Drayton, Middlewich, Millom, Mold, Nantwich, New Mills, Northwich, Sandbach, Tarporley, Ulverston, Winsford and Over, Whitehaven, Workington, and Wrexham. **Grade B1.**—Colwyn Bay, Conway, Holywell, Llandudno, Llandudno Junction, Mostyn, Prestatyn, Rhos and Rhyl. **Grade B2.**—Bala, Cockerham, Kendal, and Penrith. **Grade B3.**—Ambleside, Bangor, Bowness-on-Windermere, Carnarvon, Grasmere, Holyhead, Langdale, and Windermere. Liverpool and Birkenhead districts 1s. 9d. for plumbers, 1s. 8½d. for other craftsmen, and 1s. 4d. for labourers.

MIDLAND COUNTIES:—

Grade A.—Alfreton, Belper, Bilston, Birmingham, Blackheath, Burslem, Chesterfield, Coalville, Coventry, Derby, Hanley, Heanor, Hinckley, Ilkeston, Kenilworth, Leicester, Lincoln, Long Eaton, Loughborough, Mansfield, Newcastle-under-Lyme, Nottingham, Ripley, Stoke-on-Trent, Sutton Coldfield, Sutton-in-Ashfield, West Bromwich, Willenhall, and Wolverhampton. **Grade A3.**—Atherstone, Bewdley, Boston, Brierley Hill, Bromsgrove, Burton-on-Trent, Cannock, Cosley, Darlaston, Dudley, Gainsborough, Gornal, Grantham, Halesowen, Hednesford, Kidderminster, Knowle, Leamington, Leek, Lichfield, Louth, Malvern, Market Harborough, Matlock, Motton Mowbray, Newark, Northampton, Oakengates, Old Hill, Peterborough, Redditch, Rossford, Rugby, Rugeley, Sedgley, Shenal, Skegness, Slough, Solihull, Stafford, Stamford, Stourport, Stratford-on-Avon, Swadincote, Walsall, Warwick, Wednesbury, Wellington, and Worcester. **Grade B1.**—Kettering and Wellingborough. **Grade B2.**—Ashbourne, Bridgworth, Homecote, Oakham, Oundle, Raunds, Rushden, Spalding, Thrapston, Uttoxeter, and Wixworth. **Grade C.**—Buckden, Eaton Socon, Huntingdon, St. Ives, and St. Neots. Market Harborough, craftsmen 1s. 5d., labourers 1s. 0½d. For plumbers in the Potteries district and at Stratford the rate is 1s. 9d. The rate for plumbers at Chesterfield is 1s. 8d. Rugby, craftsmen 1s. 6d., labourers 1s. 1½d.

EASTERN COUNTIES:—

Grade B1.—St. Albans, Southend-on-Sea, and Westcliff. **Grade B2.**—Norwich. **Grade B3.**—Baldock, Bedford, Berkhamsted, Biggleswade, Braintree, Cambridge, Chelmsford, Chesham, Hitchin, Huddersdon, Ingatesdon, Ipswich, Letchworth, Luton, Norwich, Ongar, Sawbridge, Stevenage, Stotfold, Ware, and Welwyn. **Grade C.**—Aldeburgh, Attleborough, Aylham, Braughing, Clacton, Cromer, Dovercourt, Dunstable, Ely, Fakenham, Felixstowe, Frinton, Gorleston, Halesworth, Harwich, Hunstanton, King's Lynn, Leighton Buzzard, Leiston, Lowestoft, March, Much Hadham, Newmarket, Puckeridge, Renthem, Saxmundham, Southwold, Standon, Stowmarket, Walton-on-the-Naze, Wickham Market, Wisbech, Woodbridge, Wymondham, and Yarmouth. **Grade C2.**—Bungay, Coltishall, East Dereham, Hadleigh, Haverhill,* Royston. St. Albans, craftsmen 1s. 3½d., labourers 1s. 1½d. Bridlington and Scarborough, craftsmen 1s. 6d., labourers 1s. 1½d. Colchester, Dovercourt, Felixstowe, Gorleston, Harwich, Lowestoft, Newmarket and Yarmouth, craftsmen 1s. 4d., labourers 1s. Norwich, craftsmen 1s. 4½d., labourers 1s. 0½d. Saxmundham and District (including Aldeburgh, Halesworth, Leiston, Wickham Market and Woodbridge), and Wymondham, craftsmen 1s. 3d., labourers 1s. 1½d. Certain other districts in the Eastern Counties, including Bedford, Cambridge, Chelmsford and District (including Braintree, Halstead, Ingatesdon and Ongar), Clacton, Frinton and Walton, Harpenden, Hatfield, Hemel Hempstead, Hertford and Ware, Hitchin, Huddersdon, Ipswich, Letchworth, Luton, Stevenage and Baldock, craftsmen 1s. 4½d., labourers 1s. 0½d.

SOUTHERN COUNTIES:—

Grade B.—Leatherhead.† **Grade B1.**—Gosport, Portsmouth, and Southampton. **Grade B2.**—Bournemouth, Brighton (see below), Christchurch, Eastbourne, Fareham, Hove, Poole, Reading, and Tisbury. **Grade B3.**—Abingdon, Addlestone, Amersham, Ascot, Ashford (Middlesex), Beaconsfield, Bracknell, Byfleet, Chesham, Cremona, Egham, Eton, Gerrard's Cross, Goring, Gravesend, Guildford, Henley, Laleham, Maidenhead, Marlow, Northfleet, Oxford, Staines, Stanwell, Sunningdale, Sunninghill, Tooting, Twickenham, Windsor, Woking, Wokingham, and Wycombe. **Grade C.**—Arundel, Ashford (Kent), Aylesbury, Bagshot, Banbury, Basingstoke, Bicester, Blechley, Bognor, Bosham, Brockenhurst, Camberley, Canterbury, Chatham, Chichester, Chipping Norton, Deal, Dorking, Dover, Fareham, Farnington, Faversham, Fenny Stratford, Folkestone, Gillingham, Godalming, Hailsham, Haslemere, Hastings, Herne Bay, Hythe, Lambourn, Liphook, Littlehampton, Lynton, Maidstone, Margate, Milford, Milton Regis, Newbury, New Milton, Newport Pagnell, Pangbourne, Petworth, Ramsgate, Rochester, Sandgate, St. Leonards, Sevenoaks, Sittingbourne, Strood, Stony Stratford, Thame, Walmer, Wantage, Wendover, Westgate, Whitstable, Winchester, Winslow, Witney, Wolverton, and Worthing. **Grade C2.**—Alton,* Andover, craftsmen 1s. 3d., labourers 1s. 1½d. Bournemouth, Poole and Christchurch, craftsmen 1s. 4½d., labourers 1s. 0½d. Camberley, Godalming, Grayshott and Haslemere, craftsmen 1s. 4d., labourers 1s. Guildford and Woking, craftsmen 1s. 4½d., labourers 1s. 0½d. Tonbridge and Tunbridge Wells, craftsmen 1s. 4½d., labourers 1s. 0½d. Brighton and Hove and Eastbourne, 1s. 4½d. for tradesmen and 1s. 0½d. for labourers. Gravesend, Northfleet and District, craftsmen 1s. 5½d., labourers 1s. 1½d. Abingdon, Eton, Oxford, Slough, and Windsor, craftsmen 1s. 4½d., labourers 1s. 0½d. Dorking, craftsmen 1s. 4½d., labourers 1s. 0½d. Reading, craftsmen 1s. 4½d., labourers 1s. 0½d. Weybridge and Cobham, craftsmen 1s. 5½d., labourers 1s. 1½d. Various Districts covered by the Southern Counties Regional Joint Council, viz., Amersham, Ascot, Bracknell, Chatham, Gillingham, Rochester and Strood, Chesham, Egham, Henley, Littlehampton, Maidenhead, Marlow, Staines, Wallingford, Winchester, Wokingham, and Worthing, craftsmen 1s. 4d., labourers 1s. 0d. Leatherhead and Ashted, painters 1s. 5d., other craftsmen 1s. 5½d., labourers 1s. 1½d. Maidstone, craftsmen 1s. 4d., labourers 1s. Redhill and Reigate, craftsmen 1s. 4½d., labourers 1s. 0½d.

SOUTH-WESTERN COUNTIES:—

Grade A.—Bristol. **Grade A2.**—Keynsham. **Grade B.**—Plymouth* and Devonport.* **Grade B2.**—Bath, Cheltenham, Gloucester,* Hereford,* Swindon,* and Tewkesbury.* **Grade B3.**—Exeter, Newton Abbot, Portishead, Stroud† and Taunton. **Grade C1.**—Barnstaple, Bradford-on-Avon* Bridgwater, Brixham, Bruton, Burnham-on-Sea, Calne,* Castle Cary, Cheddar,* Cirencester,* Coleford,* Corsham,* Crewkerne,* Dawlish, Dorchester,* Exmouth, Fairford,* Frome,* Glastonbury, Lydney,* Melksham,* Midsomer Norton, Minehead,* Radstock, Shepton Mallet, Street, Tetbury,* Thornbury, Totnes,* Trowbridge,* Wells, Westbury,* Weston-super-Mare, Weymouth,* and Yeovil.* Weston-super-Mare, craftsmen 1s. 4d., labourers 1s. Plymouth, Devonport and Stonehouse, painters 1s. 5½d., other tradesmen 1s. 6d., labourers 1s. 1½d. Newton Abbot and Paignton, Torquay, craftsmen 1s. 4½d., labourers 1s. 0½d. Barnstaple, Cleveon and Exmouth, craftsmen 1s. 3½d., labourers 1s. 1½d. Exeter, painters 1s. 3½d., other craftsmen 1s. 4½d., labourers 1s. 0½d.

SOUTH WALES AND MONMOUTHSHIRE:—

Grade A.—Aberavon, Aberdare, Abertillery, Ammanford, Barry, Bridgend, Briton Ferry, Brynmawr, Cardiff, Chepstow, Duffryn Valley, Ebbw Vale, East Glamorgan, Glamorgan and Monmouthshire Valleys, Garw Valley, Gorseinon, Llanelly, Maesteg, Merthyr, Mountain Ash, Neath, Newport, Ogmore Vale, Pontardawe, Pontardulais, Pontypool, Pontypridd, Porthcawl, Port Talbot, Rhondda and Rhymney Valleys, Sirhowy Valley, Swansea, and Tredegar. **Grade A2.**—Abergavenny. **Grade B.**—Brecon, Carmarthen, Llandilo and Llandrindod Wells. **Grade B2.**—Fishguard, Hay, Monmouth, and Talgarth.

SCOTLAND:—

Grade A.—Airdrie, Alloa, Alva, Armadale, Ayr, Bathgate, Bellshill, Bridge of Weir, Buckhaven, Burntisland, Clydebank, Coatbridge, Dumbarton, Dundee, Dunfermline, Edinburgh, Falkirk, Glasgow, Gourcock, Grangemouth, Greenock, Haddington, Hamilton, Harthill, Irvine, Kennoway, Kilmarnock, Kirkcaldy, Larbert, Largs, Leith, Leslie, Leven, Markinch, Methil, Motherwell, Neilston, Newmans, Paisley, Pencaitland, Perth, Port Glasgow, Renfrew, Stenhousemuir, Uddingston, Uphall, Wemyss, Whitburn, Windygates, and Wishaw. **Grade A2.**—Arbroath, Montrose, and Peebles. **Grade B.**—Dumfries, Galashiels, Hawick, and Maxwelltown. Aberdeen, joiners 1s. 6d. Dumfries and Galloway, plumbers 1s. 5d.

[NOTE.—The rates quoted do not apply to plasterers and painters in Scotland, who are not affiliated to the National Wages and Conditions Council. The rate for labourers at Leslie, Markinch, and Perth is reported as 1s. 2d., and at Arbroath, Bathgate, Irvine, and Montrose 1s. 1d. Aberdeen, and Dundee and District, plumbers 1s. 7d. Aberdeen, Joiners 1s. 7d.]

