THE

ARCHITECTS'



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During the last few years a great deal of good building has grown up on the Hampstead heights, both in the older and newer parts of the district. Mr.W. Harding Thompson will describe a representative collection of this work in two special articles, the first of which will appear in our issue for Wednesday next.

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CHRISTIAN BARMAN, Editor

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

The Index to Advertisers will be found on page iv.



RENDERINGS OF ARCHITECTURE Selected and annotated by Dr. Tancred Borenius.

xvii. Giovanni Battista Piranesi (1720-1778). Architectural Cappriccio.

While Piranesi's etchings—his "Antichità Romane," "Vedute di Roma," "Carceri," etc.—have long been widely known and appreciated, his drawings have perhaps attracted less attention than they deserve. They exist in fair, but not overwhelming, numbers. The drawing (in red chalk, pen, and sepia with wash) here reproduced is a very characteristic example of his complicated arrangements of big flights of steps, arches, and columns, ingeniously devising to obtain for the spectator glimpses which penetrate far into the background. The methods employed by him bear some resemblance to those of Giuseppe Bibbiena, and there can be little doubt but that Piranesi was strongly influenced by the latter. But he puts these methods to an entirely individual use, and displays a very personal characteristic in the archaeological note which is always very much accentuated in Piranesi, but entirely foreign to Bibbiena.—[British Museum.]



Wednesday, April 28, 1926

ARCHITECTS AND THE R. I. B. A.

THE R.I.B.A. has recently issued a statement to its members reviewing the situation since the completion of the unification scheme, and urging upon all those joining the profession to become members of the Institute. The need for this is surely patent to all, and yet there is quite a number of young architects who have not taken up membership and, we fancy, there are men entering the profession who do not intend to do so. Any attempt at canvassing is generally countered by a statement of opinion that membership would be of little use. The public, for the most part, attach but slight importance to the letters which members may place after their names, and the Institute, they state, does little to help its members, especially at the beginning of their career, when they are most in need of help. And then, to emphasize their argument, they will draw comparison between the organization of the architectural and the medical professions; the latter having received much publicity lately-and, incidentally, much criticism from the public.

Now, in the first place, this aloofness is entirely selfish, the attitude of the captious questioner being always: "what immediate benefit shall I get from sitting for the examinations and for paying my annual subscription?" In the second, any comparison between the medical and the architectural professions is, at present, quite unfair, since the one has obtained registration, and is recognized and protected by the State, while the other has none of these advantages. The position, too, is entirely illogical. What makes for the strength of the medical profession? Surely the fact that all members belong to its organization. What makes for the weakness of the architectural profession? Surely the fact that all members do not belong to its organization. Thus the man who remains outside the R.I.B.A. and questions, is the very cause of the faults of which he complains. Only when the profession is a united body can the Institute work for the full benefit of its members, and to-day more, perhaps, than at any previous time is there work to be done.

A flagrant example of the kind of thing which we hope and think would never have happened had the profession been more united, has recently occurred at Birmingham, where the work on the Town Hall is to be carried out without any professional advice whatsoever. When one of the largest cities in the kingdom acts in this way, the position is, indeed, serious. Yet even under present conditions we cannot help thinking that the Birmingham Architectural Association should have been more alert to the situation and have taken prompter action. A letter should have been sent to the appropriate civic authority, and, if necessary, the whole correspondence should have been forwarded to the Press. And, of course, the Institute should have been informed at once, so that it might have taken whatever action it thought fit. Actually the sole public protest, on what is an extremely serious matter for the whole profession, has been made by Professor Reilly in the Observer.

There is another matter in which architects require the backing of a powerful professional organization, and that is in connection with public appointments. Some of the salaries offered by public bodies for professional posts are quite inadequate. We believe that all public medical appointments are carefully scrutinized, and no doctor is allowed to accept an underpaid post. Architects certainly require some such backing, but that it is not at present available is largely due to the attitude of those very men who most need it.

Again, it is often said that the profession is very much overcrowded. No doubt the statement is true, and it is true probably of every profession in England to-day, but the overcrowding in the architectural profession is not due so much to the fact that there are too many architects and too little building, but rather that there is an immense amount of building which is carried out without the services of an architect. Now, if the "unarchitected"if we may be pardoned for coining our own word-buildings were as successful as the "architected" ones, the profession would clearly have no case; if as good buildings can be built without architects as with them, wherefore architects at all? But the "unarchitected" buildings are inferior. Indeed, it is generally recognized by those who have given thought to the matter that this spoliation of the countryside and of the environments of almost every small town which is proceeding apace, is for the most part due to the failure on the part of those responsible for the building to engage the services of architects. Of course, it cannot be assumed that every building designed by an architect is a good building, any more than that every treatment recommended by a doctor is a good treatment, but the whole amenity of the country would be improved were the employment of architects more general, and at the same time the overcrowding, of which there is at present justifiable complaint, would be lessened.

But the additional power required by the Institute to enable it to help its members can only be acquired if it has the loyal support of the whole profession: both the art and the profession of architecture require no less. There must be no critics from outside, for any man who remains outside is either otiose or selfish. When, at last, the Institute has the backing of the entire profession, then it will be able to strive for the good of its members and for the good of that art which its members serve. We do not think that

NEWS AND TOPICS

The development of Oxford is still uncertain. The townplanning scheme which was the subject of a public inquiry, conducted by Mr. Pepler of the Ministry of Health, has been closely examined, but it is the future of St. Aldate's which still absorbs the chief attention of those interested in Oxford's future. The approach from the south is at present far from beautiful, as I discovered for myself the other day as I motored into the city over Folly Bridge, and yet there are possibilities now for making this a beautiful approach which will not occur again, maybe, for centuries. If the east of St. Aldate's can be kept clear there will be beautiful new views across Christchurch Meadow of the cathedral. At present Christchurch and the City Council are trying to agree as to what is to be done. The ideal solution undoubtedly calls for sacrifices on both sides. The land is valuable, and there is a temptation to fill coffers by permitting St. Aldate's frontage to be used for shops. Yet if this comes about what an opportunity will be lost. The approach from the south as far as Folly Bridge is certainly not entrancing; there is the straggling development, such as mars the approach to so many of our towns to-day; but once across the bridge the beauty of Oxford would blaze upon the traveller if the east of St. Aldate's can be kept open. Such an improvement is surely worth considerable sacrifices. I hope they will be made.

Amongst the "notable sayings of the week" I remember seeing recently that some one emphasized the need for clear thinking. Confusion of thought is certainly very prevalent to-day, and an example of what is constantly confronting architects is that women, because they live in houses and "run" them are therefore ipso facto or ex officio competent to design them. I see that Mr. Arthur Tyler, the chief Liverpool district representative of the Amalgamated Building Trades Union is to suggest that there be a special meeting at which wives of the members be allowed to express their opinion as to how working-class houses should be built, and as to the installation of labour-saving devices. Yet how can the expression of opinion on such a complex matter as house design by one unfamiliar with the technique of building be of any value? As to many of the labour-saving devices on the market to-day I am inclined to agree with the reported remark of a Liverpool architect, "I saw a recent 'Ideal Home Exhibition.' It would take an extra two maids to keep the labour-saving appliances in order." The fact of the matter is that women are alive to certain defects existing in older houses, such as the lack of cupboard space, the height of sinks, inefficient and extravagant cooking and heating apparatus, and so on, and on that account seeks to set herself up as an authority on house design. She forgets, or does not know, that many of the faults can only be remedied at an increased cost, and increased capital cost means a higher rent. After all, it is cheaper to waste a few cubic yards of space than fit it up as a cupboard, with its plastering, its door and door furniture, its shelves and hooks, and so on. She would grasp in a moment that it would be cheaper to make a coat without any pockets, but not that it is cheaper to make a house without any cupboards. Not that I would, for the world, advocate such a thing.

Joseph Pennell, the news of whose death from double pneumonia, at the age of sixty-six, came on Saturday from Brooklyn, had moved among many distinguished friends-Shaw, Henry James, Walter Crane, Henley, Sargent, Abbey. It was Shaw through whose introduction he became art critic of the Star, writing over the initials "A. Cr." In the Pilgrim series of books, in which he collaborated with his wife (Elizabeth Robins), he published very many sketches of buildings. But his most effective work was seen in his lithographs of smoke-reeking factories, to which he certainly imparted a kind of uncouth poetry, Whistlerian at least in intention. Whistler, whose biography he wrote, was an obsession with him; Pennell being to him like an elongated shadow. I was once present at a lantern lecture of his in which his Whistlerian rudeness was so provocative that his audience chaffed him mercilessly, until he flatly refused to go on-in fact, he went off, in a towering temper, to the accompaniment of loud jeers from a group of noisy students. He must have been a prodigious worker; but he was too prone to imitate Whistler's bad manners and odd mannerisms.

The remarks of Mr. James Agate in his debate with Mr. Henry Ainley at the London School of Economics on the subject of "Are Critics taken too Seriously?" though confined chiefly to dramatic criticism, might equally well apply to art in general. The public is the same whatever the art concerned may be, and it was the public-as was to be expected from the lips of a critic-that formed the object of Mr. Agate's attack. Far from criticism being taken too seriously, he was of opinion that nobody took any notice of it, and that nobody wanted it. Mr. Agate rather aptly summed up his point of view by the assertion that he had "never seen anyone wearing a dinner jacket reading anything better than the Daily Mail." This leads one to the conclusion that while the arts are as dependent as they are on a rich, powerful public, uncultured in an artistic sense, the only remedy is to continue to criticize doggedly until some impression is made. Mr. Ainley, on the other hand, had no quarrel with a public that had made his life (in the words of the chairman, Mr. W. B. Maxwell) "Roses, roses all the way." He maintained that the stage took criticism very seriously. He himself always read the papers. Squaring his shoulders, he declared, with engaging frankness, and in his own inimitable manner: "I adore praise; I love publicity, and nothing delights me more than to see myself described as the greatest actor in the world."

An antic saw hath it that woman is of a nature resembling that of the ivy—her husband being ruined, the closer she clings. A pretty enough conceit, but subject to an untoward retort discourteous—that the closer she clings to him the more is he ruined. Which repartee shows the danger of dallying with figures of speech. I fear that the case against ivy cannot be exaggerated. Let it be granted that to primitive and unreflecting persons ivy and other creepers "look pretty." In childish minds creepers are associated with pretty-pretty postcards, and that settles the matter—in one way for the soft sentimentalist, in another for those who have a sound regard for sound buildings. There is no escape from the hard facts. Ivy and other parasitic growths first obscure and finally destroy buildings. Ivy, in particular, is a sinister and

deadly enemy to the fabrics it is invited and encouraged to sap and devastate. And yet a sensible clergyman I know was censured as a heartless vandal for uprooting the ivy that was beginning to climb the walls of his newly-built church. His soft answer to his censors was that the architecture of the church being beautiful, he preferred its beauty to remain unadorned. He would not allow an insidious vegetable enemy to disfigure and destroy it.

A Times correspondent calls attention to the parlous state of the fine Shropshire abbey of Lilleshall, which is of the late twelfth century. He states that it "has fallen a victim to ivy and other parasitic growths. The ivy, indeed, has attained quite a Gargantuan growth, and surges over the masonry in huge cascades, accumulating in places into almost incredible masses—the huge tendrils threatening to disintegrate the whole structure." Pretty much the same dismal account is given of the other four Shropshire abbeys, namely, Shrewsbury, Buildwas, Haughmond, and Much Wenlock. It is pitiful, and, alas! similar instances abound throughout the land. It is the plain duty of churchbuilding societies to discourage the pernicious cult of creepers, and to be very explicit that they are not only in bad taste, but are with deadly certainty the natural agents of destruction. I have been told that ivy is venerated as an emblem of Eternity. Rather it should be regarded as the blight and bane of the works of man.

The design of vehicles is a subject which is naturally of great interest to architects. It is noteworthy that the Compagnie Internationale des Wagons-Lits and des Grands Express Européens has offered a prize of 100,000 French francs for the best scheme for the "interiors" of sleepingcars. The object of this competition is to afford everyone an opportunity to set forth his suggestions for the betterment of the comfort of travellers. Schemes must be submitted to the Siège Administratif de la Compagnie des Wagons-Lits, 40 Rue de l'Arcade à Paris, by April 30. The standard of design in railway carriages is already very high, and the competitors will not find it easy to introduce many notable improvements. Not only in France, but in England also the question of the artistic treatment of railway trains is receiving attention, and the London Midland and Scottish Railway has recently introduced all-steel coaches. These are the first of their kind to be seen in this country, for although all-steel rolling stock has been used on some electric railways, they have scarcely been known hitherto on British main line trains. The type of coach here adopted is the vestibuled central-corridor type, and is 57 ft. in length. Fifty-six passengers can be carried in each coach, and a table is provided for each set of four seats. Of course, the coach is not strictly speaking "all-steel," since the seats and interior fittings are of wood (mahogany obtained from colonial sources), forming, as it were, a lining slipped into a steel framework or shell. In some cases, however, the interior finish will be of steel throughout, special decorative colour schemes being adopted. The average passenger will probably not be aware that he is travelling in a coach that is not constructed in the manner usual in this country. There is scarcely any difference in the external appearance, and the running is as quiet as with wooden cars, without any of the "drumming" which is sometimes regarded as an attribute of the steel car.

When one comes to think of it there is really little reason why a steel car should be shaped differently from one made in wood, for these two materials have similar properties, both being capable of considerable tensile and transverse stresses. The only advantage which steel has over wood (apart from its superior strength) is that it could the more easily be designed in curvilinear shapes. In these new coaches, however, the constructors have not availed themselves of this property of steel, but have been content to accept the convention that railway coaches are little more than a refinement of the rectangular box. Indeed, it is difficult to imagine that anything could be gained by giving them a licence to assume eccentric shapes, for as the coaches are liable to be shifted about from one train to another, a certain measure of uniformity in their design is eminently desirable. The chief reason why steel is being employed for this purpose is that wood of the quality required in building railway carriages is continually becoming scarcer and dearer, and is an imported product. On the other hand, steel is available in unlimited quantities, and the railway company feel that in adopting all-steel construction they are assisting a home industry.

I wonder how many times in the course of the last few years some new patent method of construction has been hailed as a solution of all our housing difficulties? I do not wish to be called an obstructionist or a reactionary, but, nevertheless, I feel convinced in my own mind that the solution is to be found in such simple matters as a more plentiful supply of bricks and labour. But most housing experts, I know, would advocate any solution rather than this one. The latest solution, and one which may "revolutionize rural housing" (I seem to have heard the phrase before) comes from St. Paul's Cray, in Kent, where Mr. T. H. Nash has built a bungalow of refuse, or, at any rate, partly of refuse, "which had been deposited long enough to allow the vegetable matter to become decomposed." I certainly agree that if rural districts all over the country are to build houses of decomposed vegetable matter a revolution of some kind is likely, although I know of an important south-coast borough which built itself some very excellent houses of concrete bricks, the aggregate of which came from the municipal destructor. Personally, however, I would back well-fired brick earth against compressed decomposed vegetable matter as a solution of the housing problem, and if it did not bring about a revolution in rural housing I should not be upset about it.

It was a certain Mr. Jefferson Brick, was it not, whose fierce philippics as war-correspondent of the New York Rowdy were to set Queen Victoria all a-tremble on her tottering throne in the Tower of London? It would now appear that the said Tower, like the aforesaid J. B., has become slightly cracked. There is no fear of disaster to the public, and there is nothing to make the harassed Chancellor of the Exchequer shudderingly draw his pursestrings tighter, for there is no need to apprehend either immediate collapse or enormous expenditure on extensive repairs, and it is merely an accidental coincidence that the custodians of the Tower are selling-off at bargain prices their surplus stock of genuine old armour: iron headgear a speciality. It is not necessary to assume that an overload of Carlovingian helmets, such as are being sold at sixty shillings each, has forced the old Tower to come unstuck.

Enemy air-raids and other "accidents and errors excepted," the grim, grey old fortalice may yet exist for centuries to justify W. S. Gilbert's boast for it: "On London town and all its hoard I keep my solemn watch and ward"; a right Cockney rhyme, better in intention than in its effect on a sensitive ear, for a Sitwell might swoon at it.

"Quot homines, tot sententiæ." A gentleman who lives in Surrey tells me that it is not so much the houses (which Mr. Bulkeley Creswell tells us are erupting like an erysipelas on the fair face of the South of England) that are like to spoil the country, but the planting of alien trees in the gardens and small estates. Anything that will take root, from a monkey tree to a giant cactus, so long as it come from foreign parts, is preferred to our native oak, and elm, and ash.

Bridges link together the "Here" and the "There." They seem to have a strange gift of belonging to two places at once. If I stand on the Victoria Embankment and look at Waterloo Bridge, I feel that it belongs more to the south side than to the north. If I cross to the south side and regard it again, I feel that it belongs more to the north side than to the south. After gazing at the receding arches of Pierre Vignal's water-colours, and at S. Chamberlain's and Louis Rosenberg's black-and-whites in the exhibition of Old French Bridges at the R.I.B.A., I retired defeated by their mystery. But besides being baffled by their conjunction of north with south, and east with west, I was awed by the perfection of their purpose and the beauty of them.

It is said that our architects, our engineers, can no longer build such things. "The requisite tradition does not exist." This, I think, is true. If anyone believe that the

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fine arches of Waterloo Bridge can be repeated, let him look at this photograph of one of the sham arches of the new Regent Street.

Indeed, our efforts nowadays are devoted more to going upwards than to going across. Bridges we build mechanically and with some boredom, our enthusiasm being given over to skyscrapers, aeroplanes, and express lifts. In some of these can be found the beauty our modern bridges have lost. (Perhaps it is true that there is just so much beauty in the world, and if, like matter, what we have cannot be destroyed, never can more be created.) Though I have never been able to give much love to passenger lifts and aeroplanes, I can see that these things are admirable and wonderful. As bridges have carried us across space horizontally, so these newer bridges may help us to reach the stars.

The story of the transition from the Chinese windlass to the modern high-speed electric passenger lift has in it the atmosphere of romance. Vitruvius describes an elevator built by Archimedes in the year 236 B.C., and I have read that the palace of Nero contained three lifts. It was when a serious mishap occurred to the daughter of a French king that these "flying chairs" fell into disuse. I think their strange history, and no doubt still stranger future, must have been in the minds of Messrs. Marryat and Scott, liftmakers, when they made their catalogue of lifts for 1926. Besides giving many imaginative pictures of lifts descending through the bowels of the earth to the antipodes, or ascending through stellar spaces, they give very careful diagrams of a lift's working-parts-upon which they have built a fine business and reputation, and by means of which such travels extraordinary may one day be made. And it must have been with the object of turning my sad thoughts from the R.I.B.A. exhibition of bridges, with its memories of many beautiful ones destroyed, that they kindly sent a copy of their catalogue to me.

ASTRAGAL

ARRANGEMENTS

SATURDAY, MAY I

The Royal Institute of British Architects. Visit to Stowe School, Buckinghamshire.

MONDAY, MAY 3

At the Royal Society of Arts. 8.0 p.m. Charles Reed Peers, C.B.E., M.A., on Ornament in Britain. (Lecture III.)

At the Royal Institute of British Architects. Annual General Meeting.

THURSDAY, MAY 6

At the Royal Society of Arts. 4.30 p.m. Sir Frank Baines, c.v.o., c.b.e., on the Preservation of Ancient Cottages.

FRIDAY, MAY 7

At the Royal Society of Arts. 4.30 p.m. Herbert Baker, A.R.A., F.R.I.B.A., on the New Delhi.

SATURDAY, MAY 8

The Edinburgh Architectural Association. Visit with the Glasgow Architectural Association to buildings in course of erection in Glasgow.

OUR CRITICISM INQUIRY

PART ONE OF THE EDITOR'S REPORT

THE OBJECTORS

The large number of completed questionnaires—close upon three hundred-which have reached THE ARCHITECTS' JOURNAL office show quite clearly that the question of criticism is one in which the profession is at the moment taking the keenest interest. Very few architects who were supplied with forms have failed to send them in, while many requests for questionnaires have come from others not so supplied. I need hardly say that the majority supports the idea of criticism with considerable warmth. But the verdict is by no means unanimous. Forty-six correspondents will have nothing to do with criticism either in the technical or lay press. Among the more important of these I am allowed to mention Mr. Mervyn Macartney, Mr. W. Campbell Jones, and Mr. John D. Clarke. I will begin by examining the arguments advanced by these dissentients. They may be summed up as follows:

a. Criticism offends against the rules of "cricket,"
 "sportsmanship," and professional etiquette.

b. It interferes with freedom.

c. It does not help us to get rid of a bad building once it is up, and is, therefore, useless.

d. It militates against the unity of the profession, and causes it to appear before the public in an unfavourable light.

e. It cannot be divorced from personal considerations, and is productive of ill-feeling among architects.

f. It is impossible to practise to perfection.

The first three arguments (though everybody must admit that the third has much to commend it) need not be discussed in detail. To speak of etiquette, for instance, is to admit the existence of a right and a wrong kind of criticism, and having made such an admission you cannot logically go on to condemn both kinds. It is interesting to note that the expression "sportsmanship" has been used with equal relish on both sides. While some have called criticism an

unsportsmanlike act, others are convinced that no architect who resents fair criticism can possibly be called a sportsman. Of these two statements the second would certainly appear the more reasonable. Mr. Ralph Knott, on the other hand, is one who specifically condemns the expression. He says that people like Sir Reginald Blomfield have rendered an ill service by employing it, for it can only obscure the issue. "We are not playing a game," he protests, "we are out to get a proper appreciation of architecture." But I continue.

The arguments d, e, and f are substantial, and though only a few correspondents have been driven by them to take an extreme position, they occur again and again in the answers of those who hold that the effect of criticism will be, on the whole, beneficial.

THE PROFESSION AND THE INDIVIDUAL

The most important objection is no doubt that which sees in public criticism a danger to the solidarity of the profession, its dignity, and its corporate good fame. I have yet to come to those who make a distinction between the public and the technical press, but it is pointed out by one or two that from this particular angle of view the distinction does not much matter, since the public press is liable to quote from the technical papers just such controversial passages as might prove most injurious. For it is controversy especially that is feared. Architects, it is felt, who dip their dirty linen into printers' ink are doing the profession no manner of good. The public can have no confidence in experts who are continually wrangling among themselves. If it were true that architects could not criticize without wrangling (which assertion cannot seriously be maintained) then it would certainly be better for the profession if a ban were placed on public criticism by its members. But others who perceive the same danger have contented themselves with making it a condition of criticism that the dignity and welfare of the profession be



Sir Reginald Blomfield, R.A.: "Those who write should put their names to what they write."



Mr. H. V. Lanchester: "Criticism should be absolutely free and open," says Mr. Lanchester.



Sir Edwin Lutyens, R.A., who thinks laymen will produce the best and most valuable architectural criticism.

always borne in mind by the critic. Many correspondents have laid down such conditions (usually three in number), and all of these are agreed that the critic should not be allowed to forget his duty towards his profession. Several have, indeed, gone so far as to say that the fullest exercise of this duty is the critic's chief function, and that his criticism should, above all, be calculated to raise the profession in the public esteem. None of my correspondents denies that this is possible, though not all, of course, lay the same stress on it.

The fourth argument, the personal one, makes a less

himself to the appearance of a building only. But, as a quotation from Mr. H. V. Lanchester will show later on, the critic's failure to recognize these things is not irreparable. The second obstacle mentioned is the extraordinary intellectual eminence that is demanded of a really effective critic. Mr. E. R. Bill, of Shrewsbury, asks what we should have thought of the trustees of the British Museum if they had acted upon the advice given them by Payne Knight, and refused the pedimental sculptures from the Parthenon on the ground that they were inferior Greco-Roman work. This question was not only one of



Mr. Oswald P. Milne: "It remains for such papers as THE ARCHITECTS' JOURNAL to encourage criticism."



Mr. Percy B. Tubbs, who considers a ban on anonymity an important safeguard against abuses.



Mr. W. G. Newton: "The proposal to put an official ban on criticism is laughable."

frequent appearance. One correspondent speaks of the "unfriendly feeling" that would result from mutual criticism among architects, and prophesies that if it were widely indulged in the pages of the architects' Journal would contain nothing else. I do not think he need have any serious fears on this point. A Glasgow architect says that "the slightest criticism would be remembered by many architects for years, and cause concealed antagonism for a generation." Surely this is altogether too pessimistic! A third states that he has known of serious damage inflicted upon the reputation and prosperity of an architect by uninformed criticism. This gentleman is one of those who welcome the idea of an R.I.B.A. ban. In so far as he holds that the criticism was made without a full knowledge of the facts he claims support from the last argument rather than from the fifth.

COUNSELS OF PERFECTION

This sixth and last argument, which lays such a great stress on the difficulty of true criticism, recognizes three principal obstacles to such a criticism. The first is that of insufficient knowledge of the facts to which I have just referred. On this point the testimony of Mr. Cuthbert Lake, who speaks as an expert in surveying and legal matters, is of considerable interest. "When dealing with individual work in towns," says Mr. Lake, "the critic rarely recognizes the difficulties and handicaps of the shape and position of a site or the manner in which it is dominated or obstructed by lights." This is an important point which to some degree justifies the stipulation made by several other correspondents that a critic should confine

accurate historical information, it was still more a matter of æsthetic judgment. But it is necessary that criticism should be infallible? Mr. John D. Clarke, of Eastbourne, insists on the temperamental difficulties. He says that though it would be considered a journalistic "scoop" to be able to print Mr. John's opinion of Sir William Orpen's latest portrait, the public would attach no importance at all to what Mr. John said, no matter how highly it might esteem his own pictures. This is, I think, one of the most interesting reasons advanced by those who object to criticism, and if we got nothing more instructive from architects than the platitudes emitted by some of our distinguished painters, there would not be much to be said in favour of architectural criticism by architects. But in point of fact architects have written a good deal of late years that has been profoundly true as well as eminently useful. "For myself, when I criticize, say, Sir Edwin Lutyens's work, I lose my head. I don't mind what he does, what tricks he plays: I think they're all equally wonderful." Well, that is a feeling which does Mr. Clarke great credit. But would it be quite impossible even for him to control it, and to keep his head before a masterpiece? Hardly.

Fourteen out of the thirty-seven objectors are of opinion that the R.I.B.A. should take some action to prevent its members from engaging in public criticism of contemporary work. The others are content to leave it to the individual member's sense of decency.

THE PUBLIC PRESS

Those who would admit criticism to the technical

papers, while debarring it from the public press, though somewhat less numerous than the total objectors, give, on the whole, what would appear more adequate reasons for their objection. The arguments set forth under a, b, and c alone do not appear in this group, but each of the other three is employed in turn. The danger to the solidarity of the profession arises chiefly, of course, in connection with the public press, but we have already seen that no effective barrier exists between this and the technical papers. As for the personal element, Mr. Gillbee Scott, speaking of the recent criticism of Regent Street, says:

majority of them are far more emphatic in their approval than the others in their condemnation. "Anywhere and everywhere," cries Mr. Ralph Knott. "I consider it essential," says Mr. Clough Williams-Ellis. An interesting statement has come from Mr. Charles Mewès, the Paris architect, whose late father, he reminds us, left more buildings on our soil than on his own, and "braved international criticism on land and sea." "I firmly believe," says Mr. Mewès, "that criticism is not only useful, but indispensable, that it ought to be able to make itself heard in technical reviews and in the general press, in schools,



Mr. Clough Williams-Ellis: "It is more important to be rude about bad architecture."



Mr. A. Trystan Edwards, who says that critics should be criticized in their turn.



Mr. Delissa Joseph: "I would encourage the practice of eulogizing other men's work."

"The inference which most people would draw from such criticism would be that the critic desired it to be known that had he been employed in that street the quality of its design would have been infinitely better." I shall return to this point when considering the demand made by a number of correspondents for "constructive" criticism. The technical conditions affecting the visual and other excellence of a building are, of course, still harder to bring home adequately to the reader of the public press. It is for this reason, I suppose, that Mr. Howard Robertson affirms that "the time is not yet ripe" for criticism in this quarter. The public press is "not yet sufficiently developed," says Mr. Walter Bedingfield, of Leicester, while Mr. John Denvers, the Exeter city architect, believes that "the criticism could not be followed by the bulk of the readers, and would probably be misunderstood." But is it desirable that these readers should for ever remain unable to follow architectural criticism, should for ever go on misunderstanding it? Must the public press never be given an opportunity to develop? Is the time for criticism never to grow to ripeness? Many of those who favour criticism in the public press believe that it is the principal function of such criticism to eradicate this depressing ignorance and misunderstanding and immaturity. Even Mr. Robertson is doing his share with his admirable little book, Architecture Explained, which deserves to reach the widest possible public.

WHY WE SHOULD CRITICIZE

Having considered the objectors, partial or entire, we are free to turn to the advocates of criticism. The great

and on public platforms: that it should exist ante and post mortem: in short, that if it is an evil it is one that is necessary to the development of human thought, of which art represents only a portion." But the stoutest supporter of free criticism is a young student on the R.I.B.A. students' register. "Does not a student's work," he pertinently asks, "come in for very exacting criticism, and yet how often do we find that students' work in many instances is a deal better than some of the monstrosities of design we have presented to us in material form?" How often, indeed, my friend! "Must criticism cease," he asks, "when we leave studentdom?"

SOME DOUBTS

One or two are, though in favour, just a little dubious. "I believe," writes Sir Edwin Lutyens, "that we shall get better, more impartial and more salutary criticism from laymen possessed of the necessary architectural knowledge. It is true that many critics of the other arts are, or have been, executants in the same art. Especially are such men found in literature, and, to a lesser degree, in painting. Of all artists, however, the architect is the one who in my opinion is at present the least fitted, by his origin and training, to exercise the critical function. I do not know how far the schools are likely to alter this state of affairs, but to-day the architectural profession contains, I suppose, a more varied assortment of men than any other profession, more varied in origins, in education, in outlook, in interests, in experience: in everything affecting their work and their conception of this work. For this reason I doubt whether the best criticism will come from within the profession."

It will be seen that though Sir Edwin would not for a moment restrain an architect from exercising the function of a critic, he is yet none too sanguine of the result. He is, however, one of those whose misgivings are strongest. Architects may criticize, says Mr. Oswald P. Milne, provided "they have the critical gift," but, he knowingly adds, "if they are wise men they won't." A Liverpool B.Arch. confirms this warning, and explains that "a big practice leaves little time for the profound study which such a man would feel it necessary to give to a design before commenting upon it." But while a small number put it that "there does not appear to be any objection" against criticism, or that "it is permissible" for architects to indulge in it, and so forth, the bulk of the answers describe it as an important and highly desirable thing. It is not that they cannot see dangers and difficulties of some sort; nearly all do. Both Mr. J. A. Gotch and Mr. H. B. Cresswell, for instance, are dismayed by the prospect of architects wrangling in the papers, and suggest that steps be taken to discourage, not original critical contributions, but controversial letters arising therefrom. Mr. Cresswell would have the R.I.B.A. do this, while Mr. Gotch wishes "that newspapers could regard their responsibilities as extending to the exclusion of such communications." Only one correspondent appears wholly, supremely undisturbed by disagreeable possibilities of any kind. "Your questionnaire," he writes across his printed form, "suggests that architects may be guilty of very bad form and manners, and is, therefore, insulting. I for one shall not again purchase a journal conducted by one who is so far out of touch with the people among whom it is supposed to circulate." A chip of the old block, evidently. I should esteem it a favour if he would kindly send me his name and address.

THE NATIONAL ASPECT

The reasons given in support of public criticism are various. Most of the answers put forward only one reason, some several. Here are two interesting summaries, each divided under three heads. The first is from Mr. T. Taliesin Rees, of Liverpool. Criticism, he says,

a. Gives the necessary recognition to good work.

b. Makes architects more careful not to do bad work.

c. Educates the public.

Mr. C. Cowles-Voysey describes the advantages of criticism as follows:

a. It helps to form a unified and generally accepted standard of judgment.

b. It stimulates public interest in architecture.

e. It gives architect and layman a sound knowledge of

the principles of the art.

On some such lines it is that most of the advocates argue. Criticism helps architecture, it helps the public, it helps architects. Is there no other advantage to be derived from it? Mr. Goodhart-Rendel is one of the few who advance a fourth argument, one which surely deserves more attention than the general tenor of the answers pays

it. This is what Mr. Goodhart-Rendel says:
"I think it is a man's duty to protest against the disfigurement of his country, even though the process of disfigurement be the livelihood of a member of his own profession. To connive at such disfigurement by silence seems to me a not very respectable sort of trade conspiracy. I thus hold it perfectly allowable for an architect to be a member of the Society for the Protection of Ancient Buildings, a large part of whose activities is directed against

the proposals of architects. I further think that as a presumed expert he should be ready to offer his opinion upon his special subject to his fellow citizens, whenever that opinion seems likely to be useful."

It is curious that this national aspect of the critical function should not have commended itself to a larger number, especially at a moment when the disfigurement of rural England is causing such universal concern. This was the aspect of criticism with which the leading article in THE ARCHITECTS' JOURNAL for March 24 opened, and it quoted from Mr. Guy Dawber's address to students in which it was hinted that "the architectural evils from which we are suffering to-day, such as the ruin of the English countryside . . . and the uglification of our cities . . . " were due, among other things, to the paucity and inadequacy of architectural criticism. It is a grave issue that is here raised, for to educate an ignorant public, to interest an indifferent one, these things are all very well, but to help prevent the destruction of such beauty as is left in modern civilized countries would appear an object of even greater consequence.

THE TROUBLE ABOUT ANONYMITY

Some of those who apprehend difficulties have been content to point out these difficulties. To these reference has already been made. Others, however, are persuaded that conditions ought to be laid down, and in some cases even enforced by the R.I.B.A. I will deal with these conditions in their proper place under the head of etiquette, but one of them must be considered here, since it was hinted at in the first of the four questions set. It is that which stipulates whether criticism should be signed or unsigned.

With some exceptions signature is everywhere insisted on. "On one point," says Sir Reginald Blomfield (who would appear to have relented a little since he wrote in the Quarterly Review that architects should "observe the strict and honourable etiquette of the medical profession"), "I am quite clear, and that is that anonymous criticism should be ruled out absolutely. If criticisms are made by architects on each other, those who write them should put their names to what they write, and one will then know what importance to attach to their criticisms." reason is an important one. Mr. Clough Williams-Ellis is also distrustful of anonymous criticism because "the personal equation could not be so well allowed for." It is not, however, the most forcible argument advanced, for a good many consider that the publication of the author's name would in itself make the more undesirable forms of criticism impossible. According to Professor Budden anonymous and pseudonymous criticism are alike undesirable, because they "provide a cover under which the functions of a critic may be abused with impunity." Mr. Percy B. Tubbs recalls the clause in the code of ethics promulgated by the (now dissolved) Society of Architects, which held that "A member must not anonymously criticize in public print the professional work or conduct of another architect, except when acting in an editorial capacity." Mr. Tubbs, and, in fact, a good many others, while they are doubtful of the possibility of enforcing a code of etiquette which will render it impossible to abuse the critical function, yet hold that such a ban on anonymity should go a long way towards achieving a similar effect.

[Only the first part of the Editor's examination is given this week. The conclusion, together with the summing-up, will be given in our next issue.]

FRANCIS DERWENT WOOD, R.A.

BY KINETON PARKES

At the Memorial Exhibition at the Leicester Galleries, several of the great monuments that were made from time to time are represented by sketch models, a number of decorative pieces are shown in bronze replicas, and some sculptural architectural work by models and drawings. To these are added many statuettes and groups in their original sizes, and reduced models of larger statuary in marble and bronze. In addition, there are numbers of paintings in oil, drawings in water-colour, pen and wash,

and designs. Altogether, then, the show is fairly representative of the total output of the work of Francis Derwent Wood, one of the outstanding figures of the Royal Academy and of the art of the last thirty years.

One side of the artist's talent is not, for obvious reasons, well established here however, and that is the architectural work, mostly of his earlier years. There are four fine statues of "The Arts" on the Kelvinside Art Gallery at Glasgow, and four of "The Industries," carved in stone on the Mercantile Buildings of the same city. To these have to be added various stone reliefs in different places, and such fine groups as those adjacent to the Victoria Memorial at Buckingham Palace. He also made some very fine domestic ornamental pieces, including four bronze statues of "The Seasons" for Shipley Hall, and a fountain, among others, for the garden of Wiston Hall, both places in Derbyshire. His panel decorations for Aldford House, Park Lane, were very fine, as also the various low relief panels with which he in-

creased the dignity and charm of some of his monuments, notably that of the Gaekwar of Baroda.

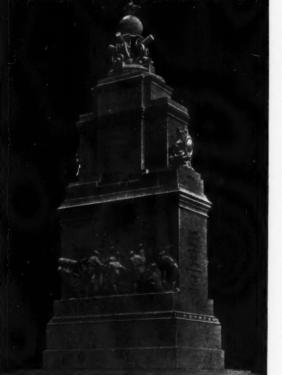
He modelled some beautiful things for Mr. Henry Phipps, of Fifth Avenue, New York, and Mr. Jay Phipps, of Westbury House, Long Island. These included, for Fifth Avenue, a stately mantelpiece with caryatides, and another with terminals, and a panel over the door of the library; silver sconces, firedogs, and a bronze screen and gates. For Long Island there were a staircase screen of carved wood with figures, a stone mantelpiece as well as a marble one, and in this work the sculptor was associated with his friend George Crawley, the architect.

Derwent Wood carved in stone and marble as well as in teak, mahogany, and other woods, but he had no time to practise as a direct carver. He was essentially a modeller, and worked in clay and wax for casting in plaster, or for baking in terra-cotta; for casting in bronze or silver; or for painting in marble. At later stages he worked on the surfaces of his pieces, where they required it, adding in this way to the surface modelling and surface charm by patina, filing, and chasing or tooling. In style and quality his work ranks with the fine work of the Renaissance, which he admired immeasurably in its great examples. He gave to his own work that humanism which the great Renais-

sance sculptors grafted on to the perfection of the classic figures of the supreme period. However pure in form, there is always the touch of naturalism that makes all the art world kin. He made three fine statues with all the classic graces: "Atalanta," "Truth," and "Psyche," the two former in the Art Gallery at Manchester, the latter in the Tate Gallery, London, and he has made a number of other statues for niches and for gardens, some of which date from quite an early period in his career, and they all exhibit this predilection for classic form. This never degenerates into formalism however, as on the other hand his work never descends to actual realism, not even in the head of "The Unrepentant Thief," nor the statuette of "Cain," nor in the extraordinary series of small groups of soldiers in the field, which were seen at the Grosvenor Galleries. To these (noted with photographic certitude) he imparted a meaning and a message which lifted them completely out of the

category of realism.

With all his love for Renais-



A design, prepared in conjunction with Sir Edwin Lutyens, R.A., for the Royal Artillery War Memorial, Hyde Park, London.

sance work, however, he less than most of his British contemporaries relied on ornament for his effects, but a decorative effect had a great fascination for him, and, indeed, his masterpiece of statuary, "William Pitt, Earl of Chatham," in marble, exhibited at the Academy of 1918, and given by the American women in England to the National Gallery of Art at Washington, is full of the decorative charm of the period to which it belongs, and his "General Wolfe" at Westerham, in Kent, is only less conspicuous in this respect.

His purely naturalistic work is best seen in his really remarkable portrait busts, the finest of which, that in marble of "Henry James," is in the Tate Gallery. It is not often that a sculptor has the opportunity of making a statue from life, but Derwent Wood had this good fortune





in the case of Mr. Royce, of motor-car fame, and produced a thoroughly satisfactory, naturalistic result, which now stands in the Arboretum at Derby.

His war memorials take a foremost place amongst the lamentably few which are worthy of the world's greatest catastrophic theme. There is a simple soldier in the church at Ditchingham, in Norfolk, and a decorative monument at Cleckheaton, in Yorkshire, which are wholly satisfying and satisfactory, while at Bradford Art Gallery there is the most important idealistic in Great Britain evoked by the war - a great group in marble of "Peace subduing War," commissioned by the Corporation of that city. To this work the artist gave all his best efforts, modelling the great group in clay from Nature, modelling afterwards upon the nude figures the drapery which gives them an added distinction. His predilection for the classic style is seen in the memorial to the Machine Gun Corps, which stands at Hyde Park Corner, surmounted by a beautiful youthful figure of David,



with sword and helmet, in bronze, and more than 8 ft high. This is the most important purely sculptural monument of the war up to now commissioned for London.

A fine craftsman, Derwent Wood was also an accomplished draughtsman. His "sculptor's drawings" have been known for many years: drawings from the life, and life drawings from memory, and to these he adds decorative designs in pen and pencil and charcoal. He was also a craftsman in wood-engraving, starting with a series of caricatures of artists, made for the most part at the diningtable of the Chelsea Arts Club, and transferred afterwards to the wood-block. He also cut a startling series of designs for The Book of Job, a dozen in number, and 16 in. by 13 in. in size.

Above, left, Sir Joseph J. Thomson, O.M., F.R.S. (marble). Right, Walter W. Russell, A.R.A. (bronze). Bottom, sketch for a statue to a painter (bronze).

CURRENT ARCHITECTURE SECTION

MR. WILLI'AMS-ELLIS'S NEW BUILDINGS AT STOWE

BY A. R. POWYS

Few tasks which engage the skill of an architect can be more difficult than designing buildings to adjoin or stand near a complete and famous work which was built for quite other purposes than those for which the new plans are made. It is this task which has fallen to the lot of Mr. Williams-Ellis, and to his difficulties have been added those others which architects know well, but which many,

when they appraise the work of their fellows, are apt to forget. For, the particular purpose of the new buildings, and barely sufficient sums of money available to fulfil that purpose have hampered this Again, it must architect. never be forgotten that the great house, with which the new buildings must inevitably be compared, was built without regard to cost, so that it should display the magnificence of the owners. Much money was spent on gaining architectural effect alone, without any economic purpose. It is in these circumstances almost inevitable that the casual visitor will remark the change in scale of the new buildings, and may condemn without thought or belittle with superficial knowledge, the really sound effort that Mr. Williams-Ellis has made to meet the requirements of his clients.

The architect, ruled by these conditions, has designed his new buildings so that any idea that they were intended to compete in grandeur with the old house may not ever be presumed. Where he has added to the house or altered

it he has done so as an artist and as a straightforward builder. Thus the new buildings within the east court—the study block and the new classrooms—and the west laboratory block, which adjoins the orangery, are simple and unaffected, while the planning is direct and sometimes adroit. The classroom blocks on the eastern wing of the north front may not show genius, yet they are workmanlike and sane. There must be very few, and those few either ignorant or very hard to please, who hold that these buildings are ill-conceived or disagreeable. One difficulty which might have been met better—but can any say how?

—is that which rests on the necessity for large areas of window glass and special means of ventilation. The class-room buildings take the form that was traditional in the first years of the last century, and our minds, accustomed to more wall space in such architecture, may question without injustice the wisdom of adopting a manner which cannot bear the extra window area without inevit-

ably raising such doubts. The new laboratory block, crowned with a really beautiful flèche, raises the same question. Circumstance demanded many windows on each floor, and ordered that they should have like height. Mr. Williams-Ellis has done well in securing that there are wide spaces of solid walling at the corners of this block. He has with considerable success arranged arched recesses in balanced array above the three windows of the ground floor on either hand of the central projecting mass. There is nothing more unkind to the author of the design than there is to the writer of this article when the latter asks whether this building had not been better, would not have had a more generous scale, if this central block had been omitted altogether? It seems to me, and I lay myself open to criticism equally with Mr. Williams-Ellis when I write this, that this building would have been finer had the front been on one plane face sheltered beneath an eaves of greater projection. I believe the flaming cupola



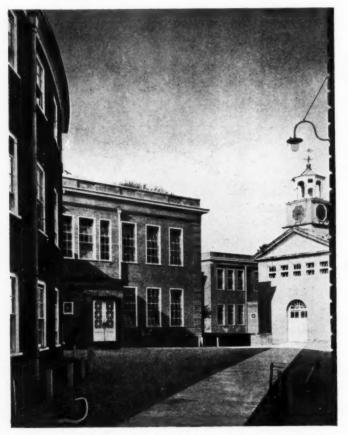
The old bells, now rehung in openings in the flanks of the north portico. The embellishments were suggested by the arms of the School, and were carved by Mr. Bickerdike. These bell yokes were exhibited in the British Pavilion at the recent Exhibition of Decorative Art.

would have shone as nobly had this been so.

Since I am embarked upon fault-finding criticism, it will be forgiven me if reference is here made to the change of scale which calls, I think, too loudly for attention in the "union jack" bars of some new doors and windows. It is easy to poke fun at such things, noting likenesses that make them appear incongruous, but it is often unfair, and sometimes malicious.

The new boarding-house — Chatham House — is set apart, standing a building separate from the great palace. In this way a competition in scale has been avoided, and





The new buildings at Stowe. By Clough Williams - Ellis. Above, classroom blocks, numbers 2 and 3. Below, the new buildings within the East court — study block and classrooms.

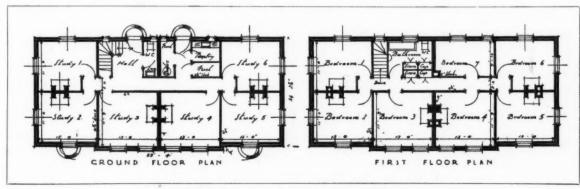


this building stands to be judged as a new work, independent of any surroundings but those provided by trees and the lie of the earth's surface.

Architects are a jealous race. Yet those who suffer most severely from this curse cannot leave Stowe without feeling that here are a number of new buildings cleanly built, strong, seemly, and displaying no petty idiosyncrasies. Mr. Ellis best displays his genius for giving pleasure in architecture when he is designing details which make direct appeal to the decorative sense of the spectator. Thus the oak headstocks of the bells, so skilfully placed in the great roundels of the front of Stowe House, are entirely delightful. The bell hanging beneath the beam is rightly balanced with emblems from the arms of Stowe School, and they together occupy the space of the open circle beautifully. The new

capitals of the tall, unjointed columns which grace the front of Chatham House are perfect. The vases standing on the corners of the same building possess shapely elegance. The interior details, including the school fittings, are excellent in design and workmanship. And, finally, by adding a portico with four widely-spaced columns to the large army hut which serves as a gymnasium, Mr. Williams-Ellis proves that the governors of Stowe School have done well to entrust to his care the control of work which we know may either make or mar the whole atmosphere of this new school.

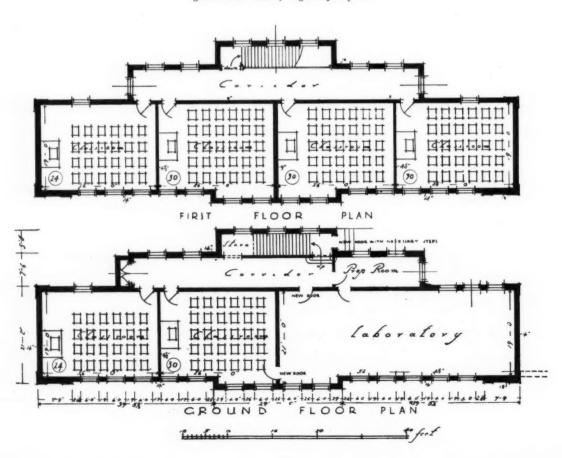
Messrs. J. Parnell and Son, of Rugby, were the general contractors for the block of six classrooms and laboratory (contract price £6,621), the masters' hostel (£2,200), the study block in the east yard (£2,475 2s. 3d., including heating), the dormitory



A lodge for unmarried assistant masters. Above, the back elevation. Below, ground and first-floor plans.



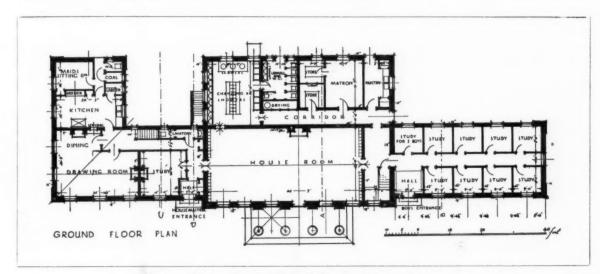
The new west laboratory block. Above, a general view. Below, the ground-floor plan.





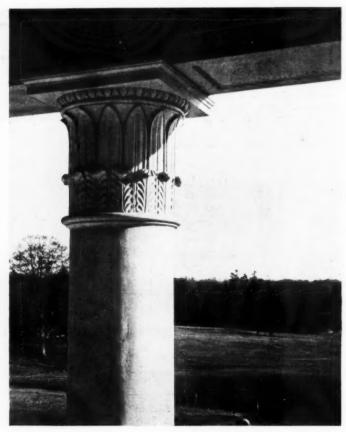
block in the quadrant (£5,003 17s. 10d.), the double classroom block (£4,452 19s. 7d., including heating), and Chatham House (£24,800). Mr. W. E. Grant was the general foreman. All the buildings were erected for the governing body of Stowe School, Ltd. Messrs. Baker and Mallett were quantity surveyors for all the buildings, with the exception of the block of six classrooms and laboratory, and the masters' hostel. Major Leeming, the school engineer, was responsible for the electric wiring of all the buildings except the masters' hostel, and Messrs. Rogers, Field and Bean were consultant sanitary engineers for Chatham House. Among

the sub-contractors were the following: Block and six classrooms, and laboratory—Beaven and Sons, central heating and plumbing; Ewart and Son, Ltd., copper work to cupola; Educational Supply Association, Ltd., school fittings. Study block in east yard and double classroom block—Beaven and Sons, central heating; dormitory block, quadrant—Beaven and Sons, central heating and plumbing. Chatham House—Beaven and Sons, central heating and plumbing; Haywards, Ltd., iron staircases; G. and A. Brown, Ltd., decorative plaster (outside); Lapidosus, Ltd., Lapidosus for exterior facing work.



The new boarding-house "Chatham." Above, a view from the rotunda. Below, the ground-floor plan.

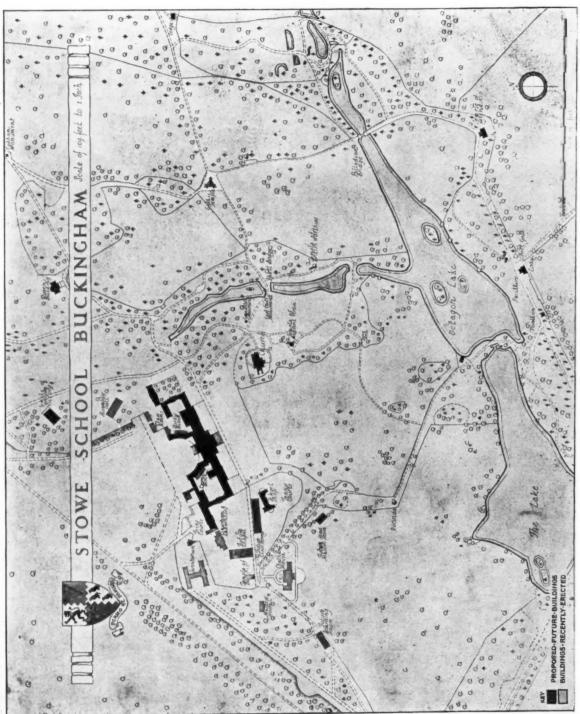




Above, an army hut forming the new gymnasium. Below, a detail of the capitals of the portico to Chatham House and the new gymnasium.



A detail of the front door of Chatham House.



The lay-out of the old and new buildings.

THE COMPETITORS' CLUB

[This week SENESCHAL, the well-known architect who conducts this department, summarizes the conditions of the competition, promoted by the Leicester City Council, for the lay-out of the Saffron Hill Cemetery, and the design of the chapel, lodges, and other buildings. The cemetery is to provide 42.560 graves. No particular architectural style is suggested for the buildings. It is, however, desired that the main entrance to the cemetery should be of an orderly and dignified character. The treatment of the Aylestone Lane frontage generally is not to be unduly elaborate.]

THE LEICESTER CEMETERY COMPETITION

Assessor, H. V. Lanchester, 19 Bedford Square, London.

Premiums			£100	o (merging)
99	* *	* *	£50	
**			£25	

Commission, £4 per cent. for the lay-out, and £6 per cent. for chapel, lodges, etc.

The acceptance of a design would be subject to the approval of the plans and estimates by the Minister of Health.

Designs are not to be distinguished by name, device, or motto. Each design will be numbered in the order of its receipt.

Designs, etc., must be delivered, free of cost, at the City Surveyor's Office, Town Hall, Leicester, not later than 12 o'clock noon, on Monday, July 12, 1926.

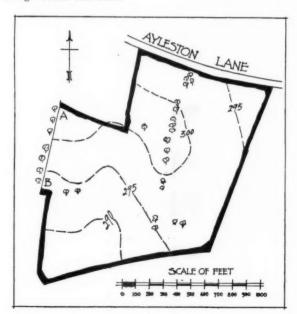
Each set of designs must consist of 1 a block plan to a scale of $s = \frac{1}{3} = 0$, showing the laying-out of the cemetery and the arrangement of the sections, the entrances, avenues, walks, and planting, and the positions of chapel, registrar's and sexton's houses, mortuary, lavatories, and w.c.'s; and also the general scheme of foul, storm, and subsoil drainage, and the following drawings to a scale of $\frac{1}{3}$ in. = 1 ft.

2. Sections of roads and sewers.

3. Such plans, elevations, and sections as are necessary to illustrate the design for chapel, registrar's and sexton's houses, entrance gates, walls, and other buildings in accordance with the requirements. No perspective view is required, but the successful competitor shall prepare a bird's-eye view of his scheme.

All plans, sections, elevations, etc., to be mounted on plain boards or stretchers without frames, with not more than 3 in. of

margin round each sheet.



REQUIREMENTS

The area of the site is 41a. 3r. 22p., and the ground available for interments is to provide for 42,560 graves.

The cemetery is to be surrounded by a 30 ft. belt of trees, which will be planted by the Corporation, and shrubberies and plantations are to be formed where desirable for the purpose of shelter or effect, except that portion A to B marked on plan.

It would be desirable to retain the trees shown in so far as they do not conflict with the competitor's scheme for laying out the ground.

The chapel must be so designed and placed as to allow for the addition of a second chapel when found necessary, and shall contain a floor area of about 1,000 sq. ft., with a portico and yestry.

Near the main entrance a dwelling-house for the registrar is to be provided, containing dining-room, breakfast room, kitchen, scullery, larder, three bedrooms, bathroom, and lavatory. In connection therewith a committee room of an area of 260 sq. ft., also a sexton's lodge containing six rooms, with the usual out-offices. A stable and loose box, tool shed, greenhouse, cold frames and cart-shed are required.

In a convenient position near the chapel, a mortuary, a sexton's waiting-room, and a bier shed with w.c.'s and urinals for men in proximity thereto, and at least two w.c.'s to be provided for women, with a private entrance and approach.

The north side of Aylestone Lane is being developed as a municipal housing estate, and it is desired that the main entrance to the cemetery should be of an orderly and dignified character, with entrance gates and a private door for the registrar. The treatment of the Aylestone Lane frontage generally is not to be unduly elaborate.

All inquiries upon points under the conditions of competition must reach the assessor not later than April 30, 1926. To be addressed: The Assessor Saffron Hill Cemetery Competition, Town Hall, Leicester.

COMPETITION CALENDAR

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

Friday, April 30. New interior design for Wagon-Lits. Premiums, 100,000 francs, 25,000 francs, 10,000 francs, and 5,000 francs. Particulars from La Compagnie des Wagons-Lits, 49 Rue de l'Arcade, Paris.

Monday, May 10. Isolation Hospital for Infectious Diseases, Doncaster. Assessor, Mr. T. R. Milburn, F.R.I.B.A. Particulars from Mr. W. Bagshaw, Town Clerk. Deposit £1 1s.

Friday, May 21. Elementary school, Bristnall Hall Lane, Warley, Worcestershire, for the Oldbury U.D.C. Assessor, Mr. W. S. Skinner, F.R.I.B.A. Premiums, £200, £100, and £50. Particulars from Mr. Arthur Culwick, Clerk to the Council, Council Offices, Oldbury, Worcs. Deposit £2 28.

Monday, June 14. Dance Hall, Restaurant, Pavilion, and Shops at the Sea Beach, Aberdeen, for the Town Council. Assessor, the President of the Incorporation of Architects in Scotland. Particulars from Mr. A. B. Gardner, Town House, Aberdeen.

Saturday, July 31. Australian National War Memorial, Villers Bretonneux, France. Open to Australians. Particulars from High Commissioner's Office, Australia House, Strand. Deposit £2 25.

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

June 21-23. Royal Society of Arts: Competition for Industria
Designs. Particulars from the Secretary of the Society, Adelphi,
W.C.2.

Monday, July 12. Royal National Eisteddfod of Wales, Swansea, Competitions: (1) National Parliament House of Wales (Prize, £100; (2) Street Façade to a Large Stores (Prize, £25); (3) Set of Measured Drawings of Architecture (Prize, £25). Assessor, Mr. Arthur Keen, F.R.I.B.A. Particulars from the publishers, Messrs. Morgan and Higgs, Heathfield Street, Swansea (1s. 2d. post paid).

Monday, July 12. Lay-out for new cemetery for Leicester City Council.

Assessor, Mr. H. V. Lanchester, F.R.I.B.A. Premiums, £100, £50, and £25. Particulars from the City Surveyor. Deposit £1.



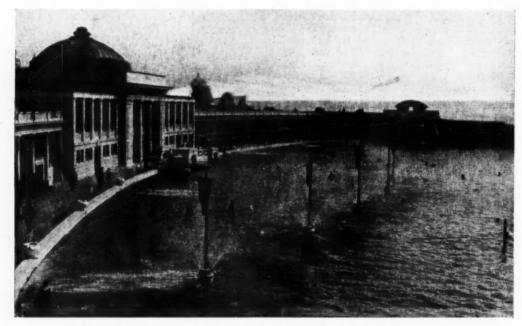
SPORT AND RECREATIONAL BUILDINGS

BY EDWARD R. BILL

V: SEA-BATHING POOLS

Unless it is proposed to rely entirely upon gravitation and the tides for supplying water, the situation of the bathing-pool on the shore will be governed largely by the following considerations: convenient accessibility for bathers, the position of the town's amusement centre, natural shelter from cold winds and gales, and isolation from all sources of water pollution such as

sewage and factory outfalls or contamination brought in from elsewhere by the tides. Water taken from spots quite close together will often disclose upon analysis a surprising difference both in quality and condition, which will materially affect the cost of filtering and chemical treatment as well as the area of the settling tanks and sumps. The water, after being raised from the sea by electrically-driven pumps through iron inlet pipes, fitted with domed perforated iron strainers to exclude solids, generally passes



Blackpool open-air bath, the largest and probably one of the finest in the world. It cost over £80,000, and is built of reinforced concrete, and faced with white glazed faience ware. Above, a bird's-eye view. Below, a view looking south, showing the bathers' parade, spectators' balconies, café, and administrative department. The championship area is seen on the right, divided off by chains. At the base of the flag-poles are sprays by which fresh water is admitted to the pool.

into settling tanks holding perhaps half a million gallons, from whence it flows into the filters where it is chemically purified. From the filters it is pumped into the pool through various devices, such as fountain sprays and cascades. By this means it is aerated, and at the same time used as an aquatic attraction. The supply and discharge are controlled by various separate sluices, and the overflow, which is very seldom required, is arranged by ducts leading from the scum-channel around the pool to the sump pits, and from there it passes out to sea again. Clean water is admitted to the settling tanks while the tide is high, and the ebb is utilized to carry off the waste and cleanse the bottom.

The area of the pool will naturally depend upon local requirements. The largest in England is 60,000 sq. ft. in area, 376 ft. long, and 172 ft. wide. The best shape is probably an oval, as this avoids any space to be wasted by corners. The depths must be arranged to suit the requirements of the several classes of bathers, The area reserved for children and for instruction in swimming varies from 1 ft. 6 in. to 4 ft. 6 in. deep. The championship area should run the full length of the pool, and vary in

are to be preferred. The method of constructing the pool follows the lines of an ordinary public bath. Around the water's edge at frequent intervals should be flights of wooden steps, with handrails on each side, for exit from the water, and here and there a flight of glazed steps with oak chequered treads may be provided. The bathers' promenade around the pool may be paved with granolithic, or one of the many patent floorings suitable for outside use. Around the edge of the pool will be a grooved glazed-ware tread about 18 in. wide, slightly raised above the promenade level, and having oak mats at distances of about 5 ft. apart. The scum-channel should be of glazed ware, with outlets into pipes leading to the sump pits.

The entrances and exits to the pool should be through turnstiles, and at each entrance should be a ticket office fitted up with an automatic ticket-issuer producing any number of tickets up to, say, five of any one class, upon one depression of the appropriate lever. Immediately inside the turnstiles should be the costume and towel-hiring offices, with the necessary storerooms and a room for depositing valuables. Cloakroom and w.c.



Harrow. A fine bath in ideal surroundings.

depth from 4 ft. 6 in. to 5 ft. 6 in. The area reserved as a divingpool should shelve from about 6 ft. deep under the diving stage end to 15 ft. in the deepest part, 20 ft. in front. The diving stage may comprise two spring-boards at heights above the water of one and three metres respectively, and five firm boards, the highest of which may rise ten metres (32 ft. 6 in.) above the water. The lines of demarkation between the areas allocated to the several classes of bathers should be indicated by a chain fence supported on buoys upon which the depths are painted. One or more shower baths are necessary, and these may be arranged to contribute architectural effect in the form of circular tempietto, with the tanks in the roof. A few gliding chutes down which flows a constant film of water are very desirable additions to the attractions of the pool. The sides of the pool should be lined with glazed bricks or tiles, white, or of a light colour. The bottom is sometimes finished in cement or granolithic paving, coloured white, but when expenditure will admit white glazed bricks

accommodation for each sex must be provided for the bathers, in addition to that made for the spectators. Towels and costumes are handed in on the way to the exits, thus very careful planning is needed to avoid unnecessary duplication of the staff for this purpose. Generally the laundry work is done elsewhere, but where it is desired to do this on the premises a small laundry must be included in the accommodation. A pool accommodating 1,500 bathers at one time should have about 300 dressing-boxes for each sex, arranged at opposite ends of the bath, and each box should be fitted with a seat and with hooks for clothing. The doors should be 6 in. short at top and bottom for ventilation and cleaning purposes. At the door of the corridor to the dressing-boxes and opening on to the bathers' parade, foot-baths are necessary for the compulsory washing of the bather's feet under supervision before entering the pool. In addition to the dressingboxes, separate rooms for boy and girl scholars are often included. A small coffee-bar, readily accessible from the dressing-boxes



and the pool, is required for each sex. An important point is the provision of a sunk alley along the side of the championship area, through which officials can pass up and down without interfering with the view of the pool from the spectators' seats. This alley is also much appreciated by the lady bathers, who are thus kept at some little distance away from the front row of seats.

In a large bathing pool accommodation for upwards of 8,000 spectators may be required. The greater part of this accommodation should be under cover. Upon a terraced amphitheatre of concrete steps each, perhaps, to in. high, wooden seats may be provided. The seats should not be fixed, so that in winter they can be taken indoors and stored under cover. Each terrace must be wide enough to allow of passage space in front of the seated spectators, and gangways are required at frequent intervals to connect the tiers. Any columns, masts, or piers supporting the roof should be kept as few in number as possible, and

they should be small. A useful and pleasing adjunct may be obtained by a covered promenade, not less than 15 ft. wide, above the ceiling of the dressing-boxes, with one row of park seats overlooking the pool, and protected by a low parapet wall. Opening on to this promenade on the farther side from the pool may be shops, cafés, fancy stalls, and amusement shows, while a central café with bar and open-air refreshment gardens would form a culminating feature. A flat roof provides an admirable lounge and promenade, and when completed with a bandstand or orchestra becomes a valuable asset to the revenue.

Messrooms and cloakrooms for the attendants, and offices and lavatories for the superintendent and his staff of clerks are sometimes necessary in the larger schemes. A first-aid room is very necessary, and should be fitted up with a slipper bath, having hot and cold water, a gas stove, and a medicine cupboard, while near at hand should be a telephone.

The method of construction will naturally vary with individual



Above, the open-air sea-water swimming-bath at Southend-on-Sea, Essex.

The gliding chutes are shown at the end of the bath. Below, the children's paddling pool, West Bay, Dunoon. This is a good example of a reinforced concrete pond. The floor is sunk 6 ft. below the general ground level.

requirements, but reinforced concrete has too many advantages to be ignored, while for external architectural treatment, some kind of glazed faience ware (not necessarily white) has much to recommend it. Where the enclosing wall serves at times as a sea-retaining wall it may with advantage be bellied out towards the sea, and thus divert the pressure of the waves to a considerable extent. Before any imported stone or slate is used on the exterior its behaviour under seaside conditions must be carefully ascertained. The greater initial cost of materials requiring the minimum of painting will usually be justified from an economic

standpoint. Iron or steel construction in direct contact with the sea should be frequently painted or it will rapidly deteriorate.

The floor of the children's paddling pool, Dunoon (page 664), is divided into panels 40 ft. by 18 ft., and is 4 in. thick and reinforced with one layer of No. 14 B.R.C. Fabric. The continuous embankment slab forming tiers at base is reinforced with one layer of No. 9 B.R.C. Fabric. The floor is sunk below the general level to a depth of 6 ft. The illustration of the Harrow bath (page 663) is reproduced by courtesy of the British Portland Cement Association, Ltd.

THE ARCHITECTS' INCOME TAX

BY OUR FINANCIAL CORRESPONDENT

iii: TAX RECOVERABLE ON RETIREMENT

Sooner or later every architect must retire from the profession, and when this date has been definitely established it will be very important for the taxpayer to consider his income tax figures for the past six years, especially if the profits have been dwindling during the last three years.

Apart from the fixed allowances and reliefs, which are given to taxpayers assessed under schedule D (profits, etc.), particulars of which are set out in part ii (schedule D) of the notes accompanying this Form of Return, there are many other circumstances arising from time to time, during the course of professional work, etc., when other relief is afforded by the various Income Tax Acts, and with which the layman is not usually conversant.

The following are the chief circumstances in which an application may be preferred for adjustment of an assessment under schedule D:

1. Where a loss has been sustained during the year of assessment, a claim may be put forward, within twelve months after the end of the year of assessment, to be repaid the tax on the amount of the loss, but only to the extent of tax actually paid on the existing assessment or assessments for the year. The amount of the loss upon which tax has been recovered cannot be brought into future averages.

2. Where a person charged or chargeable with tax in respect of any profession or business which has been set up, or commenced within the period of the three years upon the average of which the profits are taken, or within the year of assessment that the actual profits, etc., fall short of those computed in accordance with the Act, then he shall be entitled to be charged on the actual and not the average.

3. A person who has succeeded to a trade or profession is liable to pay the full tax without new assessment, and no relief is granted unless the person so succeeding proves that the profits, etc., have fallen short from some specific cause, or by reason of the succession.

4. Where a person ceases to carry on a trade or profession in any year he shall be entitled to be charged:

(a) On the actual for that year (if lower than the average).
(b) Shall also, if he proves that the total amount of tax paid for the three previous years, in respect of such trade or profession, exceeds the total which would have been paid if he had been assessed on the actual for these three years, be entitled to the repayment of the excess.

5. In the event of a person charged ceasing to carry on a trade, profession, etc., or becoming bankrupt, or from any other specific cause being deprived of or losing the profits, etc., on which the computation of tax was made (provided he has not continued to carry on the said trade, profession, etc.), the General Commissioners, in proof of their satisfaction that the circumstances appear to give just cause for the assessment to be amended or vacated, shall direct that relief be given, if necessary, to him or his executors or administrators.

6. In the event of a person charged under schedule D

alleging that the assessment made was excessive by reason of some mistake or error in the return or statement made.

Any special applications for adjustment with reference to the above should be made to the Inspector of Taxes for the district in which the assessment is made. Applications must be made as follows in respect of:

1. Within one year after end of year of assessment.

2. Ditto.

3. Within six years.

4. Ditto.

10

Under (a) as above

Under (b) as above

5. Same as 1.

6. Within three years after the end of the year of assessment within which the assessment was made.

The section being dealt with in this article is, therefore, No. 4, viz. Retirement.

For the purpose of example, let it be presumed that the following were the profits after adjustment for income tax purposes :

Year ended April 5, 1921, £390; 1922, £304; 1923, £210; 1924, £190; 1925, £170; and 1926, £140.

Then the following would have been the assessments for 1922-23, 1923-24, 1924-25, 1925-26, thus:

1922-23. Year ended April 5, 1921, £390; 1922, £304; 1923,

£210. Total for three years, £904; average, £301. 1923-24. Year ended April 5, 1922, £304; 1923, £210; 1924, £190. Total for three years, £704; average, £235.

1924-25. Year ended April 5, 1923, £210; 1924, £190; 1925, £170. Total for three years, £570; average, £190.

1925-26. Year ended April 5, 1924, £190; 1925, £170; 1926, £140. Total for three years, £500; average £167.

A claim under this head would be, therefore, for a refund of tax amounting to £42 15s. 6d., arrived at as follows:

Assessment for 1925-26 on average, £167;

,, actual £140; Reduction in assessment, £27. Claim under (a), £27 at 4s. in the £, £5. 8s.

Tax on Average Profits 1922-23. £301 at 5s. . . . £75 5 0

923-24.	£235 at 4s.	6d.	0.0	 52	17	6	
924-25.	£190 at 4s.	6d.		 42	15	0	
*				£170	17	6	
Less	tax on actual	profits (as	below)	133	-		
Clair	n under (b)			 37	7	6	
	Tax	on Actual	Profits				
922-23.	£210 at 5s.			 £52	10	0	
923-24.	£190 at 4s.	6d.		 42	15	0	
924-25.	£170 at 4s.	6d.		 38	5	0	
al alaim	C 6d	nin .		£133	10	0	
u ciaim,	£42 15s. 6d	y VIL.					

£5 8

37 7

£42 15 6

LITERATURE

ENGLISH FURNITURE

LOOKING through Mr. Francis Lenygon's book, Furniture in England from 1660 to 1760, the thought strikes one that the furniture designers of past times had the advantage of a greater freedom as compared with the designers of to-day. They were unhampered to a large extent by tradition—though they used traditional forms—theoretical æsthetics, the grammar of design, expense, criticism, and the hundred-and-one hindrances by which the modern designer is beset. In these critical times a man has to have the courage of a lion to embark on any creative work at all. But in the past the designer could do much as he liked. He could use an order here, an order there, cover any blank

space with decoration, or not, and generally run riot as the spirit led him. The result was that though his designs very often had no functional expression, and did not obey all the rules of composition, they did attain a certain degree of unstudied effectuality, simply by the use of almost rule-ofthumb methods and a sense of artistic freedom.

Mr. Lenygon wisely does not attempt to criticize or define the artistic merits of the various styles of furniture design. It is more satisfactory, in a book of this kind, to arrive at one's own conclusions. He devotes a chapter to each of the three periods which fall within the years under review, tracing and describing the various influences which so strongly affected the development of design in this country. Nor does he digress upon details of con-





Left, a china cabinet in the Chinese manner, from the collection of the late Colonel H. H. Mulliner. Right, a guerdon from Windsor Castle, overlaid with embossed silver. Both examples belong to the latter half of the eighteenth century. From Furniture in England from 1660 to 1760.



A bookcase in oak, in the collection of Messrs. Lenygon and Morant. Date about 1720. (From Mr. Francis Lenygon's Furniture in England from 1660 to 1760.)

struction or descriptions of individual examples of furniture, but rather considers the historical aspect of the subject, making interesting references to letters and diaries that deal with the subject. As he points out in his preface, "The character of furniture is closely interwoven with social history; in its different types, shapes, and ornamentation are reflected contemporary manners and customs and the changing fashions of the day. In no period is this more clearly illustrated than between the years 1660 and 1760." It is remarkable how much the character of the furniture of the different periods does seem to be linked with the social history and manners of the time. It would make an interesting exercise, supposing one had little knowledge of furniture, to try and place the dates of the various styles simply by making a study of each piece. The rich and elaborate design of an armchair of the period just after the Restoration, for example, is almost as conclusive a proof of the extravagance of the time as a statement in words.

The author has very evidently been at pains in making a selection of furniture for illustration in this book, and has gleaned from many collections some of the best examples that are to be found in this country. The chapter dealing with mirrors—to take one of many instances of Mr. Lenygon's industry-contains quite a remarkable array of fine pieces. The mirror can be as pleasing a piece of work as almost any type of furniture. Describing the history of the mirror, Mr. Lenygon points out that it was in Venice that the making of glass mirrors was largely developed. "The republic enjoyed a large and lucrative monopoly of this manufacture for a considerable period, and jealously guarded the secret. In the latter part of the seventeenth century both France and England attempted to rival the Murano industry. The French minister, Colbert, induced, in 1665, twenty Venetian glass-mirror makers to emigrate to France. . . . In England the art was also an imported one. A certain Sir Robert Mansel, who obtained the first patent (in 1615) for the manufacture of mirrors, claims nine years later that he did 'bring into the kingdome many expert strangers from forraigne parts beyond the seas to instruct the natives of this kingdome in the making of looking-glass plates,' but the finest mirrors continued to be imported. . . . During the period of Dutch and Franco-Dutch influence mirrors were an essential feature of the decoration of English reception rooms, especially from the date of the Duke of Buckingham's plate-glass factory at Vauxhall, which was

established in or about 1670.... The business was carried on with 'amazing success' until late in the eighteenth century, when the works were stopped owing to a difference with the workmen.... The value and importance of mirrors is shown by the fact that they were given as presents to royal personages."

This is the second edition of this work (making the third impression) and forms the third volume of Messrs. Batsford's library of decorative art. Several additions have been made to the former edition, including further examples of furniture design by eighteenth-century designers.

Furniture in England from 1660 to 1760. By Francis Lenygon. Second edition (revised). B. T. Batsford, Ltd. £2 10s. net.

[PUBLICATIONS RECEIVED

Sketching in Lead Pencil. By JASPER SALWEY, A.R.I.B.A. Batsford. 7s. 6d. net.

Pre-Hellenic Architecture in the Ægean. By EDWARD BELL, M.A., F.S.A. G. Bell and Sons. 8s. 6d. net.

The "Practical Engineer" Mechanical Pocket Book and Diary, 1926.

London: Humphrey Milford, The Oxford University Press.

Price 2s. 6d. net (cloth), and 3s. net (pluviusine).

CORRESPONDENCE

THE LAY-OUT OF EXHIBITION STANDS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—Since I feel that the Building Exhibition is a splendid institution for imparting information which would be difficult to obtain elsewhere, I whole-heartedly endorse the views expressed by "Astragal" and by Mr. William Harvey in THE ARCHITECTS' JOURNAL for April 21 as to the desirability of improving the lay-out of the exhibits for "accessibility and visibility."

As regards eyestrain, my experience is that under normal conditions our eyes select, if possible, some object immediately in front of us and become focussed directly upon it. Objects to right and left are less vigorously impressed upon our vision, and are relatively indistinct. In the very special circumstances attending a visit to an exhibition laid out with stalls on either side of a long, straight avenue the eyes have to be forced to concentrate upon objects which would normally be just at the margin of their field, and their nervous mechanism is strained and fatigued by the unusual exertion. A special cause of strain is the speedy change of focus made necessary in reading names or examining multi-coloured objects presented in planes almost parallel to the line of sight. The colours or letters are crowded together in rapidly diminishing perspective, and the distance from the eye to the nearest is so much less than the distance from it to the farthest that distinct efforts are necessary to focus upon both almost simultaneously.

Our eyes being spaced some little distance apart, objects to left or right of the line of vision are nearer to one eye than to the other, and this adversely affects their stereoscopic adjustment. These considerations should make the planner of an exhibition very reluctant to adopt a series of long avenues as the basis of his scheme.

As regard accessibility, I tried the effect of tinting the plans of the stalls on the plan from the catalogue, using twelve different colours to represent the more important of the different classes of exhibits. The result was a patchwork in which the colours were sprinkled impartially from side to side and end to end of the plan.

The only exception was the series of yellow spots I had smudged on to represent the stalls of manufacturers of stoves and heating

These are to be found principally, though not entirely, at the side walls of the hall where provision can be made for flues to extract the products of combustion.

On looking at my coloured plan I could not help recognizing the pertinence of the suggestion contained in Mr. Harvey's constructively critical essay, and agreeing with him that the "grouping of similar classes of exhibits in stalls arranged in courtyard form solves at once the practical problems of visibility and accessibility, and brings the other artistic problems of balance of mass and of colour within range of a possible satisfactory solution."

When the next Building Exhibition is held the promoter and the intending exhibitors should certainly adopt this system. The general plan of former building exhibitions has been repeated year after year, with minor shufflings of the positions of some of the stalls.

ONLOOKER

THE TROUBLES OF THE PAINTERS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,-Mr. Herbert Furst's genial letter which appeared in the last issue of your JOURNAL raises some very important points. His defence of the painters is a quite admirable one in so far as he insists that the arrangement or composition of a painting is an essential factor without which it cannot be regarded as a work of art, and I do not think that any architects would disagree with his assertion that it is possible to make a very bad picture out of a good architectural subject if the arrangement of the forms within the rectangular boundary of the frame is clumsily contrived. Nor need we deny that it is possible to make a beautiful picture out of a pigsty, for even a pigsty has its appropriate design which may give it a measure of beauty, and pigs, as everybody knows, are highly-attractive and interesting creatures. where I feel compelled to disagree with Mr. Furst is that I deny that it is possible to make a beautiful picture from an incompetently and vulgarly designed cathedral, or from an incompetently and vulgarly designed pigsty. It appears to me that in half the criticism of to-day the essential distinction between what I may describe as the primary and secondary arts is not recognized. By the primary arts I mean those in which the artist is engaged creating objects which are not copies of anything else, but consist in a subject which is their social use or purpose, and a form which is derived from what Mr. Furst calls "the arrangement of their parts." Thus dress, architecture, the design of furniture, and of the ordinary utensils of life are primary arts, but when we come to painting and sculpture, which are representational or secondary arts, the case is different, because here the subject has a dual aspect, for we have, as it were, a subject within a subject, and a form within a form. In the case, for instance, of the picture of St. Paul's Cathedral, the subjectival content not only includes the cultural use to which the picture may be put, but is also enriched by the associations connected with St. Paul's Cathedral, while the formal content of the picture includes, not only the arrangement of the Cathedral within the rectangular outlines of the frame, but also the formal qualities of the building itself, and if these latter had been lacking in grace and subtlety no skilful pictorial arrangement would have made the picture a great one. The theory that arrangement is all that matters in a work of art if applied to literature leads to some peculiar results. One might have two verses of exactly similar length and metre with rhymes in the same places, yet one might be sense and the other nonsense. It is the nonsensical character of so much modern painting that causes distress in many quarters. Mr. Furst accuses me of exalting architecture above painting, but while I would still maintain that painting as a secondary art has a duty to architecture, a primary one, I do not contend that the social function of painting is limited by this obligation, for it has many other cultural aims to serve besides. I am content to claim that if the art of painting neglects to celebrate the beauty of architecture it has wilfully deprived itself of one of the principal sources of its inspiration. ASTRAGAL.

THE NEW A.R.A.'S

At a general assembly of Academicians and Associates held last week, Mr. Walter Tapper, architect, and Mr. Charles S. Jagger, sculptor, were elected Associates of the Royal Academy.

Mr. Walter Tapper was a pupil of Bodley, and has attained reputation as a church architect. One of his best works is a brick church in the Gothic manner in a street near the Marble Arch.

Mr. Charles Sargeant Jagger, whose most prominent work is the Artillery Memorial at Hyde Park Corner, must be one of the youngest men of the time to become an A.R.A. After studying at Sheffield and the Royal College of Arts he won the Rome Prize in Sculpture in 1914, and since the war has accepted many commissions throughout the country for memorials to the fallen.

COMPETITION AWARDS

THE PUBLIC HALL, TOPSHAM

First: Messrs. Boddy and Dempster, F. & A.R.I.B.A., London; second: Mr. F. S. Swash, Newport, Mon.; and, third: Mr. J. G. Russell, Newport, Mon.

CHINGFORD WESLEYAN CHURCH

Messrs. George Baines and Son, FF.R.I.B.A., have been placed first.

NEW OFFICES FOR THE WEST BROMWICH PERMANENT BUILDING SOCIETY

Messrs. John B. Surman and William T. Benslyn, AA.R.I.B.A., have been placed first. Assessor, Mr. W. Alexander Harvey, F.R.I.B.A.

PRETORIA TOWN HALL

First: Messrs. F. Gordon McIntosh and J. Lockwood Hall, F.R.I.B.A. Second: Messrs. Harold Porter, M.S.A., and A. Stanley Turner, A.R.I.B.A. Third: Messrs. Deuchars and Pease, AA.R.I.B.A. Assessor, Mr. E. Vincent Harris, F.R.I,B.A.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for the Architects' journal, by permission of the Controller of H.M. Stationery Office, by our own patent expert. All inquiries concerning patents and specifications should be addressed to the Editor, 9 Queen Anne's Gate, Westminster, S.W.I. For copies of the full specifications here enumerated readers should apply to the Patent Office, 25 Southampton Buildings, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

8821.—Adam, J.—Re-facing stone buildings. April 1.

8848.—Jones, A. E. E.—Smoke flues for buildings. April 1.

8599.—Jones, D. Palmer.—Suspended scaffolds. March 30.

8824.-MacKenzie, K. D.-Walls, &c. April 1.

8721.—Rawlings, G. W.—Concrete structures. March 31.

9105.-Ewart, J. E.-Ventilation of factories. April 6.

8938.—Kurnatowski, W.—Building composition. April 6.

9145, 9146.—Lyne, R. J., and Midgley, C. A.—Means for building concrete, &c., structures. April 7.

9100, 9101.—Macomber, S.—Structural units. April 6. 8997.—Whiteman, J. T.—Wall ties. April 6.

SPECIFICATIONS PUBLISHED

239512.-Kupelwieser, Dr. H.-Concrete walls. 249233.—Scott, W.—Method of building-construction.

249273.—Whitmore, T. G.—Casting of concrete constructions in situ.

249394.-Metal Forms Corporation.-Shuttering for casting concrete walls in situ.

249701.—Tattersall, A. B.—System of building construction.

243363, 249777.- Junkers, H.-Metal lattice-work skeletons for buildings.

249776.—Reed, W.—Damp-proof sheets for walls of houses.

ABSTRACTS PUBLISHED

247327.—Roberts, E. W.—Floors and ceilings.

247499.—Chatwood Safe Co., Ltd., and Bruckshaw, H. S.-Reinforcements for concrete.

SOCIETIES AND INSTITUTIONS

National Housing and Town Planning Council

The National Housing and Town Planning Council has arranged to hold, as in previous years, a series of regional conferences with local authorities in different parts of England and Wales. The centres to be visited this year are London, Manchester, Leeds, Birmingham, Newcastle-upon-Tyne, Exeter, Southampton, Norwich, and Cardiff. The agenda for the conferences embraces many important subjects, including the administration of the Housing Acts, the maintenance of good standards of planning and design, the amelioration of slum areas, the rural housing problem, and town and regional planning. Full particulars may be obtained on application to the Council's offices, at 41 Russell Square, London, W.C.1.

The Berkshire Society of Architects

At the sixth annual meeting of the Berkshire Society of Architects. held at Reading University, the following officers were elected for the year 1926: Messrs. J. G. T. West, F.R.I.B.A., chairman; H. Hutt, F.R.I.B.A., vice-chairman; H. Whiteman Rising, F.R.I.B.A., hon. librarian; W. R. Morris, L.R.I.B.A., hon. treasurer; C. B. Willcocks, F.R.I.B.A., W. J. Freeman, A.R.I.B.A., hon. secretaries; A. S. Cox, F.S.I., L.R.I.B.A., E. P. Morgan, L.R.I.B.A., hon. auditors; W. Galt Millar, F.S.I., J. T. Saunders, F.R.I.B.A., W. R. Howell, F.R.I.B.A., S. E. Burrett, four members. The following members were nominated to represent the Society on the Council of the Berks, Bucks, and Oxon Architectural Association: Messrs. E. P. Warren, F.S.A., F.R.I.B.A., W. Galt Millar, F.S.I., W. R. Howell, F.R.I.B.A., F. H. Floyd, F.R.I.B.A., H. Hutt, F.R.I.B.A., C. B. Willcocks, F.R.I.B.A., H. W. Rogerson. The prizes offered by the Berks Archæological Society for measured drawings of old buildings were awarded as follows: First prize, £2 2s., to Mr. R. P. Walden, for drawings of St. Leonard's Chapel, Henley Parish Church. Second prize, £1 1s., to Mr. P. G. J. Carter, for drawings of the old stables, Bucklebury House, Berks.

The New Metro-Vick Offices

The London office and erection staff of the Metropolitan-Vickers Electrical Co., Ltd., and head office and London office of Metro-Vick Supplies, Ltd., have moved from 4 Central Buildings, Westminster, to more convenient and larger premises at 145 Charing Cross Road. It is curious to note how, in London, the commercial centre of the world, various industries and professions have tended to congregate in particular areas. Charing Cross Road a comparatively few years ago was a narrow, unimportant street, consisting of a number of rather squalid houses with an excessive number of tayerns, but has now become one of London's main arterial roadways, linking Trafalgar Square to New Oxford Street. Metro-Vick House is situated about one hundred yards from the junction with Oxford Street, and its tower will be a conspicuous feature in the neighbourhood. It is about one minute's walk from Tottenham Court Road Underground Station, from which all the main railway terminal stations are easily accessible, and any part of London or Greater London may be conveniently reached by interchanging at the necessary stations without coming into the street. Many services of motor buses pass the door.

CORRIGENDA

In our issue for March 31, page 495, we stated that Messrs. J. H. Sankey & Co., Ltd., supplied the hollow walling tiles for the Civil Service sports pavilion at Chiswick. The name of the firm should read Messrs. J. H. Sankey and Son, Ltd.

In our issue for April 14, page 582, it was stated that the Tibbenham Construction Company, Ltd., were exhibiting models of their houses on the stand of the Novocrete and Cement Products Company, Ltd. (Row R, Stand 271), at the Building Exhibition. This is incorrect. The Tibbenham Construction Company, Ltd. are not exhibiting at the Exhibition.

THE WEEK'S BUILDING NEWS

A New Synagogue for Fulham

A Jewish synagogue and school are to be built in Lillie Road, Fulham.

Enlargements to Limehouse Electrical Works

The Limehouse generating station is to be enlarged at a cost of £400,000.

Housing at Hendon

The plans of 161 houses have been approved by the Hendon Council.

Housing at Cork

The Cork County Borough Council has decided to proceed with the erection of 158 houses.

Housing at Surbiton

Plans for the erection of 180 houses on the Egmont Estate, Tolworth, have been approved by the Surbiton Council:

Housing at St. Albans

The St. Albans Housing Committee has received sanction to grant subsidies for the erection of 200 houses by private enterprise.

An Irish Housing Scheme

The Ballymena Rural District Council has decided to build 175 labourers' cottages at an estimated cost of £60,033.

Road-widening at Woolwich

The Woolwich Borough Council is spending £17,000 in widening Footscray Road, Eltham.

Extensions to Hull Infirmary

A scheme to raise £100,000 for the extension of Hull Royal Infirmary will be launched shortly.

Improvements at Shoreditch

The L.C.C. are preparing a scheme to cost £85,000 for the further widening of Shoreditch.

More Houses for Greenwich

The Greenwich Council are building 100 houses on Twenty-Acre Field site, Shooters Hill Road.

Housing at Warrington

The plans of 157 houses in and between Alder Lane and Shaw's Avenue have been approved by the Warrington Town Council.

An Aberdeen Housing Scheme

The Scottish Board of Health has consented to the borrowing of £355,000 by the Aberdeen Local Authority for housing schemes.

A Selkirk Housing Scheme

The Selkirk Town Council has decided to erect twenty-eight three-roomed houses in connection with the borough housing scheme. A Ten Years' Building Programme

During the course of the next ten years it is hoped to build 9,362 houses at Wolverhampton at a cost of something like £4,000,000.

Housing Progress at Colchester

The Colchester Town Council is applying to the Ministry of Health for sanction to borrow £25,170 for the erection of fifty-one houses at Lexden.

Housing at Featherstone

The Featherstone Urban District Council is applying for sanction to borrow £21,940 for the erection of fifty houses at Streethouse.

Housing at Gosforth

The Gosforth Urban District Council has secured permission to borrow £34,280 for the erection of eighty-four houses at Coxlodge.

A Thameside Housing Scheme

The Esher Urban District Council has instructed the surveyor to prepare a scheme for the erection of dwellings on the Greenwood Lodge Estate, Thames Ditton.

London's Largest Cinema

The construction of what will be the biggest cinema in London has been begun at the Oxford Street end of Charing Cross Road. The cost will be £150,000. Mr. Edward A. Stone is the architect.

Reconstruction Schemes in Dublin

The Commissioners for the County Borough of Dublin have applied to the Minister for Local Government and Public Health for sanction to borrow £145,000 for reconstruction and housing purposes in Dublin.

Housing Progress at Pontefract

Plans and estimates have been approved by the Pontefract Corporation for the construction of roads and sewers on the Baghill housing site, at a cost of £15,081; 272 houses are to be erected on this estate.

Wakefield Improvement Schemes

The Wakefield Corporation has decided to proceed with a scheme for the erection of 1,000 houses. A scheme for a joint fever hospital and sanatorium is also to be prepared, with accommodation for ninety beds.

Bridge Reconstruction at Derby

The Derby County Council has decided to carry out the reconstruction of Hazleford Bridge at Hathersage, and Cuttle Bridge, Swakestone, at an estimated cost of £22,500 and £5,915 respectively.

Burton Improvement Schemes

The Burton Town Council has approved of schemes costing nearly £200,000, which include the building of 192 houses, renovations to the electricity works, and the extension of mains in South Derbyshire.

Two Macclesfield Housing Schemes

The Macclesfield Rural District Council has two proposals under consideration, one for the erection of 128 houses in the townships of Adlington and Butley, the other for the erection of 230 houses off the London Road, Poynton.

Bath Improvement Schemes

A scheme for the demolition of the old bridge at Bath, and the construction of a new bridge, at an estimated cost of £50,000, has been adopted by the City Council. The Dolemeads improvement scheme, estimated to cost £124,000, has also been approved.

Extension Proposals at North Berwick

The North Berwick Burgh Extension Order, 1926, which has been the subject of an inquiry at Edinburgh, seeks to add to the town two extensions, one on the west, of 733 acres, and one on the south, of 190 acres. A part of one of these is to be used for housing purposes.

A Library for Kirkcaldy

A gift of a public library has been made to Kirkcaldy by Mr. John Nairn, of Forth Park. The new building, which it is estimated will cost something in the region of £40,000, will be erected immediately to the east of the new museum and art gallery.

A Big Scottish Building Programme

The Clydebank Town Council proposes to proceed with a scheme for the erection of 170 concrete bungalows at West Kilbowie. Further developments are to take place at Whitecrook, where 100 Atholl houses and 120 of other types are to be erected, and negotiations are nearing completion for the acquisition of a site at Boquhanran, where it is proposed to erect 600 houses.

A New Argentine Power Station

News received from the Argentine states that work has been begun upon the area to be reclaimed from the river near the new port of Buenos Aires for the purpose of building the new power station of the Hispano-American Electric Company. It will be one of the largest generating stations in the world, eventually developing 650,000 h.p., and the land to be reclaimed will extend over 180,000 square metres.

Housing at Rotherham

The Rotherham Housing Committee is taking steps to build forty-four further houses, and the Ministry of Health has approved the building of that number under the 1924 Housing Act. The erection of 316 houses in various parishes belonging to the Rotherham Rural District Council has also been considered. The amount involved is approximately £150,000.

READERS' QUERIES

THE TRANSFERENCE OF A COTTAGE CHIMNEY

N. L. writes: "The accompanying plan (Fig. 1) shows the flues on the party-wall of a pair of cottages. The cottages are two storeys high. It is desired to plan the flues so that the chimney stack will assume the design shown. Can this be done by corbelling only, or must there be more foundation on each side of the party wall? This would mean extending the nibs and the arches on which the chimney is to stand, and will be costly in brickwork, besides encroaching upon the floor space of the cottages."

The change of position in the chimney can certainly be effected by corbelling if it is not considered desirable to extend the projection of the chimney breasts below. The out-corbelled masses are made to balance about the axis of the party wall, and since equal overturning moments will be created on each side of the wall, these forces can be made to neutralize one another if the masses are adequately connected together. The work must be executed in hard, sound bricks built in tenacious mortar and provided with tensile reinforcement in the joints at suitable places near the tops of the corbels (D, fig. 2).

It will be necessary to bring the flues into their final positions in the stack without diminishing their sectional area, and, if possible, without obtruding the corbelling

FIG.1.

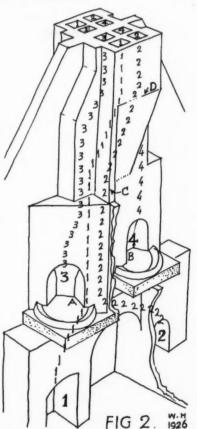
into the interior of the first floor rooms. Fortunately there is ample room in the attic beneath the steeply pitched roof and above the ceiling joists for the whole of the change of position to be brought about there. The method which seems most direct is to lead the flues one and two from the ground floor fireplaces into the outer corners of the stack, and to bring the flues three and four from the first floor fireplaces across over them into the inner positions adjoining the party wall, see fig. 2. This is managed by carrying up the chimneybreasts of fireplaces three and four to the top of the first floor ceiling joists, in the usual way, and then corbelling out flues one and two over the ceiling. Care must be taken to preserve an effective barrier to burning soot between the inside of the flue and the wooden ceiling joists. To this end the brickwork under the sloping parts of the flues may be made more than 4½ in. thick, and rendered on its underside, or the corbelling may be started from a slab of reinforced concrete at ceiling level. Allowing the corbelling to oversail at the rate of two-and-a-half going to three risethe natural rake of brick bond-flues one and two will be in position under their appointed corners of the stack in eight courses net or,

The Editor welcomes readers' enquiries on all matters connected, directly or indirectly, with architectural practice. These enquiries are dealt with by a board of experts to which additions are constantly being made as and when need arises. The two latest recruits are specialists on finance and inventions respectively. Each of these specialists also contributes separate features to the Journal this week. An article on the Architect's Income Tax by our financial expert will be found on page 665, while our patents expert gives a list of new specifications and applications for patents filed.—Ed. A.J.

say, twelve courses to allow of easy bends. Some 3 ft. of attic height will be needed for this operation.

The flues from fireplaces three and four have been gathered over and carried up vertically beside flues one and two up to this They are now made to slope in towards one another across the sloping tops of the out-corbelled portions of flues one and two. At the same rate of slope twoand-a-quarter going to three rise, this operation will take up another 3 ft. of height, and the whole change of plan has been effected in a height of about 6 ft. above the ceiling joists. As the loft is actually 12 ft. high to the apex of the roof, and 10 ft. high at the point where the side of the chimney-stack intersects the underside of the rafters, the corbelling out of flues one and two may be afforded more room. An easier sweep to the flue and stronger bond to the corbelling may be obtained by adopting a rate of one-andone-eighth going to three rise, and taking about 6 ft. over this operation. This leaves 4 ft. for getting flues three and four into position across the bent shoulders of flues one and two.

Incidentally, there is another problem in connection with flues one and two, which would have to travel at an angle of 45 deg. or less to the horizon in getting from their fireplaces over the haunches of the arch into their positions between fireplaces three and four on the first floor. These fireplaces might be spaced a little further apart with advantage to permit of an easier slope to the flues from below, for soot doors in the haunches of the arch would not be welcome additions to the architecture. Another way of gaining a few inches and improving the slope of these flues one and two would be to raise the hearths of fireplaces three and four some 41 in. above floor-line. This can easily be done by making them of bricks on edge with a tilted brick on edge curb. These points are particularly important where a district surveyor is keen upon the letter of his by-laws, though the provision of a good draught in the chimney is the primary object. W. H.



Hearths 3 and 4 raised 4½ in. to give clearance to flues 1 and 2 at points A and B. The half-brick wall C steadies the out-corbelled portion of stack, containing upper parts of flues 1 and 2. At D a course of reinforcement is inserted in the joint to keep the stack together on both sides of party-wall.

RATES OF WAGES

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	DRA	IN	ER					
					-			4 37
LABOURER, 1 1s. 6d. per hou PLUMBER, 1s.	0 413							

Stoneware p	ipes, t	ested	qualit	W. 4 :	in			
per yd.						63	1	3
DO. 6 in., p	er yd.					0	2	8
Do. 9 in., p	er yd.					0	3	6
Cast-iron pi	pes, o	oated.	9 ft.	leng	ths.			
4 in., per	yd.					0	6	9
DO. 6 in., p	er yd.					0	9	2
Portland cer	ment ar	ad san	d, see	"Ex	cavai	or '	' ab	ove.
Lead for cau	lking,	per cu	ot.			£2	5	6
Gaskin, per l						0	0	51
STONEWARE	DRAIN	s. joi	nted i	cen	ent.			
tested pip						0	4	3

DO. 6 in., per ft.				0	5	0	
Do. 9 in., per ft.				0	7	9	
CAST-IRON DRAINS,	jointed	in	lead,				
4 in., per ft.				0	9	0	
Do. 6 in., per ft.				0	11	0	

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

BRICKLAYER

BRICKLAYER, 1s. 1s. 4\flackdd. per hour; so						
		man, re	. 010	. per	100	
London stocks, per M				£4	19	- 0
Flettons, per M				3	0	0
Staffordshire blue, pe	r M.		-	9	19	0
Firebricks, 21 in., pe				11	3	0
Glazed salt, white, an	d inoru	stretch	ers.			
per M				21	10	0
Do. headers, per M.				21	0	0

Colours, extra, per M				10	
Seconds, less, per M. Cement and sand, see "Excar	vator	" ab	ore.	0	0
Lime, grey stone, per ton.			£2	12	0
			1	- 6	
Damp course, in rolls of 41 in.,	per i	roll	0	2	6
Do. 14 in. per roll.			ő		6
DO. 18 in. per roll .			0		
BRICKWORK in stone lime	mort	ar,			
Flettons or equal, per rod			33	0	0
po. in cement do., per rod			36	0	0
Do. in stocks, add 25 per ce		er ro	d.		
po. in blues, add 100 per ce					
po. circular on plan, add 12				op p	ho
FACINGS. FAIR, per ft. sup. ex					
Do. Red Rubbers, gauged			340	U	_
in putty, per ft. extra .			0	4	6
Do. salt, white or ivory glaz					
ft. sup. extra			0	5	6
TUCK POINTING, per ft. sup. 6	xtra		0	0	10
WEATHER POINTING, per ft. su			0	0	3
GRANOLITHIC PAVING, 1 in., p					
sup			0	5	0
		-	0	6	0
			0	7	0
BITUMINOUS DAMP COURSE, 6	X PO	118.			
per ft. sup			0	0	7
ASPHALT (MASTIC) DAMP COUR	ar. 1	in.			
per yd. sup		25519	0	8	0
Do. vertical, per yd. sup.	•			11	-
SLATE DAMP COURSE, per ft.				0	
ASPHALT ROOFING (MASTIC)			0	0	10
thicknesses, # in., per yd			0	8	6
DO. SKIRTING, 6 in.			0	-	11
BREEZE PARTITION BLOCKS,			U	U	11
			0	5	9
Cement, 11 in. per yd. sup.			-	-	6
DO. DO. 3 in			0	0	0

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

MASON

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

Portland Stone: Whitbed, per ft. cube			20	4	4
Basebed, per ft. cube			0	4	7
Balh stone, per ft, cube			0	2	9
Usual trade extras for	large	blocks			
York paving, av. 21 in.			0	6	6
York templates sawn, 1			0	6	9
Slate shelves, rubbed, 1	2	am 66 .	 0	0	63

Hoisting and setting stone	, per	ft.	00		
cube			20	2	2
po. for every 10 ft. above 3	0 ft.,	add	15 p	er c	en
PLAIN face Portland basis, pe	rft.s	up.	£0	2	8
po. circular, per ft. sup.			0	4	0
SUNK FACE, per ft. sup			0	3	9
po, circular, per ft. sup.			0	4	10
JOINTS, arch, per ft. sup.			0	2	6
po. sunk, per ft. sup			0	2	7
po. po. circular, per ft. suj	p		0	4	6
CIRCULAR-CIRCULAR WORK, pe	rft. s	up.	1	2	0
PLAIN MOULDING, straight,	per in	nch			
of girth, per ft. run .			0	1	1
po. circular, do. per ft. run			0	1	4

HALF SAWING, per ft. sup	£0	1	0
Add to the foregoing prices if in	York	st	one
35 per cent.			
Do. Mansfield, 121 per cent.			
Deduct for Bath, 331 per cent.			
Do. for Chilmark, 5 per cent.			
SETTING 1 in. slate shelving in cement,			
per ft. sup	£0	0	6
RUBBED round nosing to do., per ft.			
lin	0	0	6
YORK STEPS, rubbed T. & R., ft. cub.			
fixed	1	9	0
YORK SILLS, W. & T., ft. cub. fixed.	1	13	0

SLATER AND TILER

SLATER, 1s. 9\(\frac{1}{2}\)d. per hour; TILER, 1s. 9\(\frac{1}{2}\)d. per hour; SCAFFOLDER, 1s. 5\(\frac{1}{2}\)d. per hour; LABOURER, 1s. 4\(\frac{1}{2}\)d. per hour.

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

Slates, 1st quality, per	M:					
Portmadoc Ladies				£14	0	0
Countess				27	0	0
Duchess				32	0	0
Clips, lead. per lb				0	0	4
Clips, copper, per lb.				0	2	0
Nails, compo, per cict,				1	6	0
Nails, copper, per lb.				0	1	10
Cement and sand, see]	EXCA	VATOR.	etc.	aho	ve.	
Hand-made tiles, per M				25	18	0
Machine-made tiles, per				5	8	0
Westmorland slates, lar	ge, pe	er ton		9	0	0
DO. Peggies, per ton				7	5	0
Crammara 2 in manage	amn	o naile	Do	et ma	doe	0*

DO. Peyytes, per ton	•			•	0	U
SLATING, 3 in. gauge, cequal:	ompo	nails,	Por	tma	doc	or
Ladies, per square				24	0	0
Countess, per square				4	5	0
Duchess, per square				4	10	0
WESTMORLAND, in dimi	nishin	g cour	808,			
per square .				6	5	0
CORNISH DO., per squar	e			6	3	0
Add, if vertical, per squ	are ar	prox.		0	13	0
Add, if with copper na	ils, pe	r squa	re			
approx				0	2	6
Double course at eaves,	per ft.	appro	X.	0	1	0
TILING, 4 in. gauge, even nailed, in hand-made						
per square .				5	6	0
Do., machine-made Do.	per s	quare		4	17	0
Vertical Tiling, include per square.	ing po	ointing	g, ad	ld 1	88.	0d.
FIXING lead soakers, pe	r doze	en		£0	0	10
STRIPPING old slates an re-use, and clearing	d stac away	king f				
and rubbish, per squ				0	10	0
LABOUR only in laying	slates,	but i	n-			
cluding nails, per squ				1	0	0
See "Sundries for Asbe	stos T	iling."	,			

CARPENTER AND JOINER

		-			
carpenter, 1s 91d. per he per hour; LABOURER, 1s. 41	our ; J d. per	hou	ER, 1	9. 9	ld.
Timber, average prices at Do	cks. L	onde	m Sta	nda	rd.
Scandinarian, etc. (equal to 2	nds):				
7×3 , per std			£23	0	0
11×4, per std			33	0	0
Memel or Equal. Slightly le		n for		0.	
Flooring, P.E., 1-in., per sq.			21	5	0
DO. T. and G., 1 in., per sq.			1	- 5	0
Planed Boards, 1 in. × 11 in.,		a.	33	0	0
Wainscot oak, per ft. sup. of			0	2	0
Mahogany, per ft. sup. of 1 is			0	223	0
Do. Cuba, per ft. sup. of 1 in.			0	3	0
Teak, per ft. sup. of 1 in Do., ft. cube			0	15	0
				10	0
Fir fixed in wall plates, linte	ela, sle	eper	18,		
etc., per ft. cube .			0	5	9
po. framed in floors, roofs,	etc.,	per			
ft. cube			0	6	3
Do., framed in trusses, etc.,	helnd	ing	-	-	_
	mora	11189	0	7	9
ironwork, per ft. cube			U		9
PITCH PINE, add 331 per cer					
FIXING only boarding in floo	ors, ro	ofs,			
etc., per sq			0	13	6
SARKING FELF laid, 1-ply, p	er vd.		0	1	6
po., 3-ply, per yd			0	1	9
CENTERING for concrete, etc.	· inol	. bee			-
		ud		10	0
ing horsing and striking, I	er sq.		3	10	6
SLATE BATTENING, per sq.					

PRICES CURRENT: continued.

PRICES CURRENT; continued.		
CARPENTER AND JOINER; continued.	Thistle relater, per ton £3 9 0 Figured do., do., per yd. sup. Lath nails per lb 0 0 4 French polishing, per ft. sup.	. £0 5 6
DEAL GUTTER BOARD, 1 in., on firring, per sq	STRIPPING old paper and preparis	
MOULDED CASEMENTS, 1 in., in 4 sqs., glazing beads and hung, per ft. sup. 0 3 0	METAL LATHING, per yd 0 2 3 HANGING PAPER, ordinary, per piece	
Do., Do., 2 in., per ft. sup 0 3 3	FLOATING In Cement and Sand, 1 to 3, Do., fine, per piece, and upwards for tiling or woodblock, ‡ in., VARNISHING PAPER, 1 coat, per piece.	. 4 0 2 ee 0 9 0
Deal cased frames, oak sills, 2 in. d.h. sashes, brass-faced pulleys,	per yd 0 2 4 Canvas, strained and fixed, per y	
etc., per ft. sup 0 4 0 Doors, 4 pan. sq. b.s., 2 in., per ft. sup. 0 3 6	RENDER, on brickwork, 1 to 3, per yd. 0 2 7 VARNISHING, hard oak, 1st coat, 1	1.
DO., DO., DO., 11 in., per ft. sup 0 3 0 DO., DO., moulded b.s., 2 in., per ft.	RENDER in Portland and set in fine sup. sup. stuff, per yd 0 3 3 Do., each subsequent coat, per y	
sup 0 3 9	RENDER, float, and set, trowelled, sup	. 0 0 11
DO., DO., DO., $1\frac{1}{2}$ in., per ft. sup 0 3 3 If in oak multiply 3 times.	RENDER and set in Sirapite, per yd. 0 2 5 DO. in Thistle plaster, per yd. 0 2 5	
If in mahogany multiply 3 times. If in teak multiply 3 times.	EXTRA, if on but not including lath. SMITH	
WOOD BLOCK FLOORING, standard	ing, any of foregoing, per yd 0 0 5 Extra, if on ceilings, per yd 0 0 5 SMITH weekly rate equals 1s. 9	d. per hour ;
blocks, laid in mastic herringbone: Deal, 1 in., per yd. sup., average . 0 10 0	ANGLES, rounded Keene's on Port- land, per ft. lin	r; LABOURER.
DO., 1\(\frac{1}{2}\) in., per yd., sup., average . 0 12 0 DO., DO., 1\(\frac{1}{2}\) in. maple blocks 0 15 0	PLAIN CORNICES, in plaster, per inch	
STAIRCASE WORK, DEAL: 1 in. riser, 11 in. tread, fixed, per ft.	per ft. lin 0 0 5 per fon	. £12 10 0
sup	and jointed in Parian, per vd., Full sheets, black, per ton .	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
2 m. dear strings, fixed, per it. sup. 0 3 5	from	23 0 0 0 0 0 1 10
D. W. W. D. D.	Fibrous Plaster Slabs, per yd 0 1 10 Driving screws, galrd., per grs Washers, galrd., per grs Bolls and nuls, per grs. and up	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
PLUMBER	MILD STEEL in trusses, etc., erecte	
PLUMBER, 1s. 3 d. per hour; MATE OR LABOUREF, 1s. 4 d. per hour.	GLAZIER per ton . Do., in small sections as reinforce	. 25 10 0
Lead, milled sheet, per cwt £2 3 0	GLAZIER, 1s. 81d. per hour. ment, per ton	. 16 10 0
Do. drawn pipes, per cwt 2 4 6 Do. soil pipe, per cwt 2 8 0	Clase . Albe in crates . Do in her or rod reinforcement r	. 17 0 0
	Clear, 21 oz	
Solder, plumber's, per lb 0 1 2 Do. fine, per lb 0 1 5	Polished plate British 1 in un to including building in, per cwt.	. 2 0 0
Copper, sacet, per lo	no 941	. 2 5 0
R.W.P., 2\frac{1}{2} in., per yd 0 2 0 DO. 3 in., per yd 0 2 5	Do. 5ft. sup.	
Gutter, 4 in. H.R., per yd 0 1 5	Rough plate, $\frac{1}{16}$ in 0 0 54 per yd	. 0 2 0
Do. 4 in. O.G., per yd 0 1 9	Linseed oil putty, per cwt 0 16 0	
MILLED LEAD and labour in gutters, flashings, etc 3 10 6	GLAZING in putty, clear sheet, 21 oz. 0 0 10 SUNDRIES	
flashings, etc 3 10 6 LEAD PIPE, fixed, including running	Do. 26 oz 0 0 11	
flashings, etc. 3 10 6 Lead Fife, fixed, including running joints, bends, and tacks, \(\frac{1}{2} \) in., per ft. 0 2 1 DO, \(\frac{1}{2} \) in., per ft. 0 2 5	DO. 26 oz	e
flashings, etc	DO. 26 oz	e
flashings, etc. 3 10 6 Lead Fife, fixed, including running joints, bends, and tacks, \(\frac{1}{2} \) in., per ft. 0 2 1 DO, \(\frac{1}{2} \) in., per ft. 0 2 5	DO. 26 oz	£0 0 21
flashings, etc	DO. 26 oz	£0 0 2½ t. 0 0 6
flashings, etc	DO. 26 oz	£ £0 0 2}
flashings, etc	DO. 26 oz	£0 0 2½ £0 0 0 6 0 0 1 7 0 2 8
flashings, etc	DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 3 Small sizes slightly less (under 3 ft. sup.). Patent glazing in rough plate, normal span. 1s. 5d. to 2s. per ft. LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, and up, per ft. sup. 20 3 6 Glazing only, polished plate, 6 id. to 8d. per ft., according to size. Fibre or wood pull boardings, according to quality and quantity. The measured work price is on the same boats per ft. su same boats per ft. su Ftere boardings, according to quality and quantity. The measured work price is on the same boats per ft. su same boats per ft. su Ptaster board, per yd. sup. fro PLASTER BOARD, fixed as last, per y sup. fro Sup. defended for the same boats per ft. sup. fro PLASTER BOARD, fixed as last, per y sup. fro Sup. defended for the same boats per ft. sup. fro PLASTER BOARD, fixed as last, per y sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft. sup. fro Sup. defended for the same boats per ft.	e £0 0 2½ . 0 0 6 0 0 1 7 1 0 2 8 . 0 2 3 . 0 3 3
flashings, etc	Do. 26 oz	e £0 0 2½ . 0 0 6 0 0 1 7 1 0 2 8 . 0 2 3 . 0 3 3
flashings, etc	DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 3 Small sizes slightly less (under 3 ft. sup.). Patent glazing in rough plate, normal span. 1s. 5d. to 2s. per ft. LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, and up, per ft. sup. 20 3 6 Glazing only, polished plate, 6 ½d. to 8d. per ft., according to size. DECORATOR PAINTER, 1s. 8 ½d. per hour; LABOURER, 1s. 4 ½d. DO. corrugated, per yd. sup. ASBESTOS SHEETING, fixed as last flat, per yd. sup. DO. corrugated, per yd. sup.	e £0 0 2½ c 0 0 6 n 0 1 7 n 0 2 8 r 0 2 3 0 3 3
flashings, etc	DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 3 Small sizes slightly less (under 3 ft. sup.). Patent glazing in rough plate, normal span. 1s. 5d. to 2s. per ft. LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, and up, per ft. sup. 20 3 6 Glazing only, polished plate, 6 d. to 8d. per ft., according to size. DECORATOR PAINTER, 1s. 8 d. per hour; LABOURER, 1s. 4 d., per hour; FRENCH POLISHER, 1s. 9d. per hour; PAEPERHANGER, 1s. 8 d. per hour; PAEPERHANGER, 1s. 9 d. per hour;	e £0 0 2½ 0 0 6 0 0 1 7 0 0 2 8 0 0 2 3 0 0 3 3
flashings, etc	DO. 26 oz., per ft. 0 1 0 DECORATOR PAINTER, 1s. 8½d. per hour; LABOURER, 1s. 4½d. per hour; FERNCH FOLISHER, 1s. 9d. per hour; PAPERHANGER, 1s. 8½d. per hour. Genuine white lead, per cut, 23 5 0 Fibre or wood pulp boardings, according to quality and quantity. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on to same boats . per ft. sup. The measured work price is on the same boats . per ft. sup. The measured work p	6. £0 0 2½ 6. 0 0 6 6. 0 1 7 6. 0 2 8 7 0 2 3 7 0 2 3 7 0 4 0 7 0 5 0 6 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 3 3 7 0 4 0 7 0 5 0
flashings, etc	DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 3 Small sizes slightly less (under 3 ft. sup.). Patent glazing in rough plate, normal span. 1s. 5d. to 2s. per ft. LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, and up, per ft. sup. 20 3 6 Glazing only, polished plate, 6 ½d. to 8d. per ft., according to size. DECORATOR PAINTER, 1s. 8 ½d. per hour; LABOURER, 1s. 4 ½d. per hour; FRENCH POLISHER, 1s. 9d. per hour; PAFERHANGER, 1s. 8 ½d. per hour. Genuine white lead, per cut. 23 5 0 D., boiled, per gall. 0 4 0 D., boiled, per gall. 0 4 3 Turpentine, per gall. 0 6 6	6. £0 0 2½ 6. 0 0 6 7. 0 2 8 7. 0 2 3 8. 0 3 3 9. 0 4 0 9. 0 5 0 10 2 15 0 10 3 0 0
flashings, etc	GLAZING In beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 2 DO. 25	6. £0 0 2½ 6. 0 0 6 6. 0 1 7 6. 0 2 8 7 0 2 3 7 0 2 3 7 0 4 0 7 0 5 0 6 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 2 3 7 0 3 3 7 0 4 0 7 0 5 0
flashings, etc	DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 3 Small sizes slightly less (under 3 ft. sup.). Patent glazing in rough plate, normal span. 1s. 5d. to 2s. per ft. LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, and up, per ft. sup. 20 3 6 Glazing only, polished plate, 6 ½d. to 8d. per ft., according to size. DECORATOR PAINTER, 1s. 8 ½d. per hour; LABOURER, 1s. 4½d, per hour; FRENCH POLISHER, 1s. 9d. per hour; PAPERHANGER, 1s. 8½d. per hour. Genuine white lead, per cucl. 23 5 0 Linseed oil, raw, per gall. 0 4 0 Do., boiled, per gall. 0 4 0 Do., boiled, per gall. 0 6 6 Liquid driers, per gall. 0 6 6 Liquid driers, per gall. 0 6 6 Liquid driers, per gall. 0 9 6 Liquid driers, per gall. 0 6 6 Liquid driers, per gall. 1 5 0 Distemper, washable, in ordinary colours, per cuct, and up. 2 0 In the measured work price is on the same basis . per fl. sum finely for gallity and quantity. The measured work price is on the same basis . per fl. same basis . per fl. sum finely flow of grounds, per sup. from the per yd. sup. from the per yd. sup. (as yellow) and the per yd. sup. (bo., corrugated, per	e £0 0 2½ c 0 0 6 n 0 1 7 n 0 2 8 r 0 2 3 0 3 3 0 4 0 0 5 0 t 17 0 0 19 0 0
flashings, etc	GLAZING In beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 28 oz., per ft. 0 1 0 DO.	e £0 0 2½ c 0 0 6 n 0 1 7 n 0 2 8 r 0 2 3 0 3 3 0 4 0 0 5 0 t 17 0 0 19 0 0
flashings, etc	GLAZING In beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 28 oz., per ft. 0 2 0 DO. 28 oz., per cz., per ft. 0 2 0 DO. 28 oz., per cz., per cz	2 15 0 0 19 0 0 1 17 0 0 0 19 0 0 6 6
flashings, etc	GLAZING in beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 28 oz., per ft. 0 2 0 DO. 28 oz., per cz., per cz	2 15 0 0 19 0 0 1 17 0 0 0 19 0 0 6 6
flashings, etc	GLAZING In beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 1 0 DO. 26 oz., per ct. 0 1 0 DO. 26 oz., per cz., and up. 0 1 10 DO. 26 oz., per per gall. 0 0 4 0 DO. 26 oz., per cz., and up. 0 1 10 DO. 26 oz., per per gall. 0 0 1 10 DO. 26 oz., per per gall. 0 0 1 10 DO. 26 oz., per per gall. 0 0 1 10 DO. 26 oz., per per gall. 0 0 1 10 DO. 26 oz., per per gall. 0 0 1 10 DO. 26 oz., per per gall. 0 0 1 10 DO. 26 oz., per per gall. 0 0 1 10 DO. 26 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 27 oz., per per gall. 0 0 1 10 DO. 28 oz., per per gall. 0 0 1 10 DO. 28 oz., per per gall. 0 0 1 10 DO. 28 oz., per per gall. 0 0 1 10 DO. 28 oz., per per gall. 0 0 1 10 DO. 28 oz.,	2 15 0 0 1 17 0 0 19 0 0 6 6 0 1 9
flashings, etc	GLAZING in beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO.	2 15 0 0 1 6 0 1 7 0 0 1 9 0 0 1 9 t 0 2 10
flashings, etc	GLAZING in beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 1 0 DO.	2 15 0 0 19 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0
flashings, etc	GLAZING in beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 1 0 DO.	2 15 0 0 1 6 0 1 7 0 0 19 0 0 1 9 0 0 1 9 1 0 0 1 9 1 0 0 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 1 1
flashings, etc	GLAZING in beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 27 oz., per cot. 0 20 DO. 28 oz., per ft. 0 1 0 DO. 28 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 27 oz., per cot. 0 10 DO. 28 oz., per cot. 0 10 DO.	2 15 0 0 1 6 0 1 7 0 0 19 0 0 1 9 0 0 1 9 1 0 0 1 9 1 0 0 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 9 1 0 0 1 1 1 1
flashings, etc	GLAZING in beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 1 0 DO.	20 0 2½ 0 0 6 0 1 7 1 0 2 8 7 0 2 3 0 3 3 0 4 0 0 5 0 17 0 0 19 0 0 10 0 6 6 0 1 6 0 1 9 1 0 2 10 1 0 7
flashings, etc	GLAZING in beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 10 DO. 25 oz., per ft.	2 15 0 0 19 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
flashings, etc	GLAZING In beads, 21 oz., per ft. 0 1 0 DO. 26 oz., per ft. 0 1 0 DO. 25 oz., per ft. 0 10 DO. 25 oz., per ft. 0 1	2 15 0 0 19 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0

