THE ARCHITECTS' JOURNAL

Wednesday, August 22, 1928

THE TROUBLES OF A PROFESSION

The fact that during the last hundred years architects have banded themselves together in institutions and societies shows the demand for corporate action, not only in advancing the interests of architecture, but also as a means of securing for themselves guidance, assistance, and protection in the discharge of their professional duties.

The first architectural body to provide this protection for its members was the Society of Architects, which, in 1912, formed a Board of Professional Defence, allocated a portion of its members' subscriptions to a Defence Fund, and constituted an organization to support and protect the professional character, status, and interests of its members, and to assist in defending them in cases where questions of general professional principle were involved.

About the same period a similar proposition was made to the R.I.B.A. by a member of that body, but at the time it was not found practicable to carry it into effect. The idea remained, however; and shortly after the amalgamation of the R.I.B.A. and the Society, though not as a result of it, a scheme for an Architects' Defence Union as a separate organization was approved by the R.I.B.A. Council, and culminated in the launching, on July 1, 1927, of the Architects', Engineers', and Surveyors' Defence Union, Ltd., the objects of which were similar to those of the Society of Architects' Defence organization. It is in the means of defence that the schemes differ, because, while the Society had its own defence fund, the Architects' Defence Union contracts with an insurance company to give its members the benefit of an indemnity policy in return for a guaranteed minimum number of premiums per annum.

This arrangement was made by the Union on the strength of sufficient provisional promises of support previously received from architects, which, unfortunately, have not materialized to the extent and within the time required. As we understand the position, it is not that the insurance company is unable or unwilling to issue policies, as heretofore, conditionally on the contract with them being completed by the Union; it is the latter which is unable at present to comply with this stipulation, owing to sufficient support not being forthcoming within a given time.

It is to be hoped, of course, that the existing difficulties may presently be overcome and the Union be placed in a position to resume its full activities. In the meantime it cannot be too widely known and understood that the Union is still in being and carrying on its advisory work in connection with cases brought to its notice by existing members. The value of the Union's work is admitted by those members who have already benefited by its advice and guidance, as well as by others who have had their claims dealt with under their insurance policies.

The first year's work must necessarily be in the nature of an experiment, but enough has been accomplished to show that given sufficient time and support the Union will develop into one of the most useful and practical institutions of its kind. There is scope for its activities extending, for instance, in the direction of forming panels of legal and other experts well acquainted with the many liabilities to which the architect is exposed in the course of his practice, and able to deal effectively and promptly with all requests for advice and guidance received from members, apart altogether from or in addition to the questions of protection by insurance.

The Union cannot protect the architect against himself, as it were; but cases frequently arise where architects are in difficulties, notwithstanding their having exercised reasonable care in the execution of their professional duties. A couple of years ago we suggested on this page that the number of actions brought against architects, particularly in connection with alleged negligence, was on the increase; and the view was expressed that if this were so it was not because architects were becoming more neglectful of their clients' interests, but that they were somewhat neglectful of their own. Architects do not appear as a body to have grasped the necessity for insuring against the constantly increasing professional liabilities to which they are daily exposed.

The membership of the Union at present is nearly 400, including about one-tenth of the eligible members of the R.I.B.A. What of the remaining nine-tenths? Are all of them otherwise protected, or are they superior beings so absorbed in their art as to be oblivious to the dangers they incur in practising it without the safeguard offered by membership of the Union? It would seem clear that the Union is so constituted as to admit of its accepting members apart from any question of insurance (and possibly *vice versa* apart from any question of professional advice), and we, for our part, would like to see the subscription so arranged that a member could either have the full privileges on payment of the full subscription, or, alternatively, of one of the other advantages on payment of a lesser sum, with the opportunity of transferring to full membership and privileges at any time by paying the difference. By this means the Union should appeal to all concerned, including those already protected by other means and those who have no personal desire to be insured, as all of them probably require professional guidance and advice from time to time.

NEWS AND TOPICS

THE untimely death of Henry Poole deprives us of one of our most distinguished sculptors, whose work possessed marked individuality, while at the same time it was typical of the general aspirations of his art during the period immediately preceding the war. The grace and suavity of that time has since given place to a certain stark vigour almost approaching brutality; but such men as Derwent Wood and Henry Poole never allowed the harsh influences of the war to affect their conception of the aims of sculpture, and maintained a technique based on the supple modelling of the human figure and the harmony of line resulting from the judicious employment of drapery and other aids to composition. By this it is not to be inferred that his work lacked vigour; had this been the case it would not have contributed so effectively as it did to the architecture of the buildings with which he was associated; in fact, from the point of view of the general public, it is probably by this architectural sculpture that his genius will be most recognized in the future, and it was in large measure due to the sympathetic comprehension of his powers by the late E. A. Rickards, that opportunities in this branch of the sculptor's art came his way. Shortly after his successful career in the R.A. schools, he won, in a limited competition, the commission for the fine group symbolizing Patriotism on the south-east pavilion of the Cardiff City Hall, and he subsequently executed the reliefs of the four admirals and other decorative sculpture on the façade of the Town Hall at Deptford. A few years later the whole of the decorative carving and leadwork to the Central Hall, Westminster, came from his hand, and he was also about this time engaged on several ideal compositions and portrait busts. His next important public work was also in conjunction with E. A. Rickards, the Edward VII memorial in front of the Victoria Rooms at Bristol. There followed a period of less activity in this direction, but the sculpture room at the R.A. was rarely without some interesting work by Henry Poole.

* * *

Then came the war and the consequent cessation of artistic activities. When it was realized that the experience of artists could be turned to military uses in the design of modes of camouflage, Poole joined this group of workers, and rendered good service in devising appropriate schemes for fulfilling various requirements. Henry Poole and E. A. Rickards won the first prize in the national competition for a war memorial, and this design formed the basis of the monument to Captain Ball, V.C., at Nottingham. Among his other memorials are those to Lord Cowper, Lord de Vesci, and Sir Daniel Cooper, while his latest work is to be seen in the throne for the chapel of St. Michael and St. George in St. Paul's Cathedral. One of his most strongly characterized single figures was that of Giraldus Cambrensis in Cardiff City Hall; but his reputation will always rest more on his keen sense of decorative quality and composition than on characterization, possibly by reason of the fact that most of his earlier work made strong demands on the development of these faculties. Personally, Henry Poole was of a somewhat retiring disposition, rarely emphasizing his views or taking a prominent part in the vigorous arguments that so frequently marked the circle to which he belonged. To those who remember the warmth with which Alfred Gilbert, George Frampton, and Derwent Wood used in their younger days to support their views on various branches of art, Poole's silence was almost uncanny, and earned him the somewhat obvious nickname taken from a secluded pond near Guildford. At the same time his friends knew well enough that his silence was by no means that of the empty mind, but rather of one which preferred to absorb and review ideas than to expound them.

* * *

The surveys of Oxfordshire and of the Thames Valley that are being carried out under the auspices of the Council for the Preservation of Rural England, are making good headway. It is proposed, I understand, to endeavour to start before long a branch in Devon and Cornwall with a view to preventing any more of that desecration of the Devon and Cornish coast such as has already taken place at Duporth. The view taken by Lord Crawford and the officials of C.P.R.E. is that there are certain landscapes where buildings ought not to be erected. There is no objection, of course, to the presence of well-designed houses, whether large or small, which often add interest to a landscape. But unreasonable, disorderly, and incongruous buildings may ruin a district. In such cases, if buildings have to be erected, states C.P.R.E., they should be so placed, and be constructed of such materials, as to become gently incorporated in the landscape. If the proposed Branch Committee is formed, special attention will be given to Dartmoor and the coast.

* * *

I am glad to see that the Bradford City Council and the members of the West Riding Regional Smoke Abatement Committee, representing 101 local authorities in Yorkshire, are taking a strong line with regard to industrial smoke. The Ministry of Health are asked to sanction a by-law to regulate the pollution of the atmosphere by the black smoke that so often issues from factory chimneys. The Bradford City Council, an industrial body, wish to prescribe that the emission of black smoke for a period of two minutes in the aggregate within any continuous period of thirty minutes from any building other than a private dwelling-house, shall, until the contrary is proved, be presumed to be a nuisance. Industrialists object to this, on the grounds that at the present time there is a point beyond which improvement of plant cannot proceed without imposing an intolerable burden upon industry. Evidence was given at the recent inquiry held at Bradford that the time had not yet arrived when the avoidance of smoke would be commercially practicable.

* * *

All those who are studying the problem of the possible application in the future of town planning to the built-up areas of our towns, know that far and away the greatest difficulty lies in the number of individual owners of town property. This has greatly increased since the war. A large property owner, provided he is reasonably approached, is usually a reasonable being with whom it is possible to come to some agreement without recourse to litigation, which means much delay and expense. But landowners have been steadily selling out for the last twenty years, partly owing to the heavy taxation that has been imposed, and consequently the number of small owners has increased to an extent that is not generally realized. For

example, in one area that is included in a scheme now under the consideration of the City of Bradford, there are over 8,000 different owners of property to be conciliated. A compensation fund, if it is in any way to be just, has to be ample to meet the claims of so many owners. In order to overcome these difficulties, a scheme is being devised for the creation of a pool. Those owners who suffer from the redevelopment of property will draw from the pool, and those who benefit from "betterment" will contribute. The working of such a scheme will entail much patience on the part of officials.

* * *

Some years ago I collected old maps; not that I was particularly interested in geography, but that they were such delicious decorative objects in colour and line and, indeed, in design. The splendid fellows who made them—their mere names are a sweet symphony, as Dante Gabriel Rossetti said—Ortelius, Blaen, Jansson, Zürneri, de Vaugondy, Lotter, Vindel, Ogle, Luny Jukes, Peltro, Pouncey Huggins, were artists as well as cartographers. Since I bought my first county map thousands of old map-books and atlases must have been gutted, and their single members thrown ruthlessly into the hands of the booksellers. Now they are eagerly sought for, and there is no doubt that a room decorated with framed maps with all their heraldic embellishments looks like no other room; there is a distinction about it impossible in any other direction. Acute decorative artists in America have not been slow to realize this, and the map-motive is now greatly in vogue there. After the splendid show of maps and naval prints at the Beaux Arts Gallery in Bruton Place, there will be a similar vogue in London. There is much scope. Take the Spain of 1626, with its border of little panels, each with a picture of the costume of a province or a view of one of the chief cities; or the Kingdom of Naples, 1660, with its lovely set of coats of arms and its enchanting lettering: Golfo di Venetia, Mare Tirreno, Mare Ionie! They are wonderful. The English county maps are hardly less. The decadence sets in with the American maps of the later eighteenth century.

* * *

Turner's *Liber Studiorum* is an immortal work, and it was so intended by its author. It is a monument of observation and imagination, invention and reality; of topographical suggestion raised to the region of fine art; of the craft of mezzotint engraving. Of its landscapes there is nothing but praise; unfortunately there are too few architectural subjects, and the scraps of architectural detail he gave to the landscapes are all the more welcome. Take Norham Castle, Holy Island, the so-called Berry Pomeroy Castle—how delicious they are! The crypt of Kirkstall Abbey is the most purely architectural print, and what good architecture it is! Rivaulx and Dunblane Abbeys are others. At the Cotswold Gallery in Soho there is a fine collection of *Liber* prints, and the catalogue is a valuable document, for it is prepared by Mr. and Mrs. A. J. Finberg, and all there is in it therefore is authentic. No one has worked more assiduously for any artist than these two faithful historians and annotators of the greatest landscape painter of the world. Turner was a young man when the ambitious idea of making himself immortal occurred to him. He carried it out with a

The crypt of Kirkstall Abbey. Etched and engraved by J. M. W. Turner. [*From* "Liber Studiorum."]

thoroughness only possible in a genius. Nearly all the plates of the *Liber* were engraved by himself in etching and mezzotint, and what he did not engrave himself were entrusted only to the ablest craftsmen—Charles Turner, Clint, Lupton, and the rest.

* * *

If I were to tell you a story about a big lion that jumped on to the bonnet of a motor-car driven by James Montague Pabslip, F.R.I.B.A., F.S.A., you'd swear that the silly season was here, and that I was simply trying to fill the page. But I will tell the story even so. Mr. Pabslip, of course, had to be very careful what he did, because he knew that if he were not careful the lion would eat him up, so he made the car go very fast so that the lion was frightened and had to hang on tight. And he went on and on, and the people on the road stared, and after he had gone by said to one another: "Great Scott! did you see that fellow with a lion on his bonnet?" But no one could do anything, and poor Mr. Pabslip knew he could not go on and on for ever and ever without stopping, and then at last he had a splendid idea. He turned quickly into the grounds of a big house where the carriage drive went round and round, and he thought: "If some one comes, he can stand in the middle and I can tell him to get a gun and shoot the lion."

* * *

But if I were to go on and tell of the bathing-machine horse that was ridden in pursuit of a little boy who was trying to avoid paying for the bathing-machine, but could not go very fast because his legs were all covered with wet seaweed which had grown on them because he stood nearly all day in the sea, and made his legs heavy, you would say: "Why, the thing must be true. The fellow couldn't have thought of that by himself!" But as to whether these things *are* true, or not, reader, I know no better than yourself. For I found them in a book for children, called *Marytary*,[1] written by an architect, Mr. H. B. Creswell (with pictures by George Morrow). They *must* be true, but then—perhaps—after all, one *needs* imagination to be an architect.

ASTRAGAL

[1] *Marytary*. By H. B. Creswell. Illustrated by George Morrow. Oxford University Press. 5s.

WOODS AND BEAUTY SPOTS

[BY C. E. M. JOAD]

[It is our conviction that people do not know how to use their leisure, which, in consequence, is a nuisance and an embarrassment to them. In a book entitled Diogenes, or the Future of Leisure, *to be published early next month in the "Today and Tomorrow Series," Mr. Joad has tried to demonstrate that this is a fact, and to assign reasons for it. Part of his case consists merely of pointing to what is happening to the country. With what is happening to the country readers of* THE ARCHITECTS' JOURNAL *(although perhaps not the public) are already familiar, and we propose to spare our readers, therefore, any generalizations about the villa-motor phase of the industrial revolution, and the depredations of the men of tin and brass. We think, however, that the following extract from* Diogenes, *dealing with two special aspects of the ruin of the country, may be found to cover ground less known, and we print it accordingly.*—Ed. A.J.]

CONSIDER our forests. Everywhere we plant firs, and regiment the sweet irregularity of our woodlands with serried lines of conifers. A hundred and fifty years ago the trees of southern England were the oak, the ash, the beech, and the elm; to them we looked for our wooden walls, while pines were the ornamental luxury of the eighteenth-century gentleman's garden. In the nineteenth century came a use for pines as pit-props, and after the great war that ended in Waterloo the inevitable crowds of unemployed soldiers were set to work to plant them. Meanwhile wooden ships were superseded, and the commercial value of the oak and the ash declined. With what result? In 1927, in England south of the Thames, the firs outnumbered all the other trees put together, while the oak and the ash bid fair within the next fifty years to subside into the rôle of the occasional ornament of gardens and parks. Nowhere are these changes to be seen more clearly than in the New Forest. Under the influence of that efficient and, from the pit-prop point of view, expert body, the Forestry Commission, vast areas of once enchanted woodland are surrendered to the commercial utility of the alien self-seeding conifers. The pines blight everything that comes within their malign influence. Flowers wither away, cattle pastures dry up, the birds take flight. Those who have known the forest woodlands either in the leafage of early spring, in their autumn gold, or glittering in their winter constellations of coral-red holly berries, will admit that the loss of their beauty would be a national calamity. Yet within a hundred years, if the present policy continues, destroyed it will assuredly be, and the old greenland enchantment, wiped nearly off the map, will yield to garden suburbs in the woods, nurseries for fir-tree pit-props, or poultry farms managed by maiden ladies.

Meanwhile our woodlands are preserved. Stockbrokers like to shoot pheasants; the birds are at all times an easy mark, and can be bred in sufficient numbers to make failure to hit them difficult. As a matter of fact, drives occur in which prodigious numbers are killed, and fat sportsmen distribute the trophies of their skill among their admiring friends. To facilitate this slaughter the little animals who live in woods are ruthlessly exterminated. Hedgehogs, it seems, eat pheasants' eggs, and the stoat must not be permitted to rob the "sportsman" of his prey. Who does not know those melancholy rows of little dead creatures, stoats, weasels, moles, and hedgehogs, strung up on some prominent tree or bush, presumably to discourage the others. The pheasant, though decorative, is a dull bird, and it is a shame that the woods should be denuded of life that it alone may live. But we cannot escape progress. In a hundred years, I have said, there will be only pines; but the remark must now be qualified. There will be pines only where there are not pheasants.

Again, we create beauty spots, and pride ourselves on saving what we have created. Beauty spots, as everyone knows, are places saved from the speculative builder by the munificence of rich men, and handed over to the National Trust for the benefit of the nation. And yet, paradoxically enough, what is saved is often the thing least worth saving. For consider what happens. Every year some half-dozen famous places are threatened: Birling Gap, or Savernake Forest are in danger of the builder, the War Office want the Surrey Commons or the cliffs round Lulworth; a lake in the Welsh hills is to be appropriated to supply water to a big industrial town, or a road is to be driven over the Stye Head Pass. People begin to write letters to the Press; there is a growing volume of protest, and in due course one of the big dailies takes the matter up and begins to rumble with indignation, as if it were the national bowels. A fund is formed to buy for the nation. It is, of course, lamentably inadequate, but the public-spirited owner holds to the last possible moment in the hope of being able to sell for the benefit of the nation at a reasonable price. Not to be outdone in public spirit, a private individual, who usually prefers to remain anonymous, intervenes in the nick of time, contributes the requisite amount and presents the threatened area to the nation. Everybody heaves a sigh of relief: another beauty spot has been saved. And what precisely does that mean?

There are still in England hundreds of square miles of lovely country, of downs, or woodland, or moorland, or mountain. Somewhere in the middle of one of these tracts there is a small area which has come to be known as a beauty spot. Sometimes there is reason for the choice; two rivers meet, there is an especially big tree, or a celebrity has been born, has written a book, has married or died there; or there are hot springs, or devils' steps or a punch bowl or a cave. Often it is quite arbitrary. The "beauty" spot is rarely, if ever, more lovely than the surrounding country; often, as in the case of the Valley of the Rocks at Lynton, it is less so. But because it is a "beauty spot" it is mentioned in the guide books, it attracts tourists, it becomes a rendezvous for charabancs and motor-cars, it gives birth to tea shanties and is immortalized in picture postcards. Round it and upon it there

accretes a scurf of bags and orange peel, and newspapers and empty tins and cigarette packets. For when civilized man comes into the country he leaves the litter of civilization behind him.

Newlands Corner on a Sunday evening exemplifies the fate of the beauty spot; cars are packed ten deep, picnic parties are scattered over the turf, the smell of petrol assaults the nose, and the honks of motor-horns the ears. The men of tin and brass are everywhere rejoicing in the dustbin they have made. Now this is the sort of place which, as the result of one of our great public efforts, is " saved "; but the surrounding country, the miles of downland or woodland of which it is the little vulgarized core, is not. And because nobody knows about this, and because only a few cranks would care, even if they knew, more of England's country is year by year desecrated and submerged. It may be justly said of our generation that it found England a land of beauty and left it a land of beauty spots.

In a part of Surrey famous for its beauty there was recently held a motor-cycle paper chase. The " hares " carried long paper streamers which they trailed continuously over the countryside for miles. Remains of the streamers lay about a good six months after the event.

REINFORCED CONCRETE ARCHITECTURE AND A. G. PERRET

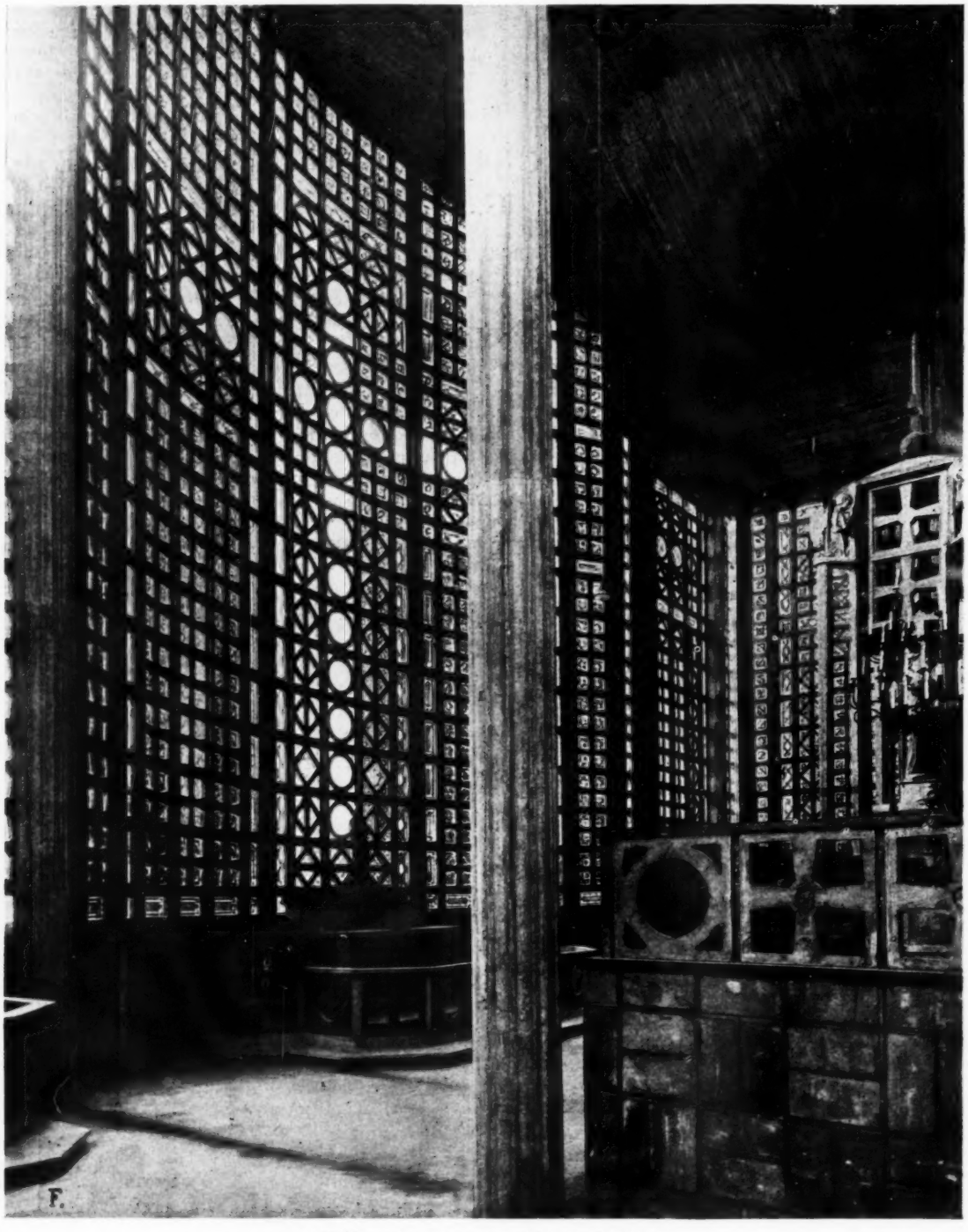
[BY H. BARTLE COX]

THE author of *A. G. Perret et l'Architecture du Béton Armé*, Monsieur Paul Jamot, " conservateur adjoint du Musée du Louvre," is a well-known writer, and an advocate of modern architecture as exemplified by the works of Monsieur Auguste Perret. Monsieur Jamot has contributed many articles on the same subject in the *Gazette des Beaux-Arts*. The influence of the Perret frères is becoming more and more felt not only in England but in all parts of Europe. America, however, whose conception of architecture is primarily based upon pre-war Ecole des Beaux-Arts notions, has, so far, remained but little touched by the evolutionary note emphasized in such buildings as the theatre of the Champs-Elysées, the church of Notre-Dame at Le Raincy, and the tourists' tower at Grenoble. All these and the many other important buildings by Perret frères are the outcome of economic circumstances, and their fame is due to their common-sense constructional methods. In Germany and other north-eastern countries which have never completely thrown off the influence of medieval culture, Monsieur Perret is regarded in certain quarters

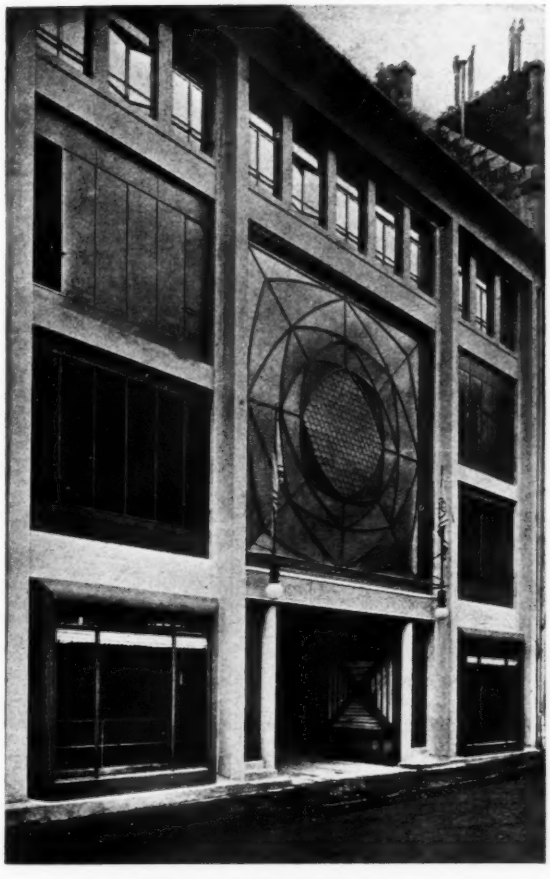
Le Palais de Bois, Paris (temporary exhibition building). By Auguste Perret and Brothers.

as representative of a new school of architecture contributing largely to the formation of what might be termed a universally new "style." In France, a country both conservative and ultra modern, possessing the most highly developed school for the training of an architect on classic lines to be found anywhere in the world, these pioneers formerly met with a great deal of bitter opposition, but now, practically all the leading members of the modern movement proclaim Auguste Perret as among the most important of living architects; and many well-known figures of the *ancien régime* not only enthusiastically acknowledge but even strenuously fight for the defence of Perret Frères.

One may like or dislike Perret's designs, but it is futile to deny that his "building" is "architecture." Perret Frères are builders, and are, in consequence of the "Code Guadet," debarred from membership of all the well-known



Notre-Dame du Raincy. The Lady Chapel behind the altar. By Auguste Perret and Brothers.



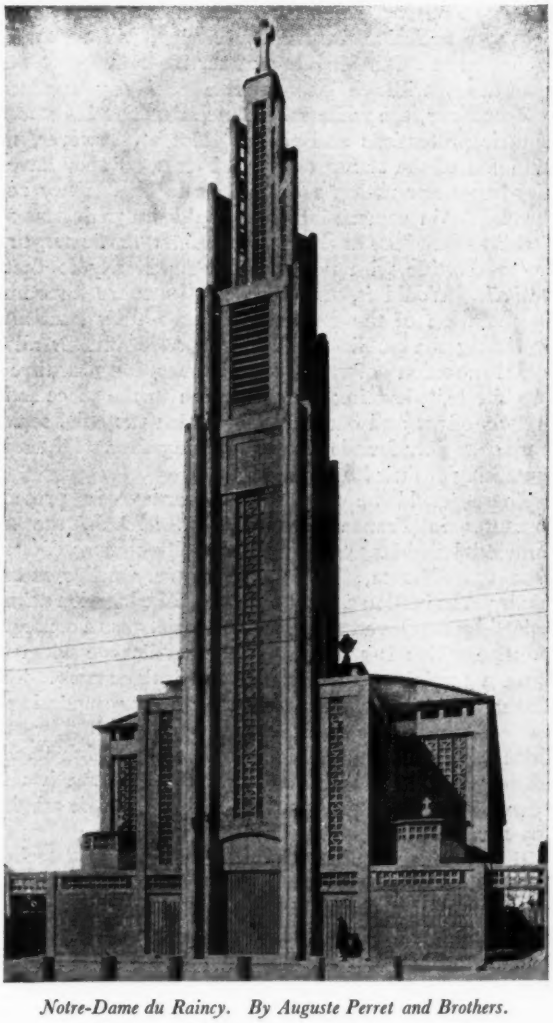
A garage in the Rue Ponthieu, Paris.
By Auguste Perret and Brothers.

French architectural societies. These societies years ago adopted the "Code Guadet" as a standard of professional etiquette which forbids an architect, as such, to have any moneyed interest in any form of commercial enterprise. The "Code" was formed with the idea of closing the profession, but this for obvious reasons has never been attained. Perret Frères are in France today definitely and firmly established as architects both in public as well as in professional circles. This latter point is of importance to the societies that hesitate to readjust the "Code Guadet" to present-day exigencies.

Not only are Monsieur Auguste Perret and brothers builders and architects (the two senior partners were both brilliant students at the Ecole des Beaux-Arts) but they are engineers as well. Their work is stamped with the sincerity of "architectural engineering," which term might conveniently be used to characterize their conception of the word "style." Style is ever evolving, which the advocates of the styles seem to deny. In reality it is a term that might well be dispensed with for it is but another word for "character" or "manner," and being based upon old principles adapted to new requirements it is always changing in outward expression. Much confusion has been wrought in the public and in the professional mind by an inadequate use of the word "style." The increase of education and especially the economic situation of modern conditions are dictating the necessity for more simple, refined, well constructed, and inexpensive buildings whether designed by architects, builders, or engineers. In the history of construction the word "engineer" is of comparative modern usage and is perhaps on firmer ground than that of "architect."

A law regulating, and necessarily restricting, the use of the word *architecte* would in the long run have the effect of belittling the profession because architecture cannot now afford to ignore engineering. The day will come perhaps when engineers, builders, decorators, and other bodies with proof of professional education will be admitted into the fold. Then there would be some justifiable cause for a law to keep out uneducated pretenders, but in that case, of course, it would be of little avail as a protective measure for a self-styled class. Were it possible to foist a law upon the nation to protect the title *architecte* it would not prevent builders from building, nor engineers from engineering; it would merely tend to reduce the architect to a supervisor, a kind of glorified and obnoxious official. Even the word *décorateur* (he has often a good architectural training, despite his commercial interests) would begin to assume a more dignified and independent standing; the client could dispense with the official's fee!

It seems to the writer of these few words on the book in question which brings this burning question so strikingly to the fore, and he knows it to be the opinion of Monsieur



Notre-Dame du Raincy. By Auguste Perret and Brothers.

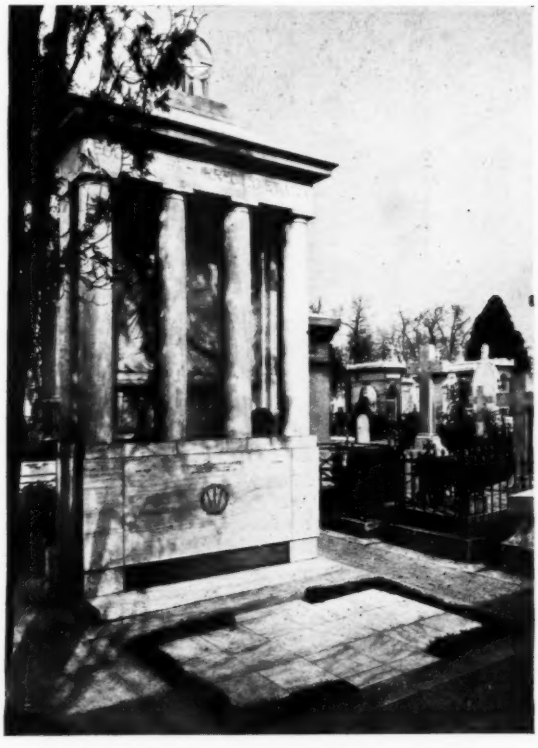
Auguste Perret as well, that such a law as proposed in France by certain pledged members of the profession would be the most suicidal move that could possibly be imagined. This is also such a confirmed conviction of many well-informed enemies of the profession, whose number is increasing in proportion to the propaganda, that they sincerely hope *theoretically* that the *projet de loi* will become law, though *practically* they are determined to oppose it with all their force, considering the move as an attempt at usurpation of function likely to be retrogressive in the interests of the art for several years.

The question, a most anxious one, naturally arises: What would be the officially recognized professional standing or epithet attached to such active and irrepressible practitioners as the Perret frères who are morally and materially unable to sign a time-worn "Code" drawn up by a clique of dilettanti?

There is not much danger of such a proposition becoming law, but so long as this yet undefined *projet de loi* is to the fore in France and they are periodically harping on this string, architecture is in a perilous position, and its pretended exponents are open to the indictment of aiming at domination instead of harmonious collaboration, the essential factor of modern building. Until this matter dies, or is thrashed out openly instead of discussed clandestinely, architects in France, some of whom would probably find that their subscriptions had been used for their own exclusion from the profession, will continue to be viewed in an unfriendly manner by builders, to be at loggerheads with engineers and suspiciously considered by decorators, the while the public are being informed as to their pretentions and tactics. Not so, however, with architects of the stamp of Perret Frères, for they have no false hopes nor useless subscriptions to lose. They could always obtain commissions and could design just as well if called builders, engineers, or *maîtres de l'œuvre*, or by any other title with the acquired superiority to that of *architecte*. Would it, therefore, not be more honourable for members of the profession to stop their cant about protecting the public and let drop once and for all the sordid question of the "Réglementation du titre de l'architecte," devoting their attention to the more serious matters of art and education for which the chief societies were ostensibly founded? By so doing they might regain something of their lost prestige.

There would be very little advantage in protective measures in France because the S.A.D.G., the most influential and largest society, is wholly composed of men with the diploma, that is to say, every active member has by examination a real proof of a real education acknowledged by the Government, and the society has a consequent prestige which is sufficient in the public eye when they want a special architect of that particular stamp. There might be some plausible reason for a law regulating the use of the title *architecte* if they could adequately define this elusive word and base it upon a high standard of examination, but the Government diploma has long been discarded as too exacting and, it must be admitted, too *special*.

If an ordinary architect, one not possessing the technical knowledge of a practising engineer, nor the business opportunities of a builder, nor the artistic temperament of a commercial *décorateur*, such a man as has merely had an ordinary architect's experience and is willing to sign and presumably carry out the tenets of the "Code Guadet," if he were always better able to design, better able to construct and better able to guarantee the financial interests of his client, than persons who had not signed the "Code," then the situation would be different, but a glance at Monsieur Jamot's book will give the lie to such a cowardly assumption.



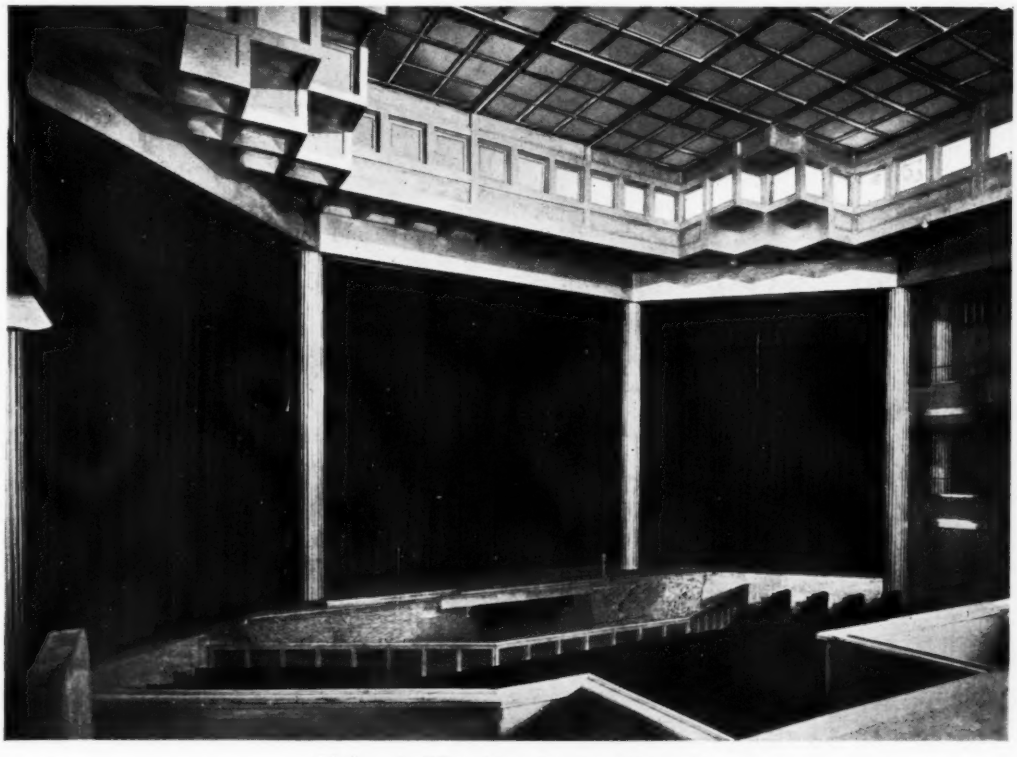
Tomb to the Jamot family, Cimetière de Montparnasse, Paris. By Auguste Perret and Brothers.

The life, works, and above all, the international reputation of Perret frères, their struggle and immense success are points that no would-be organizer of the profession should take too lightly. Perret's architecture now being beyond dispute, Monsieur Jamot's book comes at a timely moment and constitutes an important document of architecture as seen from a modern standpoint. At the end of the book is a list of fifty-seven works carried out in thirty-seven years by Perret frères, dating from 1889 to October, 1926; then follows a *bibliographie* of special articles, pamphlets, and books written on their principal works, including the three buildings before mentioned as well as the theatre at the Exhibition of Decorative Arts, 1925, the tomb in the cemetery of Montparnasse, etc., and lists of articles describing Perret's mission taken as a whole. Four studies published by THE ARCHITECTS' JOURNAL are mentioned.[1] It will be noticed that several articles come from foreign countries, but of course most from France, and not a few in papers and periodicals of general public interest, among which appear *L'Illustration* and the *Manchester Guardian*.

The illustrations, fifty-five in all, are good, and being conveniently arranged in the text written by an able critic, this book should find a favoured place in the architect's library.

[1] The dates of these articles are: December 13 and 20, 1922; February 25, 1925; September 25, 1925; December 8, 1926. A more recent one not mentioned in M. Jamot's book is July 27, 1927.

The small "Salle de Comédie" in the same building as the large auditorium of the "Théâtre des Champs-Elysées," Paris. By Auguste Perret and Brothers.



Théâtre de l'Exposition des Arts Décoratifs, Paris, 1925. By Auguste Perret and Brothers.

NOTTINGHAM'S NEW UNIVERSITY

[BY M. A.]

THE KING, on July 10, opened the latest of Great Britain's university buildings at Highfield near Nottingham. These should certainly be visited by all who are interested in modern academic architecture, for the architect, Mr. P. Morley Horder, has been extremely ingenious in solving a number of difficult problems.

The site, chosen some years ago, was on the slope of a hill with a somewhat insignificant pond in the valley below. This has been enlarged into a spacious lake, and has become one of the most beautiful features of the surroundings of the university buildings. This park was greatly admired by the Duke of Portland, Lord Eustace Percy, Lord Crewe, and the members of the Royal party who attended last month's opening ceremony. A large part of it is thrown open to the public, and here are playing fields, an open-air swimming bath, and a tea pavilion. But the public will not be allowed to encroach upon the central portion, which is sacred to the members of the University College.

Next autumn the students will be using these new buildings. In expressing any opinion on the architectural form it must be remembered that throughout economy had to be considered, and accordingly, although no expense has been spared in obtaining the finest and most durable materials, there is no unnecessary ornamentation. In fact, to some observers, the simplicity of the design may appear severe.

Mr. Morley Horder recognized, too, from the outset that he was building a modern university, and not an imitation of a medieval university. Thus his plan is carefully thought out to allow for labour saving and efficiency of working. He had further to provide for the requirements of modern science in the building of laboratories, museums, and lecture rooms.

A well-known authority on education told me that he had visited many of the modern universities in Europe, and that he thought Nottingham was certainly among the first in Europe in the possession of admirably planned and well-equipped buildings.

The architect would, however, be the first to acknowledge the enormous debt that Nottingham owes to the city's great benefactor, Sir Jesse Boot, Bart. He provided not only the money needed for the building, including the equipment and furniture, and for the layout of the surrounding park, but day and night, although an invalid who cannot leave his couch, he has been devoting unremitting thought to every detail. The great brain that founded and extended one of the most prosperous businesses in Great Britain, for the last few years has concentrated almost exclusively on the planning of the building of this university.

In innumerable ways the work bears evidence of his skill and thought and vision. Throughout he has been loyally supported by his expert representative in Nottingham, Mr. S. Cawley. Several times during the progress of the work I have been privileged to go round with Mr. Cawley, and have been immensely impressed by his skill and devotion, and by the manner in which he has inspired all his staff and craftsmen to give ungrudging service.

Nottingham University. By P. Morley Horder.

Nottingham University. By P. Morley Horder. Above, the University buildings from the south-east. Below, the view, looking south.

The time has not yet come, and this is not the place to relate in every detail the methods employed, but it may be said that the building opened by His Majesty presents many examples to show the modern spirit that inspires the building industry when properly directed, and that building operatives will give the best that is in them when they are enthusiastically interested in their daily task.

Sir James Carmichael, an old friend of Sir Jesse Boot, has played a notable part in the building operations for the last four years, and his lifelong experience and zeal have been lavishly expended for the accomplishment of the scheme. In his speech at the civic banquet, Sir James Carmichael referred to the " genius " of the architect.

I emphasize this personal note, for the building is a co-operative effort more than is usually the case, and many persons have good reason to be proud of this enduring memorial of a local man's passion for the cause of higher education.

The King and Queen approached the University along the new boulevard that has been built on the initiative of Sir Jesse Boot to link Nottingham to Beeston. From this the road circled across the park to the main entrance on the south front, that is about 400 ft. long. This south front contains only two columns, and above has a slender tower that on a clear day is visible for many miles. This tower is criticized in some quarters as being too light, and not in harmony with the masses of the main buildings.

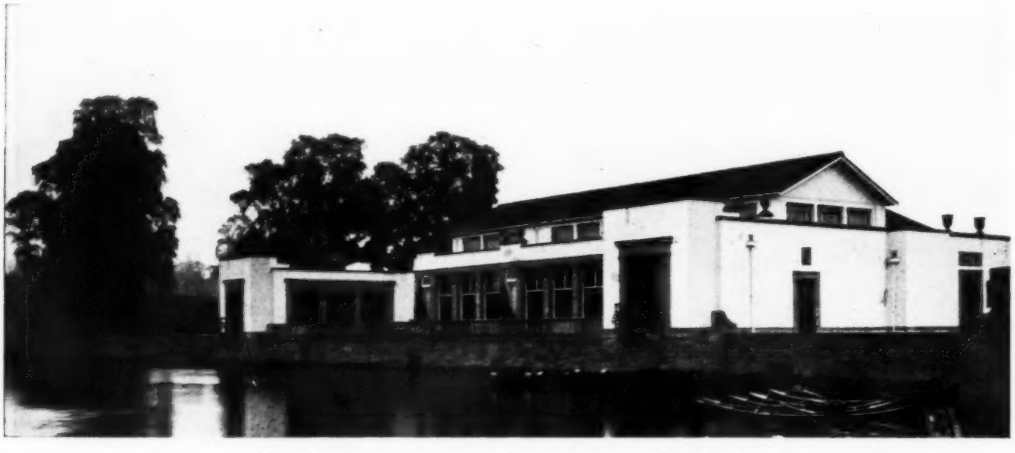
The principal entrance is not unduly imposing, for it is meant to show at the outset that the building is designed for hard work on the part of the staff and students, and not for ostentation. The entrance leads into a main gallery, lined with marble, that runs east and west. Near by is the council chamber and the rooms occupied by the Principal —and it is hoped in time by the Vice-chancellor—and by the other administrative officers.

At the end of the western wing is the Great Hall, constructed of Portland stone. There is a further entrance from a courtyard, and students can enter from the main corridors. There is seating accommodation for 700 people, and a large stage adapted for musical and other requirements. There is an architectural colonnade surrounding the building on the gallery level, and on special occasions the seating accommodation will be considerably increased by the use of this space.

The ceiling has been kept flat with plaster enrichments. These are coloured to relieve the monumental effect of the hall. The gallery front is of oak, and between each bay on the ground floor there are oak panels on which may be recorded the successes of students. The hall is lighted indirectly from the ceiling, and also from the stone enrichments in the centre of each bay. This avoids the use of ornamental fittings, and ensures diffused light.

From the Great Hall a staircase leads to a smaller hall on the floor below. Dressing-rooms that may be used by artistes in either hall, are fitted in between the two levels. The smaller hall will accommodate about 450 people, and will be chiefly used for social purposes and lectures. It has therefore been equipped with a spring dance floor.

Personally, I admire the small hall more than the Great Hall, which has rather an Egyptian atmosphere—possibly a little incongruous with the distinctively English simplicity of the whole building. Both halls are unexpectedly unacademic. One London professor at the opening remarked of the Great Hall that it was reminiscent of a picture palace *de luxe*. This may be intentional, as it will be used a good deal for the music and drama.



Nottingham University. By P. Morley Horder. The tea pavilion.

The library, however, is the finest room of all. It occupies two floors in height, and is a rectangular chamber surrounded by a gallery. The books are on open shelves. Columns treated with scagliola carry the eye from ground to roof, and to the alabaster busts of wise men of the past placed in niches around.

Under the library is the dining hall, the same size as the small hall, with windows also opening on to the terrace. The walls and columns have been lined with Roman marble, while there are oak screens at either end.

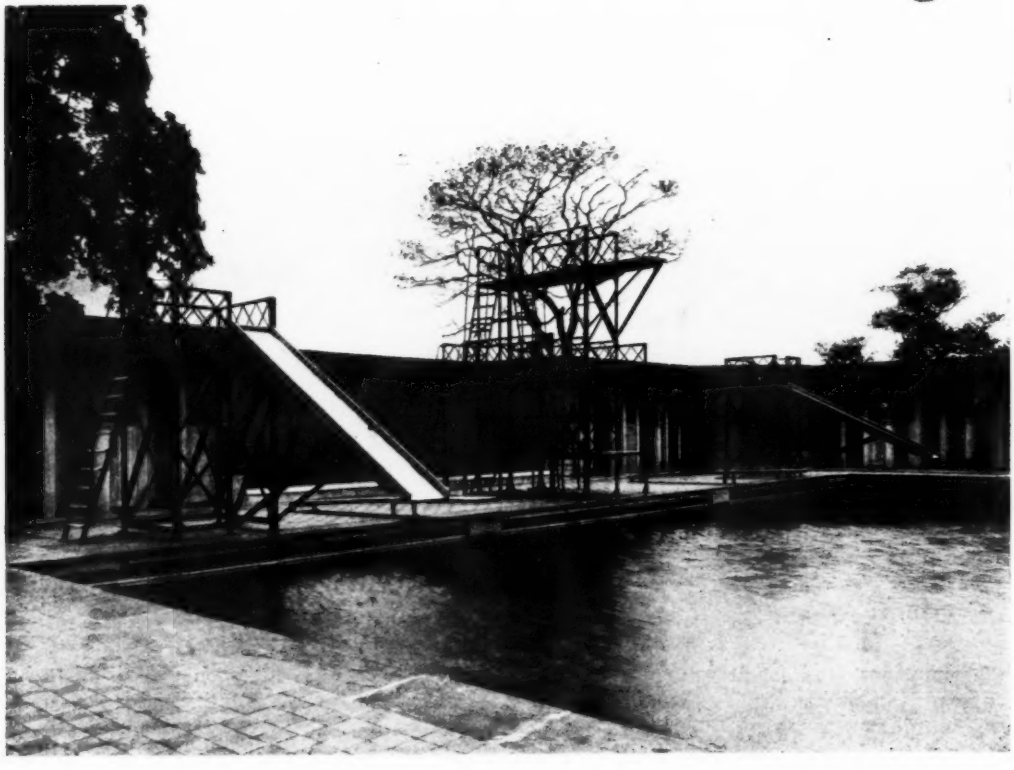
On the first floor of the south block are classrooms and corridors giving access to the galleries of the Great Hall and the library. The second floor about this is entirely occupied by classrooms, chiefly for the Department of Arts, and by seventeen private rooms for the professors and their staffs. In the east and west wings may be found two large examination rooms, which run the whole width of the wings, and various professors' rooms and classrooms.

The science departments are entered from the central court. Here will be found laboratories for advanced and research students studying geology, physics, chemistry, and biology. There are rooms specially designed for lecture

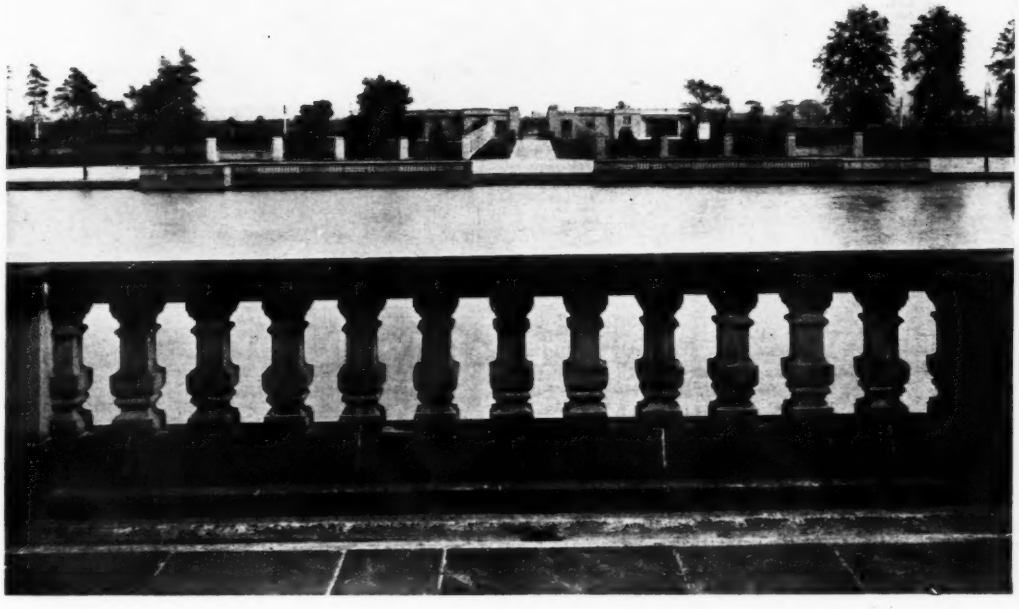
theatres, for museums, and for workshops. The main laboratory for physics has an area of 2,520 sq. ft., and that for inorganic chemistry 2,555 sq. ft.

Finally, it must again be emphasized that the building is designed as the home of a modern university, where science will be called upon to the full to help on local industry. Thus the scientific needs have had to be fully considered. The essential success of the design lies in the fact that it expresses so well the ideas that inspired its generous founder.

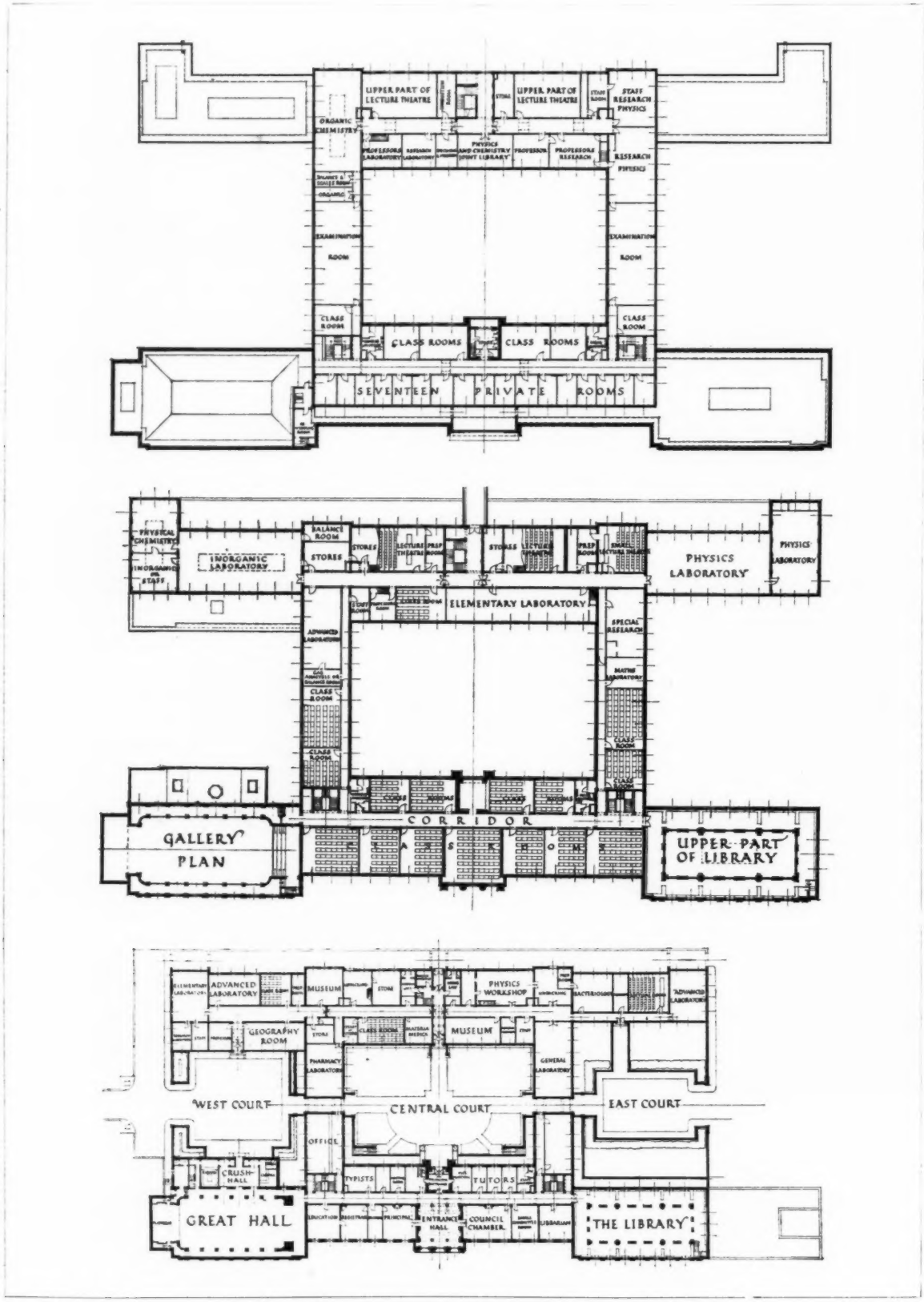
Nottingham University. By P. Morley Horder. Above, the terrace, looking towards the tea pavilion. Below, a view of the park and lake.



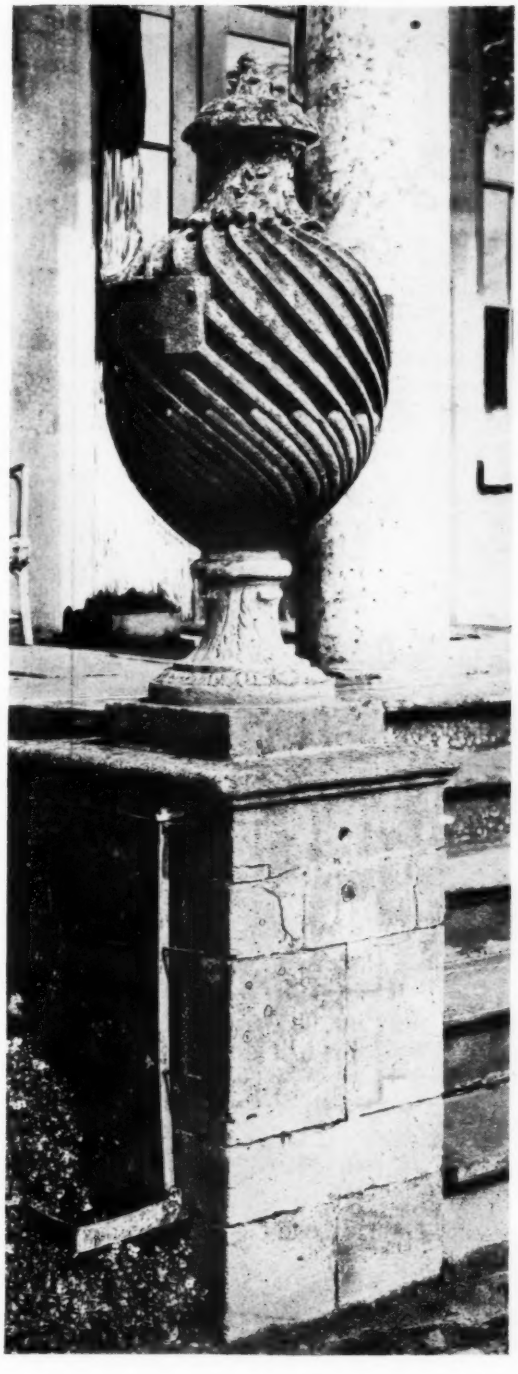
Nottingham University. By P. Morley Horder. Above, the swimming bath. Below, part of the quadrangle.



Nottingham] [University. By P. Morley Horder. Above, looking southwards across the River Trent. Below, the south front.



Nottingham University. By P. Morley Horder. Above, the second-floor plan, showing the examination rooms. Centre, the first-floor plan. Below, the ground-floor plan, showing the great hall, the library, and the three courts.



ENGLISH PRECEDENT

27 *Although some of the detail on the house at Gatcombe, Minchinhampton, is incomplete, there are several exquisite stone vases in different parts of the grounds. Of the vases here illustrated, the left-hand one belongs to a pair which stand at the foot of the steps leading to the entrance portico. The other is situated just below a little wood at the side of the house. There are no remains of any formal garden at Gatcombe, and it is unlikely that the Sheppards, for whom it was built, embarked on any such. The orangery was illustrated in this series last week.*—[THOMAS FALCONER.]

ALLIED ARCHITECTS' ASSOCIATIONS IN THE UNITED STATES: iv

[BY HOWARD DWIGHT SMITH]

[The following article concludes the series which Mr. Howard Dwight Smith has contributed to THE ARCHITECTS' JOURNAL *on the subject of the Allied Architects' Associations in America. The first article appeared in our issue for August 1, and the succeeding ones appeared on August 8 and 15 respectively.—Ed. A. J.]*

In case of the Columbus Allied on the City Hall no office organization was maintained through the competition period, so that matters were fairly well crystallized and ready to begin on the working-drawing stage when a working organization was effected.

The principal features of this working organization, formed in August 1923, are:

1: A production manager, or employed executive, who is nominally responsible to the Board for all branches and phases of the work.

2: The formation of the Committee on Design, whose chairman is the author of the premiated design in the competition. The appointment of other members of this committee is made by the president upon nomination of the chairman of the committee.

3: Fixing a weekly meeting date for the Board of Managers, with the production manager and clerk of the works (when employed), in attendance. (A representative of the city administration usually in attendance.)

4: Appointment of an Executive Committee of two members of the Board, by the president, to act for the Board between meetings, to advise with and direct the production manager.

5: Preparation of a budget of office income, expenditure, and profit for the entire commission.

6: Employment by the production manager of all subordinates, and fixing their salaries, subject to the approval of the Board.

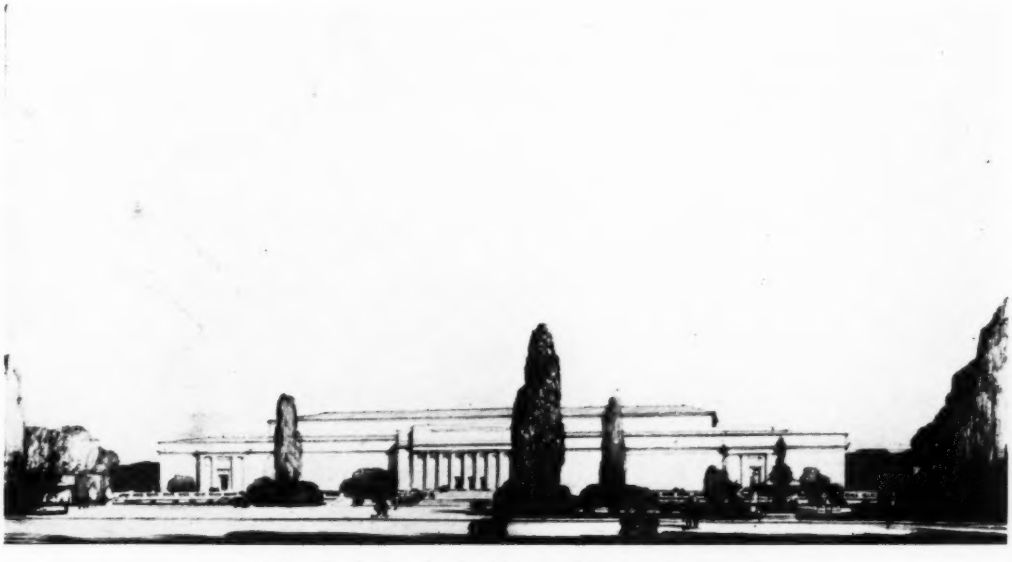
7: Fixing of an hourly or daily rate of remuneration to be paid to members of the Association for any service required of them during the process of the commission. This includes remuneration for the Executive Committee and Committee on Design.

8: Renting and maintaining quarters, equipment, files, samples, etc.

9: Establishing an accounting system, providing for expenditures authorized by the Board on vouchers signed by the treasurer and countersigned by the president, and for a petty cash account administered by the production manager, subject to accounting to the Board.

With an organization such as this set up and properly functioning the procedure is exactly similar to any private practice, unless possible exception may be taken to the fact that final authority in any matter affecting design or operation is not actually resident in the office, which might be cause for delay in decisions or procedure. (It is not entirely clear that private practice is free from this drawback.) All contract documents have been prepared, including the form of public advertisement required by statute, the blank forms upon which bidders must submit their proposals to the city, the tabulation of proposals received, with recommendations for award of contracts, the contract agreement between the city and the contractors, and certificates issued to the contractor for presentation to the city to receive payment on account of executed work.

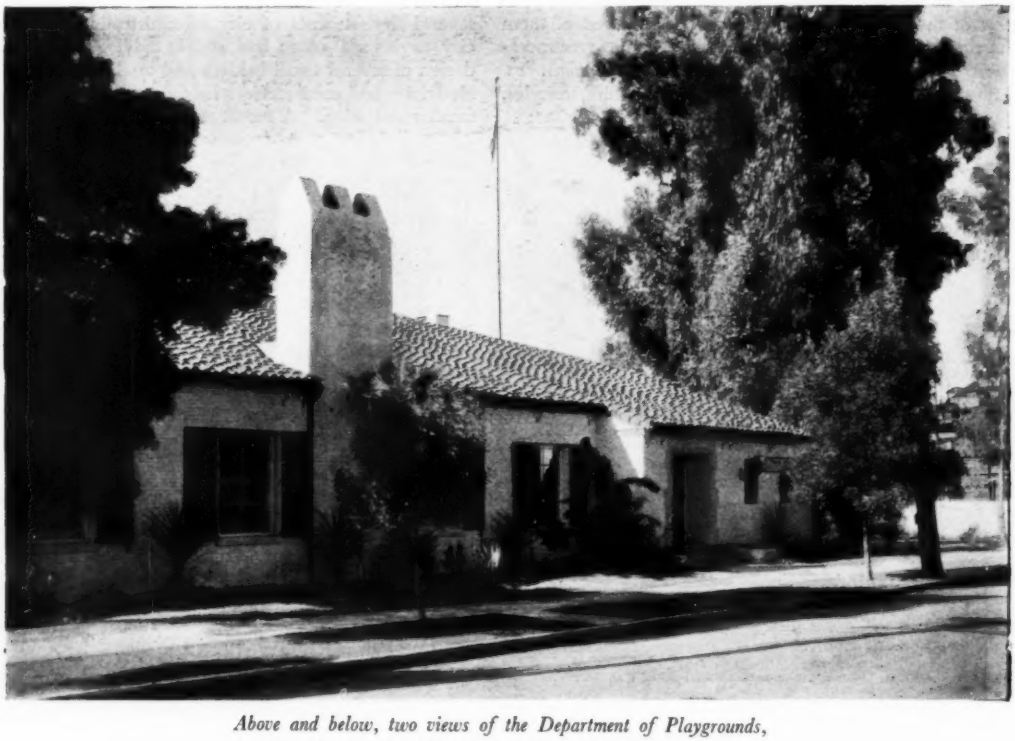
The existence in any community of an organization having contacts with public construction work, such as is here described, suggests the possibility of its use and its participation in a number of corollary activities. In Columbus, for instance, the Allied is at the present time looked upon as a sort of informal and extra-legal adviser on structural and artistic matters affecting the several departments of city administration. For instance, the city engineer's office has sought advice with reference to the design of several small bridges and viaducts. The department of electricity has used services in connection with the erection of a small sub-station. A member of the Board is acting on a joint



Design for the Los Angeles Museum of History, Science, and Art. By the Allied Architects' Association of Los Angeles.

committee of city and county officials to study the remodelling of a bridge-head adjacent to the civic centre group. A committee of the Board prepared preliminary studies for a proposed central market house in order that the city officials might have an estimate of cost to submit to popular vote for funds. For the fire department one small sub-station has been designed and its construction supervised as a separate 6 per cent. commission, and a programme has been prepared for a similar new project.

Work has also already begun upon a large building for the police department, another unit of the civic centre group, which will be about as large as the original city hall commission. For the project a competition was held in one stage, based partly upon the first stage data of the city hall competition. The



Above and below, two views of the Department of Playgrounds, Los Angeles. By the Allied Architects' Association of Los Angeles.

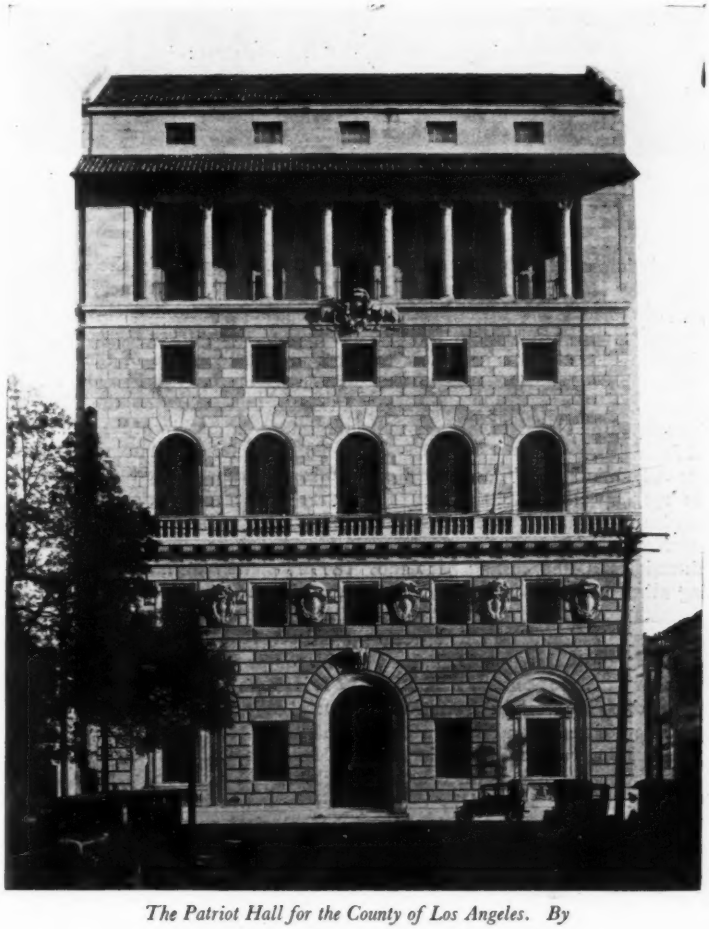
organization procedure has been exactly the same as in the case of the original city hall commission, the only change of personnel being the chairman of the Committee on Design, selected as a result of the competition.

In Los Angeles a rather unique corollary activity, referred to previously, is inferred by the last part of their by-laws section on "objects," which suggests that individual members of the Association may secure the services of the Association for their private use. By such means the young architect may avail himself of an established and experienced technical, draughting, and specification service which would be of inestimable value to him in his inexperience. He may also have the inspiration and assistance afforded by a library which might be more extensive than his own. By such means the small practitioner could assure himself of the technical assistance of experts whom he could not afford to maintain in his own employ. By such means also, even the large office may temporarily expand its production under stress of peak loads without undue permanent expansion of force or quarters. These are obvious advantages, to which must be added also the possibility of a certain amount of structural and technical standardization in a given community which may make for greater accuracy of delineation and quantity surveying, and consequent simplification and economy of execution. If no effort or attempt is made to render actual designing service to individual members, the obvious disadvantage of æsthetic standardization may be partially, if not wholly, avoided.

Several objections have been raised to this individual service feature. One of these is its obvious possible effect upon the competitive field. The relative merit of the professional services which might be rendered would be hard to judge by a prospective client, and if made universal the practice of architecture as a profession might shift to a competition of diagnostic salesmen. However, the modern forms of specialization in the practice of medicine, for instance, are cited as a possible parallel.

The question of the actual legal status of Allied Associations has been fairly well established by a recent experience of the Los Angeles Association. We quote from a recent statement made by Mr. Edwin Bergstrom, president of that Association: "The Association, functioning on public work, is subject to political attack . . . and must expect to have its motives questioned, its compensation questioned, and its legality in service assailed." An important contention of the *quo warranto* proceedings against the Association was that the services being rendered by it could be performed by individuals only. In the first court proceedings the injunction sought was denied without leave to amend. On appeal from this first decision the case was taken to a higher court, which upheld the lower court, but not without considerable delay and inconvenience. The opinion of the supreme court established fully and finally that associations of architects in any number, when legally incorporated or established, may render full and complete professional service. The only restriction in California is that each member must have complied with the State's licensing laws.

The commission work of the Los Angeles Association during the seven years of its existence has included the design of the exterior of the Hall of Justice; the Los Angeles Museum of History, Science, and Art; Patriotic Hall of Los Angeles; Los Angeles County General Hospital (acute unit); three playground buildings for the Playground Department; and the Hollywood Bowl (Stadium). The value of this work is in excess of $10,000,000.



The Patriot Hall for the County of Los Angeles. By the Allied Architects' Association of Los Angeles.

The Los Angeles County Hall of Justice. By the Allied Architects' Association of Los Angeles.

The work of the Columbus Association has already been alluded to. Its commissions include the City Hall, costing $1,200,000; a police headquarters and gaol, $750,000; two substations for the Fire Department, $25,000 each; and a substation for the Department of Electricity, $16,500.

The Denver Association's efforts have been confined to the Civic Centre project and the $5,000,000 City Hall. All drawings for this building have been completed and actual work on the structure is expected to proceed forthwith.

In the City of Louisville, the Allied Architects' Association of Kentucky was incorporated in 1925 by eleven members of the Kentucky Chapter of the American Institute of Architects, for the sole purpose of rendering professional services to the University of Kentucky. An Administration Building costing $250,000 has been erected, and, pending other work, the activities of the Association have ceased.

In the City of Washington, the organization of an allied group in 1924, known as the Allied Architects of Washington, D.C., Inc., aroused a great deal of interest among the architects of the entire country, because of the importance of public work in the national capital. In years past the supervision of design and construction of the building erected for the Federal Government in Washington has been in charge of the office of the supervising architect or, in some cases, in charge of private practitioners selected by direct appointment or as a result of competition. It appears that the architects of Washington have been from time to time of some assistance to Government agencies by affording them suggestions and informal advice in preparing data for Federal projects, and serving on voluntary architectural juries, functioning with semi-official capacity. The organization of the Washington Allied, therefore, is apparently the outgrowth of conditions peculiar to the capital city, and the crystallization of their informal efforts. Their group, patterned closely upon the Los Angeles scheme, consists of thirty-three members, whose officers and seven directors are all members of the American Institute of Architects. Their secretary, Mr. Horace W. Peaslee, is chairman of the Institute Committee on the National Capital, which indicates the inter-relationship of interest.

To quote from a statement by their secretary, they were organized " primarily for the purpose of permitting a representative group of the Washington architects, rather than possibly a few individuals, to become directly connected with some of the large Federal projects. The first work, and so far the only work, which the Association has handled, has been the making of preliminary plans for the new office building of the House of Representatives. These plans were completed in 1925, and have remained with the architect of the capital, pending the decision of Congress to proceed with the project."

It is probably safe to say that in the short time during which the several allied groups have been functioning no building has been erected under their supervision which transcends the architectural field in the United States. The effect of the movement upon architectural practice, particularly upon that involving public buildings, will have to be determined in the light of a greater chronological perspective. At present it can only be considered an interesting incident in current architectural practice, which seems to have some basis in a desire on the part of public-spirited architects to be of service to their communities and to the profession by co-operative professional effort.

[*Concluded*]

The Ford Laboratory, Experimental Building, Dearborn, Detroit. By Albert A. Kahn.

SINGLE-STORY FACTORY ROOFS OF AMERICA

[BY D. T. WALLIS]

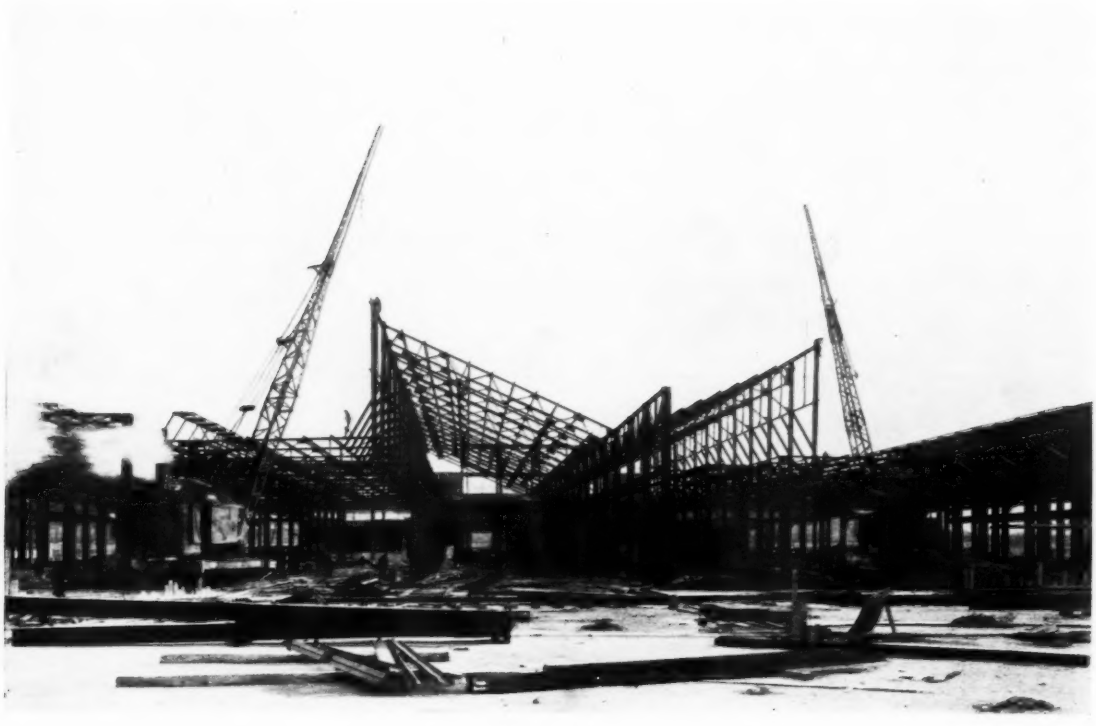
MANY of America's foremost architects consider north-light factory roofing to be obsolete for all but a few manufactures. This form of construction has given way to a variety of new combinations of trusses giving better lighting and ventilation. For reference the term *butterfly roof* is used to distinguish this new construction.

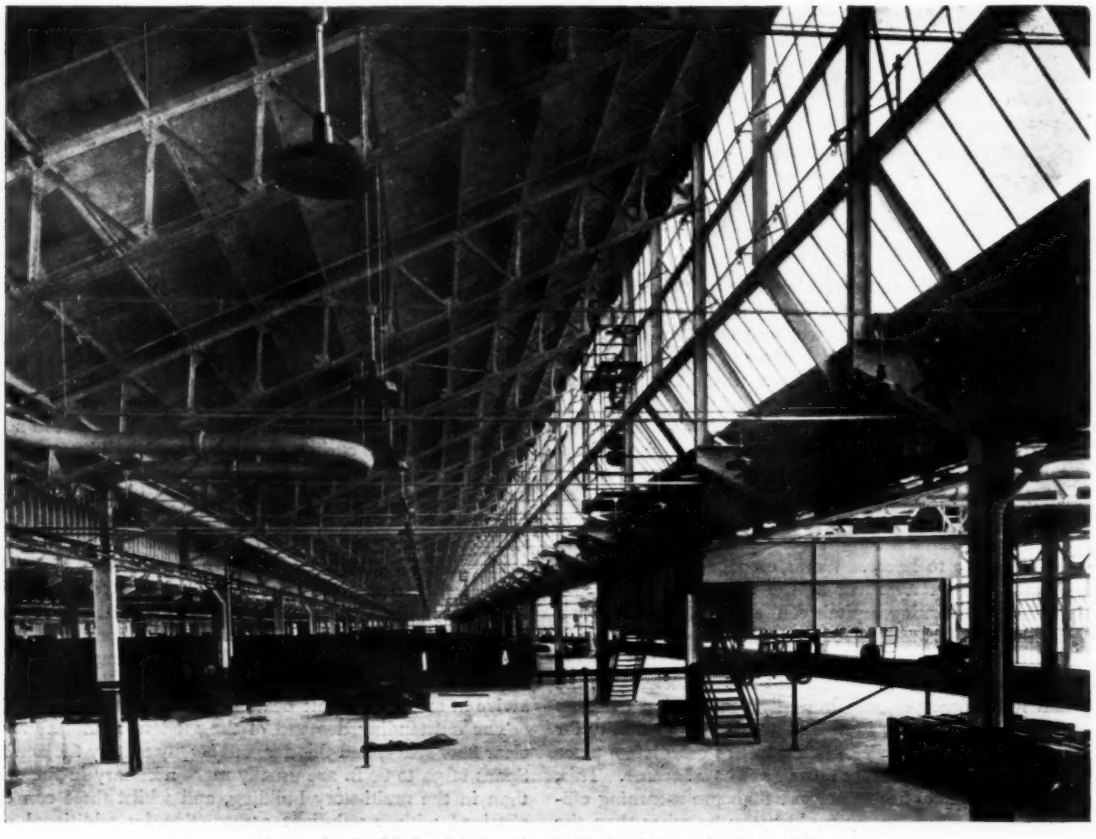
During my visit to the States this year I made a special study of roofs of this *butterfly* type in the many factories I visited. It is surprising how little they have been discussed in England, seeing that the earlier forms have been in use in America for a number of years. There this roof has evolved naturally, inevitably, perhaps, from the demand for greater efficiency made by the companies they help to house. Works managers and engineers expressed their utmost approval of the results achieved, and the enormous profit-earning capitals of the companies concerned (for whom the best is barely good enough) add weight to this approval.

Apart, however, from the improvement in the efficiency of the factory and its workpeople, this butterfly construction possesses many qualities that give the industrial architect opportunity for making the single-story factory building just as complete a piece of architecture as the multi-story factory has now become. This, it seemed to me, was no less important than profit-earning efficiency. The north-light factory could never be other than the crudest possible expression of a material age—existence without achievement—and when most informed leaders realized the effect of environment on the worker, north-light construction was doomed.

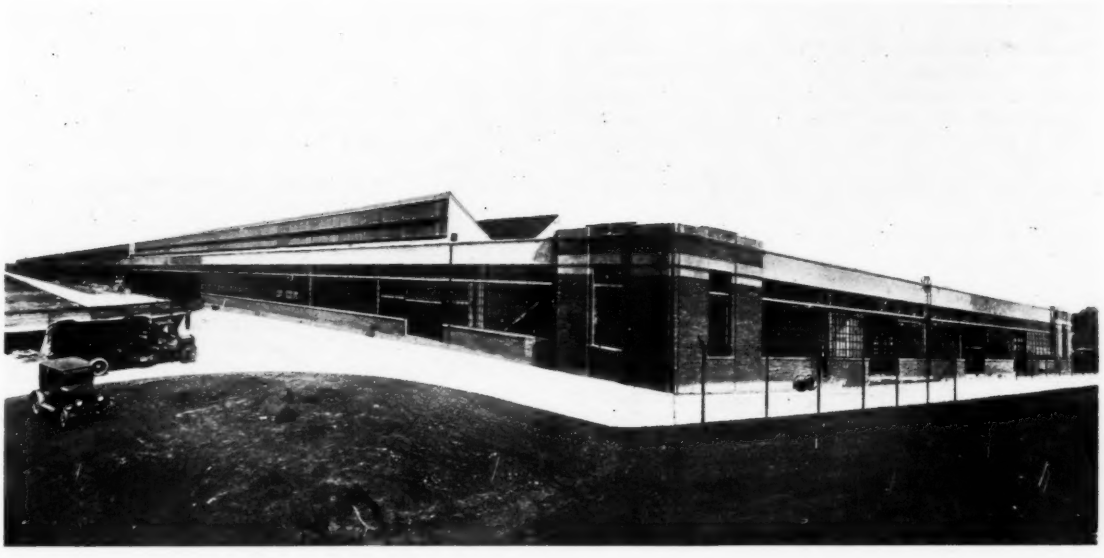
Hitherto, the multi-story building stood alone in having gained for itself a definite style of architecture with a definite beauty of line expressing itself frankly. Somehow or other the north-light or saw-tooth roof was irritating. It epitomized the ugliest features of an industrial age, and to cover the spandril ends did not solve the problem. It is curious that this irritation did not prompt the conclusion that north lighting was inherently wrong, and it is not surprising that the research for improved lighting and ventilation has altered this jagged elevation to one quite symmetrical, and possessing a skyline of varying heights and pleasing proportions. These roofs can now receive the care and thought comparable with that given to roofs of buildings of less utilitarian value and, without being sensational, may create a really modern elevation. The animated butterfly shape combined with the little "A" frames, as seen in the illustrations, suggest to the industrial architect possibilities which, when fully developed, may arrive at something quite beautiful.

The outstanding demand of the modern manufacturer is for clear floor space, and this demand is fully met by the new design. Spans of 50 to 60 ft. are usually more necessary in the one-story than in the multi-story building, and whilst these can only be obtained with north-light construction by additional crudity, butterfly construction solves the problem as lightly and delicately as its name implies.





Above, the Studebaker Works, South Bend. Below, the Ford Motor Company's assembly building, Somerville, Mass. By Albert A. Kahn.

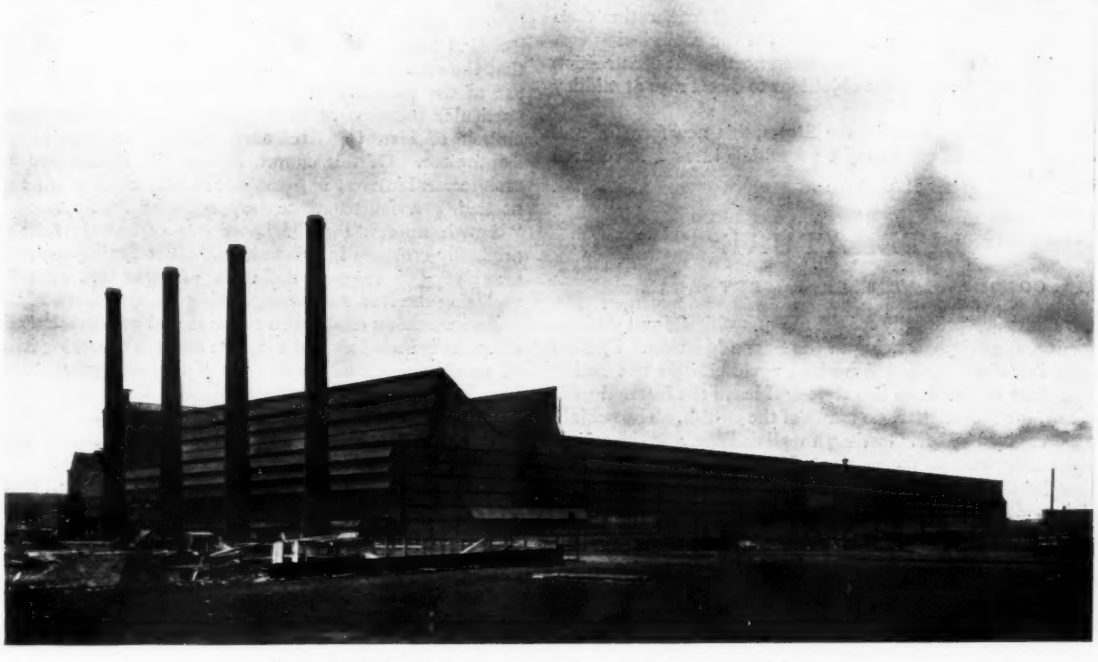


The internal fixtures that so often give rise to criticism of the architect when difficulties are met in their fitting, lose their appearance of excresence, and the symmetry of the new form seems naturally to receive fire sprinkler or heating pipe.

The north light, with its awkward angles, made flashings not only difficult, but numerous, and flashing is an expensive item. It is a weakness in factory construction, and should always be so regarded. Ridges are only a little less objectionable. In the butterfly construction flashings become a minor matter, and ridges are not only considerably reduced in number, but the awkward angle disappears. In the States this ridge is usually made of clay tile of large section.

By reason of the usual channel gutter the north-light roof presents a poor appearance from the inside of the factory. It is not always possible to place the channel gutter centrally over the beam, and in consequence the outlet to the rainwater head will not be on the same vertical axis of the column on the exterior elevation. Butterfly roofs are treated for their disposal of surface water just as if they were flat roofs. The rain water is carried away in sumps at intervals along the stretches of roof whether on the flat portions or in the angle of the butterfly trusses.

In order that the direction from which the light enters the building may be always changing throughout the day these roofs are placed east and west. Tests have been made, and it has been proved that operatives suffer less fatigue when the object upon which they are working has varying intensities of light cast upon it. The direct beam of light, however, is diffused by the use of prismatic or ribbed glass, so that this variation may be kept within working limits. There are articles which will not withstand this alteration of light values, but the majority of manufactures are



Above, the Dodge Factory, Detroit, Michigan. Below, the Ford Motor Company's glass factory, Fordson, Michigan. By Albert A. Kahn.

not affected by even a very strong light for short periods during their creation.

As the illustrations show, an excellent natural ventilation is brought about and is controlled by automatic opening gear. In some factories visited, ranges of glass over 800 ft. long were operated by one push-button, the entire length of glass moving *en masse*. Whilst this is recommended for certain factories, about 100 ft. stretches are preferred by most works managers as a maximum.

Window makers will find interesting scope for their ingenuity as the *butterfly* roof comes into its own. Ventilating panes in north-light construction have in the past been both inefficient and inadequate, and operating gear is better passed over in silence. With the newer roof continuous hinged ventilators, now almost commonplace in America, will make their advantages known on this side of the Atlantic. This type of sash, whilst giving 100 per cent. ventilation at a cost little more than that of fixed glazing, is of exceptionally robust construction, and is so completely weathered that it may be opened during rain without fear of inconvenience. The full length of a building may be ventilated with no more effort than is required to press a button.

In the States the window sections are usually of heavy construction and are painted periodically to protect them from weather; lead-covered bars are seldom used. The type of gear most favoured has a continuous rolling bar that actuates by means of pinions—racks suitably spaced that pull on stout brackets fixed to the ventilator frames. A maximum opening of 80 per cent. from the vertical can thus be obtained, and the power is supplied by motor or chain as may be desired. Such gear is easy to operate, economical, and can hardly give trouble.

At the end of each stretch of glazing, fixed glazed storm panels are usually fitted to prevent water being blown in at these points, for which purpose they are extremely effective. The facilities for cleaning the glass are much more convenient than with north-light construction, and the cleaner can work freely from the flat portions of the roof. The importance of this detail has not in the past received the attention it has deserved, but the cost accountant has undoubtedly influenced current practice by insisting that whilst lighting costs must be kept down by periodic window cleaning, the cost of such cleaning must also be reduced to a minimum.

The use of side-wall glazing is not in any way restricted by the new design. In fact, the large roof glazing areas enable a more free expression of individuality in the side-wall fenestration than was previously possible, and the placing of the roof glazing east and west gives additional light lost when north-light construction is used. At the same time, the objections to direct rays at midday are entirely overcome.

After my industrial tour in the States, this new form of roof construction was one of the most promising ideas I have been able to introduce into our office.

LITERATURE

COLOUR-PLATES OF ROBERT ADAM

THESE plates are primarily for the use of architects and students in America, the originals being in the Soane Museum. I gather from the introduction that American architects do not realize it is a mistake to design in this style and leave the internal work white, nor, for that matter, do many of the British. The subjects of the plates given by Mr. Geerling are all ceilings, and the colours are reasonably true to the original drawings; the line drawing is rather hustled; the preface, charmingly written, makes clear that Adam designed all his furniture and gear, when he could, to join in the decorative effect. But Mr. Geerling omits to state that the people of Adam's time dressed to the architecture, and I rather doubt the feasibility of reviving the style in an America of plus-fours. Adam had so wide a public support for colour—Mrs. Powys, the diarist, writing from 1750 to 1800 (about), fills her pages with the names of great ladies devoted to needlework, not to make the heathen sweat, as in a later epoch, but as an art to adorn their palaces and be a handmaid to architecture; and she tells also of dresses, especially the men's; how "Mr. Hanger, brother to Lord Coleraine, was drest in a sky-blue paduasoie, the seams worked with gold, gold cuffs and waistcoat, a velvet muff trimmed with cheneal blonde, and long streamers of the same, a large white feather on his hat." First, let Mr. Geerling convert millionaire Ford to a coat of sky-blue paduasoie, and President Coolidge to cheneal blonde, and the Adam décor may be added unto them.

But, as well as plates and an environment, a philosophy is necessary. Robert Adam was a very rare type in British architecture, he was in his internal work a great decorative architect; that is, he purposely lowered the lights on mass and line to give the emphasis to colour. The modelling is purposely slight to prevent shadows being thrown on the colour and destroying its purity. The lines on the ceiling have no reference to the construction by joist or beam, but are derived atavistically (to use a cant adverb) from the plans of fan vaulting, sub-vaulting, domes, and pendentives; that is, the lines are derived from constructional architecture and are used to construct the shapes for colour. The lines are false decoys and nets to attract the eye which comes to rest on the colour and feed on it. Colour is the most important and original part of Adam; but decoration so much was his main theme that externally, where colour was absent, he would throw a simple arch over some intricate Palladian motive and turn all its elaborate construction into a decorative panel.

The colours shown on Mr. Geerling's plates are pale blue, grey, gold, black, green, pink, and white; all very cool. Adam had to dislodge a taste for much warmer tones, especially for a crimson much in vogue from Stuart times on damask hangings. I wonder what influences he used to rid us of that crimson and its lusty fellows—the rise of feminine influence and refinement, the shivers produced by the American War of Independence, the need for wall colours which would not kill the pale assemblage of the English landscapes? Was it these? If so, let foreigners beware of copying.

P. M. STRATTON

Colour Schemes of Adam Ceilings. By Gerald K. Geerling and Betty F. Geerling. New York: Charles Scribner's Sons. Price 7s. 6d.

CHURCH BUILDING

Those who have churches to build or to mend will turn with interest to the current report of the Incorporated Church Building Society, which exists to assist their activities, provided that the seating accommodation is wholly or largely free for the use of the parishioners. The repair of old churches is given particular prominence in the report, and a photograph of the church of Hadleigh St. Mary, Suffolk, is reproduced as its frontispiece. Of this church it is stated that it has a special architectural interest in being one of only eight or nine churches possessing a fourteenth-century spire of lead-covered timber, "though no less than eight of our cathedral churches were originally crowned in this fashion." The Society assisted with a grant of £50 towards the work of removing, recasting, and replacing the lead and strengthening the woodwork of this spire.

An interesting essay upon the care and preservation of ancient churches is included in the report, and the charming irregularity of genuine medieval masonry is rightly insisted upon, and the hard cogwheel coigns of modern Gothic are mentioned as things to be avoided. "Let there be no truck with the foolish fear and fallacy that modern work must tell its own story lest the elect be deceived. Modern work will tell its own story anyhow and anywhere, however well done. It may be laid down as an axiom that any work of repair to an ancient building is at fault if the spirit of craftsmanship of the work repaired is wiped out in the process." A warning is issued against the misuse of cement pointing to old masonry and against "the jobbing builder's advocacy or use of cement as a panacea to cure all building ills," a practice described by the author as "fundamentally unsound." The warning is not only needed by jobbing builders, however, for it was only a few years ago that the St. Paul's Commission proposed to rely upon cement grouting without reinforcement

The Bronze Chimæra from Arezzo. [*From* The Etruscans.]

for the repair of the cathedral, and outside criticism was needed to mitigate the over-confidence of the Commission and suggest the addition of the metallic reinforcement that is now being employed. On the question of the death-watch beetle the pronouncements contained in the essay are not all so worthy of respect. It is not always true that "the food sought by the beetle is damp wood. Thus he seeks sap-wood, and years ago ate up the sap-wood introduced by the medieval constructor. Eliminate sap-wood and keep timbers dry, and the beetle will give no trouble." In Westminster Hall the heart timber of the gigantic beams was found infested even more than the sap-wood in positions where other conditions proved favourable, and living larvæ were discovered in spendidly hard, dry, well-seasoned wood. Much sap-wood remained intact, where it happened to be moderately exposed to light and air, and heart-wood was eaten to shreds if it was well hidden from view and in the dark. The danger would have been ignored and a terrible disaster invited if the optimistic statement quoted above had been relied upon. Minute and detailed examination is necessary in every case, and periodical surveys should be encouraged.

Under the title "Providing for the Future" the suggestion is made that endowment policies should be taken out towards the repair of churches after a certain period, and a case is quoted in which a premium of just over £12 a year provided a sum of £1,000 at the end of forty years. The money can be invested through the society, "which, as a corporate body, can legally act as the trustee of such fund. . . . Nearly 500 funds are now held by the society on behalf of particular churches."

A statement of the laws and regulations of the society and of the conditions and requirements concerning grants should be read by architects before completing their designs.

WILLIAM HARVEY

The Incorporated Church Building Society. Annual Report for the Year 1927. Office of the Society, 7 Queen Anne's Gate, Westminster, S.W.1.

THE ETRUSCANS

Hitherto, for any authoritative account of what is known or may reasonably be conjectured about the nature of Etruscan civilization as a whole we have had to turn to works formidable both in their contents and their cost. Beyond these sources of information there have been the archæological journals with their specialist articles on particular aspects of the subject—such as the problem of the Etruscan language, the origin of the race, its burial practices, architecture, metal work, terra-cotta, pottery, and jewellery. In the present book we have for the first time a picture of the Etruscan people, their history, their art and customs, clearly presented on a small canvas. Dr. Randall-MacIver addresses himself to a public which he assumes to be no more than vaguely aware that the Etruscans once inhabited the land now called Tuscany and that they preceded the Romans as a power in Italy. His object is frankly to entice the reader into the study of the civilization which he depicts, to engage his interest so that he will be impelled to pursue his researches by further reading and by visits to museums and actual sites. The book is well calculated to have this effect. It is agreeably written, it is illustrated with good photographs and drawings, and it is at the same time practical. The reader is given not only the main ascertained facts about the Etruscans, including the latest discoveries, he is directed to the objects most worth studying in the principal museums and advised as to the best sites and the best ways of reaching them.

Every student of architecture learns that it was from an Etruscan source that the Romans derived the masonry arch and a form of temple, features of which continued to survive in their subsequent adaptations of Greek models. He is told, too, of the sepulchral architecture developed in Etruria, of conical tumuli covering rock-cut chambers on whose walls are modelled structural decorations in relief. But that normally is about all that he is told. Dr. Randall-MacIver fills in the background; and it is remarkable how fully it can now be filled without any key to the Etruscan language and without the support of an authentic written history of the race, Greek or Roman. From the objects found in tombs at such places as Corneto, Cervetri, Veii, Narce, and Falerii, from other remains and from historical references in the literature of antiquity, it is possible to reconstruct the rise, decline, and fall of the Etruscan State, to distinguish and approximately to date the phases which mark the development of the arts and crafts, to grasp something of the organization of society, its religious beliefs and customs, its games and amusements, dress, and much else besides. All this is admirably treated by the author within the space to which he has restricted himself. To compress so much within so small a compass and yet to produce a book that is well-balanced and pleasant to read is something of a feat. Dr. Randall-MacIver has accomplished it very competently.

LIONEL B. BUDDEN

The Etruscans. By David Randall-MacIver. Oxford University Press, 1927; pp. 152; illustrations 15. Price 6s.

LAW REPORTS

RIGHT OF WAY DISPUTE

Attorney-General at the relation of the Billericay R.D.C. v. *Tasker. Chancery Division. Before Mr. Justice Clauson*

In this action the plaintiffs were successful in establishing that the public had certain rights of way over land from Bushwood to Mountnessing, belonging to the defendant, Mr. E. E. Tasker, of Bushwood, Hutton. Defendant purchased from Lord Petre's trustees and denied that there were any rights of way as alleged.

Evidence was called both on behalf of the plaintiffs and the defendant.

His lordship, in giving judgment, said the defendant occupied a house near a main road used by motor-coaches, and the path in question was used in a way which defendant found exceedingly inconvenient and unsatisfactory. It was a distinct detriment to the amenities of defendant's property that the public should have rights across the path, and he could be entirely acquitted of having taken up an attitude which showed any want of public spirit. The question, however, was whether a public right to the track had been established? He was satisfied that the plaintiffs' witnesses had used the track without any notion that they were acting otherwise than quite lawfully or in accordance with their rights as members of the public. The path had been used in a way which could be described as a user as of right and he was entitled to hold that the path had been dedicated to the public as a bridle way at some time prior to the beginning of the nineteenth century. The plaintiffs succeeded in the action and there would be a declaration that the path in question was a bridle way.

COVENANT TO INSURE: HOUSE OF LORDS DECISION

Lord Tredegar v. *Harwood and Others. House of Lords. Before Lords Dunedin, Shaw of Dunfermline, Phillimore and Blanesburgh*

This case, which raised an important point as to insurance o property, has been reported in THE ARCHITECTS' JOURNAL, through its various stages in the Courts below.

In the House of Lords, the appeal was by Lord Tredegar, ground landlord of property at Cardiff and Newport. The respondent was the assignee of a building lease for ninety-nine years, under which a house had been built. The lease contained a covenant by the lessee to "insure and ever afterwards during the said term keep insured the said messuage . . . in the joint names of the lessee and the lessor in the Law Fire Office or in some other responsible insurance office to be approved by the lessor. . . ."

Mrs. Harwood, when the lease was assigned to her, mortgaged the demised premises by way of sub-lease to the respondents, the Principality Building Society, and the mortgage contained a proviso that during the subsistence of the security the premises should be insured in the Atlas Insurance Company. Accordingly, Mrs. Harwood, instead of continuing the then existing policy in the Law Fire Office, insured in the Atlas Company in the names of the appellant and of herself and the building society. That was done without the knowledge of the appellant, who refused to accept that insurance or to approve the Atlas Company, and he brought this action against the respondents for forfeiture of the lease by reason of breach of covenant. The appellant, however, stated by his counsel that he did not desire a forfeiture, but brought the action for the purpose of obtaining a decision on the true construction of the covenant. His reason for requiring insurance in the Law Fire Office was to facilitate estate management.

In the Chancery Division Mr. Justice Tomlin held in favour of Lord Tredegar, but the Court of Appeal reversed the decision. Lord Tredegar then appealed to the House of Lords.

The Law Lords now, by a majority, reversed the decision of the Court of Appeal and revived the decision of Mr. Justice Tomlin in favour of Lord Tredegar.

Lord Dunedin said he was quite unable to concur with the judges of the Court of Appeal. It seemed to him that they introduced complication and inference into an expression where there was no room for one or the other. It was admitted by counsel for the respondents that, if the word "responsible" had been omitted, it would have been impossible to say that any office could be properly tendered which had not been approved by the appellant. He thought it was a quite impossible burden to put on the word "responsible" to change all this. The reason for the existence of the word was simplicity itself. It was necessary to put in some alternative to the Law Fire because this was a ninety-nine years' lease, and before the end of it, it might be that the Law Fire did business no longer. It might be liquidated or bought up. Then some other office had to be selected. No office that was not responsible was to be entertained, but, however responsible, it was to be approved by the appellant, and to his mind the appellant's reasons were eminently reasonable.

Lords Shaw and Phillimore concurred. Lord Blanesburgh dissented.

LIABILITY FOR FALL OF A TREE

Lawrence v. *George Matthews*, 1924, *L.D. Court of Appeal. Before the Master of the Rolls and Lords Justices Sankey and Russell*

This was an appeal by the defendants for a decision of the judge sitting at the Wolverhampton County Court as an arbitrator.

The respondent Lawrence was a commercial traveller in the employ of the appellant and was driving his motor-cycle along a road while on business for appellants, when a tree fell and injured him so severely that he died of his wounds. The County Court judge awarded compensation. A violent wind was blowing at the time of the accident, and the appellants contended that the accident arose from the action of the elements and not from any user of the highway ordinarily made necessary by the employment.

The Court dismissed the appeal by a majority, the Master of the Rolls dissenting.

The Master of the Rolls in giving judgment, referred to the many numerous and conflicting authorities and pointed out that the deceased man had chosen his own means of locomotion. It was not by his employers' orders that he was where he was when injured. He was not under any particular duty to be in that spot, or to travel by that road, or at that hour. He (the Master of the Rolls) did not think that employers could be held liable for any accident of the highway which might happen in that way, but he had had considerable difficulty in coming to that conclusion, particularly as it involved differing from his colleagues.

Lord Justice Sankey took the view that employers were liable for accidents in streets and public places where the injured person was in the course of the employment, and the course of the employment took Mr. Lawrence to the locality where the accident happened. That being so, it was not necessary to go into the cause of the falling of the tree. Whatever the ultimate cause of the accident, it clearly arose out of the employment.

Lord Justice Russell agreed with Lord Justice Sankey.

RIGHTS IN A LANE

Wood v. *Drughorn. Chancery Division. Before Mr. Justice Tomlin*

This was a motion by the plaintiff, of Church Cottage, Ifield, Sussex, for an injunction to restrain the defendant, Sir J. F. Drughorn, from interfering with her use of a lane and for an order calling upon him to remove an obstruction which had been placed in this lane.

Mr. Gavin Simmonds, K.C., for plaintiff, stated that the lane here in dispute ran behind the plaintiff's cottage and gave access to the back of it. Plaintiff had been in occupation of the cottage since 1919 and recently she acquired a small motor-car and built a garage. All the time she had been in occupation of the house she had used this lane for the purpose of conveying things such as manure for the garden and coals for the house to her premises. Since building the garage she had used the lane for getting her motor-car to and from it without any notice of any kind. The defendant built a pale fence and deposited twenty loads of rubble against it. This had made it impossible for plaintiff to get access to her garage. The rubble was deposited while the car was out and plaintiff had since been compelled to garage it in the village.

Plaintiff denied that the lane was a private one belonging to the defendant.

Mr. Stables said his client was the owner of Church Cottage and of a very large property all round. For the first time plaintiff had in recent times put in a large gateway through which she could drive her car. Until that gateway was built it was not suggested there was any access from plaintiff's cottage to this lane.

The Judge: If you have a right of way over a lane for all sorts of traffic so that you can drive alongside your hedge in which you have a wicket gate through which goods can be carried, nobody can complain because you put a bigger gate in your hedge and allow that which rightly comes up the lane to pass on to your premises through that bigger gate.

After further argument, his lordship granted plaintiff an injunction, pending the trial of the action, restraining the defendant from obstructing the plaintiff's gateway, and made an order that the defendant must remove the obstruction within seven days.

CORRESPONDENCE

TRANSMISSION TOWERS.

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—Some part of the surplus in the Post Office Revenue will doubtless be allocated to further transfer of telegraph and telephone wires from overhead to underground; but the more important point that I would commend to the consideration of the architects, and of the preservers of rural England, is that we all want to make rural life as comfortable and as attractive as possible; that, to this end, the woman's share in rural life can be vastly eased and improved if she does not have to spend half her life in cleaning up the dirt uselessly produced from the older methods of heating and lighting.

I look forward to a constantly growing appreciation among women in rural homes of the value of electricity for quickening and facilitating work that has to be done in the home in addition to avoiding the unnecessary work just mentioned. Indeed, were I in a position to influence public expenditure, I would *first* provide distribution of electricity throughout rural Britain, and make available with reasonable promptness in every home an abundant supply of electricity before spending a penny on the high-tension Government "grid," which will doubtless avoid expenditure for some so-called spare machinery in generating plants, while spending that money on the "grid," which does not make electricity available anywhere where it is not already available, but it does interconnect existing and proposed sources of supply.

The cost of distributing electricity in sparsely populated areas by means of underground cables is prohibitive. Even in villages closely built, underground distribution costs three times as much as overhead distribution. Such capital expenditure would put the selling price of electricity (by underground mains) beyond the reach of most of the rural population; while, by overhead, it can be sold economically at a moderate price, within the means of all.

THEODORE STEVENS

"WHAT IS ART?..."

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—I shall be grateful if you will permit me to voice in your columns a protest against Astragal's paragraph in the issue dated August 8, in which reference is made to the paintings of Ben and Winifred Nicholson.

Far from "painting to meet a demand," the group with which these artists are identified has created the demand for the painting which they practise, and an examination of the names of purchasers of their pictures will reveal an appreciation of their merits by persons of acknowledged standing in the world of the arts.

Far from "painting to meet a demand," Ben Nicholson suffered financial loss for several years, when he left a field which was already lucrative for one to which he felt himself more sincerely attached. One cannot help being thankful that his courage is so soon being rewarded.

One was delighted to discover a picture by Winifred Nicholson included in the English section of the International Exhibition of Art at Venice this year, and this in a section which exhibited only works by artists whose names are familiar to all who are interested in painting.

This letter is prompted not only by a desire to correct a misapprehension, but also (so potent is the power of the printed word !) for fear that some of your readers who regard the purchase of works of art by contemporary painters as an investment, may be "put off a good thing." As Astragal is so sure of what constitutes artlessness, he will now, perhaps, solve the age-long riddle: "What is Art?"

HAROLD TOMLINSON

Chandos House. By Arthur T. Bolton. The façade in Duchess Street, Portland Place.

SOCIETIES AND INSTITUTIONS

Northamptonshire Association of Architects

At the annual general meeting, held at Northampton, Mr. H. Norman, F.R.I.B.A., president, in the chair, the draft rules submitted by the Council to suit the enlargement of the province by the inclusion of Bedfordshire and Huntingdonshire were discussed, and after slight amendment adopted. From this date the Association will be known as the Northamptonshire, Bedfordshire, and Huntingdonshire Association of Architects. The officers for the coming session were elected as follows: President: H. Norman, F.R.I.B.A., Northampton. Vice-presidents: R. J. Williams, F.R.I.B.A., Kettering; Major B. C. Deacon, F.R.I.B.A.,

Luton. Council: F. H. Allen, A.R.I.B.A., Northampton; Lt.-Col. J. W. Fisher, F.R.I.B.A., Wellingborough; J. A. Gotch, F.R.I.B.A., Kettering; S. F. Harris, F.R.I.B.A., Northampton; Capt. H. Haines, A.R.I.B.A., Bedford; W. A. Lea, L.R.I.B.A., Huntingdon; J. Murray, F.R.I.B.A., Luton; W. B. Stonebridge, F.R.I.B.A., Bedford; H. F. Traylen, F.R.I.B.A., Stamford. Hon. Sec.: C. Croft, F.S.I., L.R.I.B.A., Northampton. Hon. Auditor: J. A. Piccaver, Northampton. The following donations were decided upon: Five guineas to the R.I.B.A. Maintenance Scholarship Fund; five guineas to the Architects' Benevolent Fund; one guinea to the Council for the Preservation of Rural England.

R.I.B.A. Competition for the Design of a Garage in the Theatre Area of London

The conditions for the R.I.B.A. Competition for the Design of a Garage in the theatre area of London, the prize money for which has been presented by Mr. H. S. Horne, of 74 Park Street, London, W.1, have now been issued and copies may be obtained free by intending competitors on application to the office of the R.I.B.A., 9 Conduit Street, London, W.1.

The competition is open to architects and students of architecture of British nationality.

The first prize is a sum of £350, and in addition £140 will be divided at the discretion of the assessors between competitors whose designs are considered especially meritorious.

High Bonnybridge U.F. Church Competition

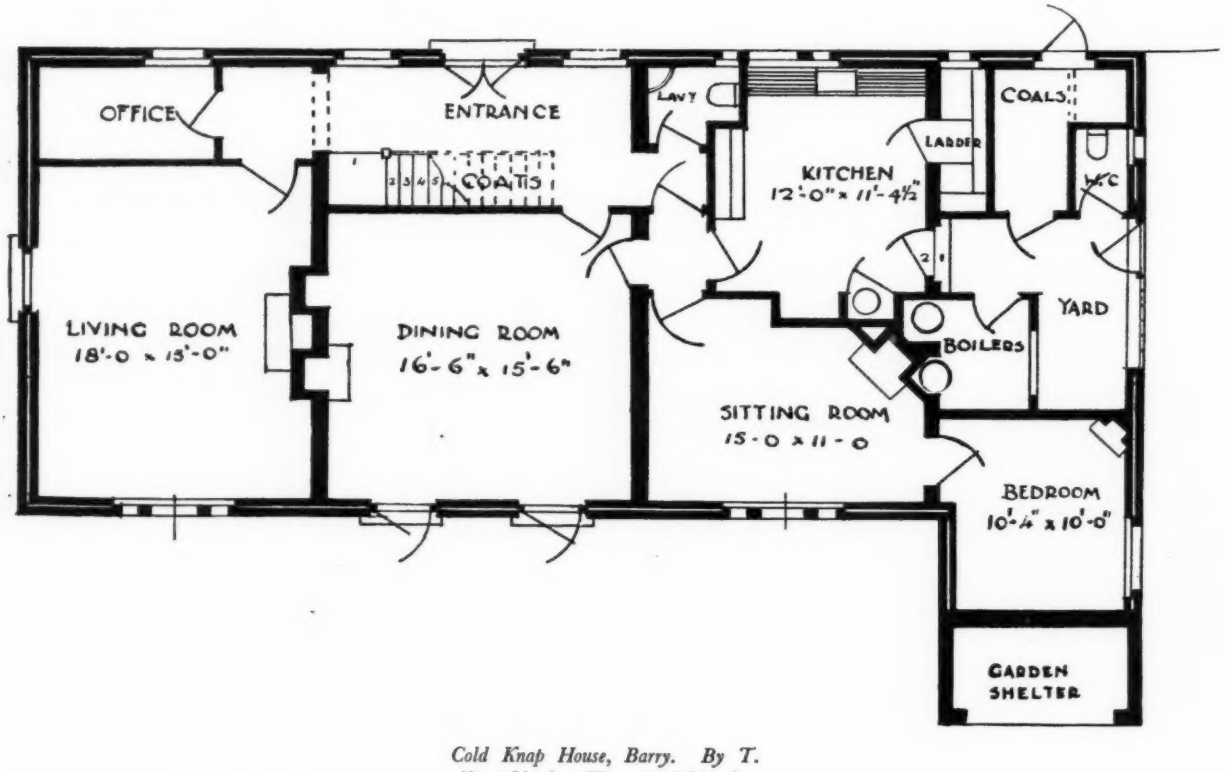
The following notice has been issued by the Royal Institute of British Architects: "The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition."

ANNOUNCEMENTS

At the recent exhibition of antiques held at Olympia was a very fine panelled interior taken from a house in King's Lynn. It is a delightful specimen of eighteenth-century work, typical of many interiors in this fine old town, and, unfortunately, it is to be sent to the U.S.A. A similar fate has befallen an exquisite carved chimneypiece from Stonegate House, once a private school, where Mr. E. Guy Dawber, A.R.A., received his early education. It is very distressing to see a town being slowly stripped of what should be its most treasured possessions, but since there are no means of preventing this, the next best thing is to make a record by photographs and measured drawings, which may also serve the purpose of educating the owners to the value of such things. This task has been begun, and if any readers have measured drawings of houses or details of architectural interest, in or around King's Lynn, it would save a duplication of labour if they would permit them to be reproduced. All communications respecting this matter should be sent to Mr. L. Edmund Walker, 3 Mount Street, King's Lynn, and we understand that in the event of the publication of any such measured drawings a suitable acknowledgment will be made.

The architectural and surveying business in Ceylon hitherto carried on by Messrs. Booty and Edwards' Colombo branch, will in future be continued under the name of Edwards, Reid and Booth. The partners are: S. J. Edwards, M.A. (Cantab.), F.R.I.B.A., F.S.I., H. H. Reid, A.R.I.B.A., R. Gilbert Booth, A.R.I.B.A.

Mr. W. Harold Jones, A.R.I.B.A., of 7 New Square, Lincoln's Inn, W.C.2, will be joining Mr. W. M. Weir, F.R.I.B.A., sole partner of Messrs. Weir, Burrows and Weir, Chartered Architects, of 17 Victoria Street, Westminster, S.W.1, in partnership on September 1, 1928. The name and address of the firm will be the same and Mr. Jones will leave his present address and move to 17 Victoria Street on that date, and his telephone number will be Victoria 0777.



Cold Knap House, Barry. By T. Alwyn Lloyd. The ground-floor plan.

TRADE NOTES

The ever-increasing popularity of coarse texture finishes for interior walls has led Messrs. Thos. Parsons and Sons to devise and place upon the market a new plastic paint, called Parso-Tex, which, when used with Parso-Glaze, a scumbling paint, offers unlimited possibilities in the creation of decorative schemes of that description. By the use of these two materials, plaster or antique period interior effects can also be produced easily and permanently. Parso-Tex is an oil-bound plastic paint which sets hard in about eight hours, and it is then ready for the application of the scrumbling paint. The Parso-Tex is in the form of a heavy paste, and is applied with a broad knife or a stiff brush, the various finishes being obtained by manipulation of the material with stipplers, brushes, wood, or with the hand, according to the effect it is desired to obtain. The material does not run together after treatment, and is claimed to keep its textured surfaces indefinitely. Relief work can be carried out with the material with the aid of ordinary oiled paper stencils, and can afterwards be glazed with Parso-Glaze to produce soft colour tones. Parso-Tex, being of a heavy consistency, can be used as a filler for bad walls and woodwork when smooth finishes are desired. Parso-Glaze produces a washable finish in a large number of colours, and many interesting effects can be introduced, either by wiping the high lights while the surface is wet, or by applying the glaze thicker in some places, or by the use of another colour. When it is desired to change the colour scheme of an interior it is only necessary to apply a coat of Parso-Glaze undercoating and re-glaze.

The paper on "Clean Kitchen Management: the Preservation of Food," read by Mrs. M. A. Cloudesley Brereton, F.R.SAN.I., before the Personal and Domestic Hygiene section of the Royal Sanitary Institute Congress, held at Plymouth during this year, has been reprinted in booklet form. The subject is of such vital importance that no efforts should be spared by every society interested in food, in cooking, in food storage, or cooking appliances to instruct the public in the use of the most modern means of preservation. Sir Arbuthnot Lane remarked recently that every disease, from cancer to influenza, was bred in the kitchen; a statement which would readily provide a terrible but convincing slogan for a food-preservation campaign. Mrs. Cloudesley Brereton, in her paper, gives us a strong reminder that much can be done to prevent contamination by practical marketing and cool storage, and the adoption of home and retail refrigeration. Mrs. Cloudesley Brereton points out that the average larder has many limitations, and describes in general terms the main divisions in which refrigerators can be classed. While making no attempt to advocate the use of refrigerators as a domestic necessity, she believes them to be the perfect alternatives to the unapproachably ideal larder. The booklet is issued by the British Commercial Gas Association, price 1s.

NOTTINGHAM UNIVERSITY

Following are the names of the general contractors and the sub-contractors for New University at Highfields, Nottingham, illustrated on pages 256 to 262. General contractor, Mr. S. Cawley. Sub-contractors: Sir Jesse Boot Property and Investment Co., Ltd., foundations; Val de Travers, damp-courses; Limmer and Trinidad Lake Asphalte Co., Ltd., asphalt; Babbington Colliery Co., Nottingham, facing bricks; Nottingham Patent Brick Co., glazed bricks; Sneyd Collieries, Burslem, bricks; Bath and Portland Stone Firms, Stancliffe Estates Co., stone; Redpath, Brown & Co., structural steel; A. Pyatt & Co., slates; F. McNeil & Co., roofing felt; Pilkington Bros. and Chance Bros., glass; F. J. Ebner, wood-block flooring; J. Jeffreys & Co., central heating and ventilation; W. J. Furse & Co., electric wiring; A. R. Knight, plumbing; Twyfords, Ltd., sanitary fittings; Chas. Smith & Co., door furniture; Ericssons Telephones, Ltd., telephones; Midland Plastering Co., Ltd., plaster and tiling; Battiscombe and Harris, decorative plaster; Albion Stone Firms, stonework; Waterer, Sons and Crisp, shrubs and trees; Kingfisher, Ltd., Wm. Bartlett & Co., Bennet & Co., school fittings; Sankey Sheldon, cloakroom fittings; Waygood Otis, lifts; Butters Bros., cranes; Magneta Time Co., clocks.

Cold Knap House, Barry, looking north-east. By T. Alwyn Lloyd.

THE WEEK'S BUILDING NEWS

The MANCHESTER Education Committee has obtained sanction to borrow £54,337 for the purpose of the erection of the North Manchester High School for Boys.

*

The WOOLWICH B.C. is to borrow £35,000 for housing advances.

*

The L.C.C. is to erect fourteen additional houses on the Wormholt estate, HAMMERSMITH at a cost of £7,800.

*

The LEEDS Corporation has granted permission to the Monk Bridge Iron and Steel Co. Ltd., to construct a bridge over Whitehall Road.

*

Power to borrow £200,000 has been obtained by the SHEFFIELD Corporation for the extension of mains and for other purposes of the waterworks undertaking.

*

The city engineer to the LEEDS Corporation has been authorized to prepare plans for new roads and the erection of 190 houses (of which number approximately one-third are to be flats) on the Hawksworth Wood and Meanwood housing estates in connection with the rehousing of persons who will be displaced by the carrying out of the West Street unhealthy area improvement scheme.

*

The SHEFFIELD Corporation has allocated 42 acres of land at Redmires for hospital purposes.

*

The KENSINGTON B.C. has asked Mr. Knapp-Fisher to prepare a further design for a chapel at a cost of approximately £5,000 for the new cemetery at Gunnersbury.

*

The GUILDFORD Education Committee has voted a total expenditure of £14,000 in connection with the erection of Bellfields Council School.

*

The SMETHWICK Corporation proposes to erect houses by direct labour on the whole of the remaining portion of the Old Chapel estate.

*

The YORK Corporation Housing Committee has adopted plans for the erection of another 136 houses on the Tang Hall estate.

*

Plans passed by the UXBRIDGE U.D.C.: Extension of foreman's office and stores, Wharf, Waterloo Road, for the Uxbridge Electric Supply Company; flat and store, Derby Road, for Mr. R. A. D. Gough; house, Fairfield Road, for Major Wilson; house, Fairfield Road, for Miss Foyer; wo houses, Orchard Waye, Hillingdon Road, for Mr. Alexander.

The STOKE-ON-TRENT Corporation Housing Committee is in negotiation for housing sites at Fenton, Trentham, and Trent Vale.

*

The EASTBOURNE Corporation Electricity Committee is seeking sanction to borrow £11,175 for provision of electricity showrooms and office accommodation.

*

Plans passed by the GLASGOW Corporation: 552 houses, Meikle Aitkenhead, for Messrs. Breeze, Paterson and Chapman; ten bungalows, Carlton Gardens, Cardonald, for Messrs. Hepburn Bros.; alterations, Centre Street South, for Messrs. Alexander Cross and Sons, Ltd.; alterations, Craigton Road, for Galbraith's Stores, Ltd.; building, North Gardner Street, for Messrs. William Fulton and Son.

*

Plans passed by the LEEDS Corporation: Thirty shops, Woodlands estate, off Otley Road, for the trustees of the late Mr. Joseph Pickersgill; shops, offices, and business premises, land belonging to the Corporation at the junction of Scott Hall Road, and extension of Potternewton Lane; two houses, Vesper Walk, Kirkstall, for Messrs. T. and W. Broderick; two houses, Water Lane, Farnley, for Mr. Thomas Thompson; ten houses, Regina Drive, Chapel-Allerton Hall estate, for Sir Rowland Barran; six houses, Barrowby Drive, Austhorpe, for Mr. George Morrit; thirty houses, The Drive, Lidgett Park Grove, Lidgett Place, Roundhay, for Mr. A. T. Laxenby; fifty-two houses, Green Hill Lane, Wortley, for Mr. James Thirtle; twenty houses, Talbot Gardens and Avenue, Roundhay, for Mr. William Clifford Rodgers; four houses, Stanmore Crescent, Headingley, for Mr. Joseph Greenwood; eight houses, Lombard Street, Halton, for Messrs. Dunhill Bros.; eight houses, Wensley Drive, Chapel Allerton, for Mr. Mark Bristow; forty-two houses, Bowood Crescent and Avenue and Stainbeck Road, Meanwood, for Mr. Horace Broadbent; fourteen houses, The Drive, Roundhay, for Mr. A. T. Lazenby; four houses, Wensley Road, for Mr. George Monkman; four houses, Mavis Lane, Cookridge Village estate, for Mrs. Rebecca Seddon; six houses, Gipton Wood Road, Harehills, for Mr. James Ambler.

*

The HAMMERSMITH B.C. is to erect eighty tenements at a cost of £44,000 in connection with the southern improvement scheme.

*

The STEPNEY B.C. is to erect a garage at the depot at a cost of £9,000.

*

The L.C.C. has sold a site in Goresbrook Road, BECONTREE, to the Essex County Council for the erection of an elementary school.

Mr. A. Drew, on behalf of Cornwall Press, Ltd., is to erect a building at 1-10 Paris Gardens, SOUTHWARK.

*

The CHESTERFIELD Office of Works has acquired land in St. Mary's Gate and Spa Lane as a site for a labour exchange.

*

Plans passed by the SHEFFIELD Corporation: Three houses, Dixon Road, for Mr. M. Simpson; six houses, Crawford Road, for Mr. T. Leadbeater; three houses, Richmond Park Road, for Messrs. W. and E. Sadler, Ltd.; four houses, Little Norton Lane, for Messrs. F. B. Skineer and Sons; six houses, High Storrs Road, for Mr. Thomas Pye; four houses, Pingle Avenue, for Mr. J. Bailey; six houses, Glenorchy Road, for Mr. A. J. Belton; four houses, Bingham Park Road, etc., for Messrs. W. Malthouse, Ltd.; four houses, High Storrs Road, for Mr. Riley Watson; three houses, Linden Avenue, for Mr. A. Davidson; one house and bakery additions, Bright Street, for Messrs. W. Price and Sons; 122 houses, Longley estate, for the Sheffield Corporation; six houses and garages, Pingle Avenue, for Messrs. Smith and Hawley, Ltd.; six houses, High Storrs Road, for Mr. Thomas Pye; six houses, Tapton Hill Road, for Mr. L. J. Samuel; six houses, Pingle Avenue, for Messrs. Smith and Hawley, Ltd.; six houses, Falkland, Renshaw and Huntley Roads, for Mr. J. Ramsden; four houses and garages, Dobcroft Road, for Mr. J. W. Ardern; seven houses, shops and stores, Peninstone Road, North, and Leppings Lane, for Messrs. J. H. S. Randall, Ltd.; four houses and garages, Bents Drive, for Mr. S. G. Bailey.

*

At a meeting of the LEEDS Corporation Gas Committee it was reported that sanction had been obtained for a loan of £64,433 for the erection of workshops in New York Road, and the engineer reported as to arrangements for the commencement of the work.

*

At a meeting of the LLANDUDNO U.D.C the surveyor submitted the plan showing the proposed lay-out of the Maesdu Building Estate. He was asked to re-submit the plan with certain additional information.

*

The SMETHWICK Corporation has granted a subsidy in respect of fourteen houses of the parlour type to be erected by Mr. G. Jones in Hugh Road, and eight houses of the parlour type to be erected by Mr. J. Reece in Woodlands Road and Norman Road.

*

The L.C.C. has leased land reserved for industrial development at BECONTREE for the erection of about twenty-five shop premises with living accommodation to Mr. H. G. Odell.

Plans passed by the HASTINGS Corporation: Shops, Old London Road, for Mr. L. Towner, architect; addition, 170 Old London Road, for Mr. L. Towner, architect; addition, House of Compassion, Priory Road, for Mr. J. Hunt, architect; house, Woodland Vale Road, St. Leonards, for Mr. H. M. Jeffery, architect; flats, Grosvenor Crescent, St. Leonards, for Messrs. H. Ward and Son, architects; two houses, The Wishing Oak estate, Harley Shute Road, St. Leonards, for Mr. E. H. Gandy, architect; alteration and addition, Grosvenor Works, Bexhill Road, for Messrs. H. Ward and Son, architects; house, Harley Shute Road, St. Leonards, for Messrs. Callow and Callow, architects.

*

The BISHOPSTHORPE U.D.C. has decided to co-operate with York Corporation in the preparation of a town-planning scheme for a portion of the district.

*

The Hampshire Education Committee has decided to erect a senior mixed school at COWPLAIN at a cost of £15,100, to accommodate 350 children.

*

The NEWCASTLE Corporation reports that it will require about £400,000 for the completion of the 1,371 houses.

*

The SHEFFIELD Education Committee is acquiring part of the Woodhouse Mill Recreation Ground for the erection of an elementary school.

*

The Durham County Education Committee is seeking sanction for a loan of £18,900 for the enlargement of the elementary school at BILLINGHAM.

*

Plans passed by the EASTBOURNE Corporation: Alterations, 14-16 Sussex Gardens, Terminus Road, for Mr. P. J. Bartlett, architect for Boots Pure Drug Co., Ltd.; alterations and additions, Eastbourne School of Domestic Economy, Silverdale Road, for Messrs. Tatchell and Wilson, architects; additions, 22 Victoria Place, for Messrs. North, Robin and Wilsdon, architects; two houses, Milton Road, for Mr. A. Ford, architect; four houses, Milton Road, for Mr. F. C. Benz, architect; four flats, Upwick Road, for Mr. A. Ford, architect; alterations, Hydro Hotel, Mount Road, for the Hydro Hotel Co., Ltd.; church, Hartfield Road, for Elim Foursquare Gospel Alliance; two houses and garages, Brodrick Road, Hampden Park, for Messrs. Wm. J. Cole and Sons; six houses, Northiam Road, for Mr. W. R. Hamblyn, architect; alterations and additions to riding stables, Burlington Place, for Mr. W. R. Hamblyn, architect; eight houses, Combe Road, for Mr. W. R. Hamblyn, architect; fifteen houses and garages, Compton Place Road, Park Close estate, for Mr. R. G. Lovell, architect for Park Close Estate, Ltd.; alterations and additions, 23 and 25 Victoria Place, for Mr. B. Stevens, architect.

Mr. A. E. Bird has prepared plans for the construction of a new street off High Lane, BURSLEM.

*

The SOUTH SHIELDS borough engineer has prepared plans for the erection of flats, in three-story blocks, on the Mitre Street area, but consideration has been postponed pending a visit of the Housing Committee to rehousing schemes in Newcastle and Wallsend.

Chandos House. By Arthur T. Bolton. A wrought-iron gate.

The DOUGLAS (I.O.M.) Corporation has decided to submit to the Government the following development schemes in connection with the relief of unemployment: Widening and improvement of Douglas Bridge and the widening of Peel Road. These are in addition to schemes for widening the promenade and North Quay.

*

The PENZANCE Corporation is to discuss with the West Penwith R.D.C. a proposal for the erection of a joint infectious diseases hospital for the area of the Penzance Union.

*

The Kent Education Committee has acquired a site at GOUDHURST for the erection of a central school.

Plans passed by the PAIGNTON U.D.C.: Six houses, Totnes Road, for Messrs. Knapman Bros.; eight houses, Batson Gardens, and twenty houses, Stansfield Avenue, for Mr. A. Jonas; bungalow, Roundham Head, for Mr. J. E. Pettiford; house, Osney Avenue, for Mr. G. E. Rowe; two houses, Laura Grove, for Mr. D. Peeke; two houses, Stoke Road, for Mr. W. G. Tancock.

*

The BARNSLEY Education Committee has obtained sanction to borrow £14,500 for extensions at the Holgate Grammar School.

*

Plans passed by the SOUTH SHIELDS Corporation: Temporary church, Barnes Road, for South Shields Spiritualist Church; offices for Britannic Assurance Co., Ltd., Stanhope Road, for Messrs. T. A. Page and Son; alterations, 13 Cuthbert Street, for Mr. F. W. Newby; alterations, 6-8 Alma Street, for Mr. R. Piper; twenty-eight houses, Marsden Road, for Messrs. Henderson and Woolgar, on behalf of the Aged Miners' Homes; rebuilding premises of Messrs. H. Binns & Co., Ltd., corner of Russell Street and West Keppel Street, for Messrs. T. A. Page and Son.

*

The TRURO Corporation has asked the city engineer to prepare a scheme for the construction of a fresh-water swimming bath on the banks of the River Kenwyn.

*

The GRAVESEND Corporation Electricity Committee has failed to obtain certain premises for purposes of showrooms and is inquiring as to other property.

*

Messrs. J. Bodle, Ltd., are seeking twenty plots from the EASTBOURNE Corporation in Downs Avenue for the erection of houses for their own employees.

*

The WARRINGTON Corporation has decided to seek power for a scheme for the continuation of Barbauld Street through to Sankey Street.

*

The Great Western Railway Company is now negotiating for the acquisition of the land at Goodrington, PAIGNTON, needed for the railway extension scheme.

*

At Harton Village, SOUTH SHIELDS, Messrs. Davidson and Son and Sherwood, architects, are to develop the Villa estate, where twelve houses are now to be built: and Mr. Geo. R. Smith, architect, is to erect about thirty houses in two new roads.

*

The Isle of Ely and Cambs County Councils have now agreed upon an expenditure of £50,000 upon the new buildings at the mental hospital at FULBOURN.

*

The WARRINGTON Corporation is to erect 124 houses on the Bewsey estate at a cost of £48,500.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 7½	1 2¾
A₁	Abergavenny	S. Wales & M.	1 7	1 2½
B	Abingdon ..	S. Counties	1 5½	1 1½
A	Accrington	N.W. Counties	1 7½	1 2¾
A₃	Addlestone	S. Counties	1 6	1 1½
A	Adlington ..	N.W. Counties	1 7½	1 2¾
A	Airdrie ..	Scotland	*1 7½	1 2¾
C₁	Aldeburgh	E. Counties	1 3	1 1½
A	Altrincham	N.W. Counties	1 7½	1 2¾
B₃	Appleby ..	N.W. Counties	1 4	1 0
A	Ashton-under-Lyne	N.W. Counties	1 7½	1 2¾
A₃	Atherstone	Mid. Counties	1 6	1 1½
B₃	Aylesbury ..	S. Counties	1 4	1 0
B₃	BANBURY ..	S. Counties	1 4	1 0
B₂	Bangor ..	N.W. Counties	1 4½	1 0½
A	BarnardCastle	N.E. Coast	1 7½	1 2¾
A	Barnsley ..	Yorkshire	1 7½	1 2¾
B₁	Barnstaple	S.W. Counties	1 5	1 0¾
A	Barrow ..	N.W. Counties	1 7½	1 2¾
A	Barry ..	S. Wales & M.	1 7½	1 2¾
B₃	Basingstoke	S.W. Counties	1 4	1 0
B	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7½	1 2¾
B	Bedford ..	E. Counties	1 5½	1 1½
A₂	Berwick-on-Tweed	N.E. Coast	1 6½	1 2
A₂	Bewdley ..	Mid. Counties	1 6½	1 2
B₃	Bicester ..	Mid. Counties	1 4	1 0
A	Birkenhead	N.W. Counties	*1 7½	1 2¾
A	Birmingham	Mid. Counties	1 7½	1 2¾
A	Bishop Auckland	N.E. Coast	1 7½	1 2¾
A	Blackburn	N.W. Counties	1 7½	1 2¾
A	Blackpool	N.W. Counties	1 7½	1 2¾
A	Blyth ..	N.E. Coast	1 7½	1 2¾
B₃	Bognor ..	S. Counties	1 4	1 0
A	Bolton ..	N.W. Counties	1 7½	1 2¾
A₂	Boston ..	Mid. Counties	1 6	1 1½
B₁	Bournemouth	S. Counties	1 5	1 0¾
B₂	Bovey Tracey	S.W. Counties	1 4½	1 0½
A	Bradford ..	Yorkshire	1 7½	1 2¾
A₂	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 7½	1 2¾
B₂	Bridgwater	S.W. Counties	1 4½	1 0½
A₁	Bridlington	Yorkshire	1 7	1 2½
A	Brighouse ..	Yorkshire	1 7½	1 2¾
B₁	Brighton ..	S. Counties	1 5	1 0¾
A	Bristol ..	S.W. Counties	1 7½	1 2¾
B₃	Brixham ..	S.W. Counties	1 4	1 0
A₂	Bromsgrove	Mid. Counties	1 6½	1 2
C	Bromyard ..	Mid. Counties	1 3½	11¾
A	Burnley ..	N.W. Counties	1 7½	1 2¾
A	Burslem ..	Mid. Counties	1 7½	1 2¾
A₂	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury ..	N.W. Counties	1 7½	1 2¾
A₁	Buxton ..	N.W. Counties	1 7	1 2½
B	CAMBRIDGE	E. Counties	1 5½	1 1¾
B₃	Canterbury	S. Counties	1 4½	1 0¾
A	Cardiff ..	S. Wales & M.	1 7½	1 2¾
A	Carlisle ..	N.W. Counties	1 7½	1 2¾
B	Carmarthen	S. Wales & M.	1 5½	1 1¾
B₂	Carnarvon	N.W. Counties	1 4½	1 0½
A₁	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7½	1 2¾
B₁	Chatham ..	S. Counties	1 5	1 0¾
B₁	Chelmsford	E. Counties	1 5	1 0¾
A₃	Cheltenham	S.W. Counties	1 6	1 1½
A	Chester ..	N.W. Counties	1 7½	1 2¾
A	Chesterfield	Mid. Counties	*1 7½	1 2¾
B₂	Chichester	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7½	1 2¾
B₂	Cirencester	S. Counties	1 4½	1 0½
A	Clitheroe ..	N.W. Counties	1 7½	1 2¾
A	Clydebank	Scotland	1 7½	1 2¾
A	Coalville ..	Mid. Counties	1 7½	1 2¾
B	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7½	1 2¾
A₃	Colwyn Bay	N.W. Counties	1 6	1 1½
A	Consett ..	N.E. Coast	1 7½	1 2¾
A₃	Conway ..	N.W. Counties	1 6	1 1½
A	Coventry ..	Mid. Counties	1 7½	1 2¾
A₃	Crewe ..	N.W. Counties	1 6	1 1½
A₃	Cumberland	.....	1 6	1 1½
A	DARLINGTON	N.E. Coast	1 7½	1 2¾
A	Darwen ..	N.W. Counties	1 7½	1 2¾
B₂	Deal ..	S. Counties	1 4½	1 0¾
A₃	Denbigh ..	N.W. Counties	1 6	1 1½
A	Derby ..	Mid. Counties	1 7½	1 2¾
A	Dewsbury	Yorkshire	1 7½	1 2¾
B	Didcot ..	S. Counties	1 5½	1 1¾
A	Doncaster	Yorkshire	1 7½	1 2¾
C₁	Dorchester	S.W. Counties	1 3	11¾
A₃	Driffield ..	Yorks	1 6	1 1½
A₃	Droitwich	Mid. Counties	1 6	1 1½
A₁	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7½	1 2¾
A	Durham ..	N.E. Coast	1 7½	1 2¾
B₁	EAST-BOURNE	S. Counties	1 5	1 0¾
A	Ebbw Vale	S. Wales & M.	1 7½	1 2¾
A	Edinburgh	Scotland	1 7½	1 2¾
A	E. Glamorganshire & Monmouthshire	S. Wales & M.	1 7½	1 2¾
B	Exeter ..	S.W. Counties	*1 5½	1 1¾
B₃	Exmouth ..	S.W. Counties	1 4½	1 0¾
B	FELIXSTOWE	E. Counties	1 5½	1 1¾
A₃	Filey ..	Yorks	1 6	1 1½
A	Fleetwood ..	N.W. Counties	1 7½	1 2¾
B₂	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W. Counties	1 7½	1 2¾
B₃	Frome ..	S.W. Counties	1 4	1 0
A	GATESHEAD	N.E. Coast	1 7½	1 2¾
B₁	Gillingham	S. Counties	1 5	1 0¾
A₃	Gloucester	S.W. Counties	1 6	1 1½
A₂	Goole ..	Yorkshire	1 6½	1 2
B	Gosport ..	S. Counties	1 5½	1 1¾
A₃	Grantham	Mid. Counties	1 6	1 1½
A₁	Gravesend	S. Counties	1 7	1 2½
A	Greenock ..	Scotland	*1 7½	1 2¾
A	Grimsby ..	Yorkshire	1 7½	1 2¾
B₁	Guildford ..	S. Counties	1 5	1 0¾
A	HALIFAX ..	Yorkshire	1 7½	1 2¾
A	Hanley ..	Mid. Counties	1 7½	1 2¾
A	Harrogate	Yorkshire	1 7½	1 2¾
A	Hartlepools	N.E. Coast	1 7½	1 2¾
B₂	Harwich ..	E. Counties	1 4½	1 0½
B₂	Hastings ..	S. Counties	1 4½	1 0½
B₁	Hatfield ..	S. Counties	1 5	1 0¾
B	Hereford ..	S. W. Counties	1 5½	1 1¾
B	Hertford ..	E. Counties	1 5½	1 1¾
A₁	Heysham ..	N.W. Counties	1 7	1 2½
A	Howden ..	N.E. Coast	1 7½	1 2¾
A	Huddersfield	Yorkshire	1 7½	1 2¾
A	Hull ..	Yorkshire	1 7½	1 2¾

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

			I	II
			s. d.	s. d.
A	ILKLEY ..	Yorkshire	1 7½	1 2¾
A	Immingham	Mid. Counties	1 7½	1 2¾
B	Ipswich ..	E. Counties	1 5½	1 1¾
C₁	Isle of Wight	S. Counties	1 3	11¾
A	JARROW ..	N.E. Coast	1 7½	1 2¾
A	KEIGHLEY	Yorkshire	1 7½	1 2¾
B₁	Kendal ..	N.W. Counties	1 5	1 0¾
B₁	Keswick ..	N.W. Counties	1 5	1 0¾
A₃	Kettering ..	Mid. Counties	1 6	1 1½
A₂	Kidderminster	Mid. Counties	1 6½	1 2
B₂	King's Lynn	E. Counties	1 4½	1 0½
A	LANCASTER	N.W. Counties	1 7½	1 2¾
A₂	Leamington	Mid. Counties	1 6½	1 2
A	Leeds ..	Yorkshire	1 7½	1 2¾
A	Leek ..	Mid. Counties	1 7½	1 2¾
A	Leicester ..	Mid. Counties	1 7½	1 2¾
A	Leigh ..	N.W. Counties	1 7½	1 2¾
B₃	Lewes ..	S. Counties	1 4	1 0
A₃	Lichfield ..	Mid. Counties	1 6	1 1½
A	Lincoln ..	Mid. Counties	1 7½	1 2¾
A	Liverpool ..	N.W. Counties	*1 10	1 4½
A₃	Llandudno	N.W. Counties	1 6	1 1½
A	Llanelly ..	S. Wales & M.	1 7½	1 2¾
	London (12 miles radius)		1 9	1 4
	Do. (12-15 miles radius)		1 8½	1 3½
A'	Long Eaton	Mid. Counties	1 7½	1 2¾
A	Loughborough	Mid. Counties	1 7½	1 2¾
A₃	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7½	1 2¾
A₁	MACCLESFIELD	N.W. Counties	1 7	1 2½
B	Maidstone	S. Counties	1 5½	1 1¾
A₃	Malvern ..	Mid. Counties	1 6	1 1½
A	Manchester	N.W. Counties	1 7½	1 2¾
A	Mansfield	Mid. Counties	1 7½	1 2¾
B₂	Margate ..	S. Counties	1 4½	1 0½
A₃	Matlock ..	Mid. Counties	1 6	1 1½
A	Merthyr ..	S. Wales & M.	1 7½	1 2¾
A	Middlesbrough	N.E. Coast	1 7½	1 2¾
A₃	Middlewich	N.W. Counties	1 6	1 1½
B₂	Minehead ..	S.W. Counties	1 4½	1 0½
A	Monmouth S. and E. Glamorganshire	S. Wales & M.	1 7½	1 2¾
A₁	Morecambe	N.W. Counties	1 7	1 2½
A₃	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7½	1 2¾
A	Nelson ..	N.W. Counties	1 7½	1 2¾
A	Newcastle ..	N.E. Coast	1 7½	1 2¾
A	Newport ..	S. Wales & M.	1 7½	1 2¾
A	Normanton	Yorkshire	1 7½	1 2¾
A₁	Northampton	Mid. Counties	1 7	1 2½
A	North Staffs.	Mid. Counties	1 7½	1 2¾
A	North Shields	N.E. Coast	1 7½	1 2¾
A₃	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7½	1 2¾
A	Nuneaton ..	Mid. Counties	1 7½	1 2¾
B	OAKHAM ..	Mid. Counties	1 5½	1 1¾
A	Oldham ..	N.W. Counties	1 7½	1 2¾
A₃	Oswestry ..	Mid. Counties	1 6	1 1½
B	Oxford ..	S. Counties	1 6	1 1½
A	PAISLEY ..	Scotland	*1 7½	1 2¾
C	Pembroke	S. Wales & M.	1 3½	11¾
A	Perth ..	Scotland	*1 7½	1 2¾
A₃	Peterborough	Mid. Counties	1 6	1 1½
A	Plymouth	S.W. Counties	*1 7½	1 2¾
A	Pontefract	Yorkshire	1 7½	1 2¾
A	Pontypridd	S. Wales & M.	1 7½	1 2¾
B	Portsmouth	S. Counties	1 5½	1 1¾
A	Preston ..	N.W. Counties	1 7½	1 2¾
A	QUEENSFERRY	N.W. Counties	1 7½	1 2
A₃	READING	S. Counties	1 6	1 1½
B	Reigate ..	S. Counties	1 5½	1 1¾
A₃	Retford ..	Mid. Counties	1 6	1 1½
A	Rhondda Valley	S. Wales & M.	1 7½	1 2¾
A₃	Ripon ..	Yorkshire	1 6	1 1½
A	Rochdale ..	N.W. Counties	1 7½	1 2¾
B	Rochester ..	S. Counties	1 5½	1 1¾
A₁	Ruabon ..	N.W. Counties	1 7	1 2½
A₂	Rugby ..	Mid. Counties	1 6½	1 2
A₃	Rugeley ..	Mid. Counties	1 6	1 1½
A	Runcorn ..	N.W. Counties	1 7½	1 2¾
A₃	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7½	1 2¾
B₃	Salisbury ..	S.W. Counties	1 4	1 0
A₁	Scarborough	Yorkshire	1 7	1 2½
A	Scunthorpe	Mid. Counties	1 7½	1 2¾
A	Sheffield ..	Yorkshire	1 7½	1 2¾
A	Shipley ..	Yorkshire	1 7½	1 2¾
A₃	Shrewsbury	Mid. Counties	1 6	1 1½
A₂	Skipton ..	Yorkshire	1 6½	1 2
A₃	Slough ..	S. Counties	1 6	1 1½
A₃	Solihull ..	Mid. Counties	1 6	1 1½
A₂	South'pton ..	S. Counties	1 6½	1 2
A₃	Southend-on-Sea	E. Counties	1 6	1 1½
A₂	Southport ..	N.W. Counties	1 6½	1 2
A	S. Shields ..	N.E. Coast	1 7½	1 2¾
A	Stafford ..	Mid. Counties	1 7½	1 2¾
A₂	Stockport ..	N.W. Counties	1 6½	1 2
A	Stockton-on-Tees	N.E. Coast	1 7½	1 2¾
A	Stoke-on-Trent	Mid. Counties	1 7½	1 2¾
B	Stroud ..	S.W. Counties	1 5½	1 1¾
A	Sunderland ..	N.E. Coast	1 7½	1 2¾
A	Swadlincote	Mid. Counties	1 7½	1 2¾
A	Swansea ..	S. Wales & M.	1 7½	1 2¾
B	Swindon ..	S.W. Counties	1 5½	1 1¾
A₁	TAMWORTH	N.W. Counties	1 7	1 2½
B₁	Taunton ..	S.W. Counties	1 5	1 0¾
A	Teeside Dist.	N.E. Counties	1 7½	1 2¾
B	Teignmouth	S.W. Coast	1 5½	1 1¾
A	Todmorden	Yorkshire	1 7½	1 2¾
A₂	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3½	11¾
B₁	Tunbridge Wells	S. Counties	1 5	1 0¾
A	Tunstall ..	Mid. Counties	1 7½	1 2¾
A	Tyne District	N.E. Coast	1 7½	1 2¾
A	WAKEFIELD	Yorkshire	1 7½	1 2¾
A₁	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7½	1 2¾
A₂	Warwick ..	Mid. Counties	1 6½	1 2
A	Wellingborough	Mid. Counties	1 6	1 1¾
A	West Bromwich	Mid. Counties	1 7½	1 2¾
B	Weston-s-Mare	S.W. Counties	1 5½	1 1¾
A₂	Whitby ..	Yorkshire	1 6½	1 2
A	Widnes ..	N.W. Counties	1 7½	1 2¾
A	Wigan ..	N.W. Counties	1 7½	1 2¾
B₂	Winchester	S. Counties	1 4½	1 0½
A₃	Windsor ..	S. Counties	1 6	1 1½
A	Wolverhampton	Mid. Counties	1 7½	1 2¾
A₃	Worcester	Mid. Counties	1 6	1 1½
A₃	Worksop ..	Yorkshire	1 6	1 1½
A₁	Wrexham ..	N.W. Counties	1 7	1 2½
B	Wycombe	S. Counties	1 5½	1 1¾
B₁	YARMOUTH	E. Counties	1 5	1 0¾
B₂	Yeovil ..	S.W. Counties	1 4½	1 0½
A	York ..	Yorkshire	1 7½	1 2¾

* In these areas the rates of wages for certain trades (usually Painters and Plasterers) vary slightly from those given.

The rates for each trade in any given area will be sent on request.

PRICES CURRENT

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4d. *per hour*; LABOURER, 1s. 4d. *per hour*; NAVVY, 1s. 4d. *per hour*; TIMBERMAN, 1s. 5½d. *per hour*; SCAFFOLDER, 1s. 5d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0 11 6
Thames ballast, per yd.	0 11 0
Pit gravel, per yd.	0 18 0
Pit sand, per yd.	0 14 6
Washed sand	0 15 0
Screened ballast or gravel, add 10 per cent. per yd.	
Clinker, breeze, etc., prices according to locality.	
Portland cement, per ton	£2 15 0
Lias lime, per ton	2 10 0
Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.	
Transport hire per day:	
Cart and horse £1 3 0	*Trailer* £0 15 0
3-ton motor lorry 3 15 0	*Steam roller* 4 5 0
Steam lorry, 5-ton 4 0 0	*Water cart* 1 5 0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0 1 6
SPREAD and level, including wheeling, per yd.	0 1 6
FILLING into carts and carting away to a shoot or deposit, per yd. cube	0 10 6
TRIMMING earth to slopes, per yd. sup.	0 0 6
HACKING up old grano. or similar paving, per yd. sup.	0 1 3
PLANKING to excavations, per ft. sup.	0 0 5
DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.	
IF left in, add to above prices, per ft. cube	0 2 0
HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	0 2 1
DO. 6 in. thick, per yd. sup.	0 2 10
PUDDLING, per yd. cube	1 10 0
CEMENT CONCRETE, 4-2-1, per yd. cube	2 3 0
DO. 6-2-1, per yd. cube	1 18 0
DO. in upper floors, add 15 per cent.	
DO. in reinforced-concrete work, add 20 per cent.	
DO. in underpinning, add 60 per cent.	
LIAS-LIME CONCRETE, per yd. cube	£1 16 0
BREEZE CONCRETE, per yd. cube	1 7 0
DO. in lintels, etc., per ft. cube	0 1 6
CEMENT concrete 4 2–1 in lintels packed around reinforcement, per ft. cube	0 3 9
FINE concrete benching to bottom of manholes, per ft. cube	0 2 6
FINISHING surface of concrete spade face, per yd. sup.	0 0 9

DRAINER

LABOURER, 1s. 4d. *per hour*; TIMBERMAN, 1s. 5½d. *per hour*; BRICKLAYER, 1s. 9d. *per hour*; PLUMBER, 1s. 9d. *per hour*; WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per ft.	£0 0 10
DO. *6 in., per ft.*	0 1 3
DO. *9 in., per ft.*	0 2 3
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0 5 6
DO. *6 in., per yd.*	0 8 6
Portland cement and sand, see "Excavator" above.	
Leadwool per cwt.	£2 0 0
Gaskin, per lb.	0 0 4½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. 0 4 3
DO. 6 in., per ft. 0 5 0
DO. 9 in., per ft. 0 7 9

CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0 8 0
DO. 6 in., per ft.	0 10 0

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

BRICKLAYER

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

London stocks, per M.	£4 15 0
Flettons, per M.	3 0 0
Midhurst white facing bricks, per M	5 0 0
T.L.B., multi-coloured facings, per M	7 7 9
DO. *red best facings, per M*	7 7 9
DO. *rubbers 9½ in., per M*	12 0 6
Staffordshire blue, per M.	9 10 0
Firebricks, 2½ in., per M.	11 3 0
Glazed salt, white, and ivory stretchers, per M.	24 10 0
DO. *headers, per M.*	24 0 0
Colours, extra, per M.	5 10 0
Seconds, less, per M.	1 0 0
Cement and sand, see "Excavator" above.	
Lime, grey stone, per ton	2 17 0
Mixed lime mortar, per yd.	1 6 0
Damp course, in rolls of 4½ in., per roll	0 2 6
DO. *9 in. per roll*	0 4 9
DO. *14 in. per roll*	0 7 6
DO. *18 in. per roll*	0 9 6

BRICKWORK in stone lime mortar, Flettons or equal, per rod	£33 0 0
DO. in cement do., per rod	36 0 0
DO. in stocks, add 25 per cent. per rod.	
DO. in blues, add 100 per cent. per rod.	
DO. circular on plan, add 12½ per cent. per rod.	
DO. in backing to masonry, add 12½ per cent. per rod.	
DO. in raising on old walls, etc., add 12½ per cent. per rod.	
DO. in underpinning, add 20 per cent. per rod.	
HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup.	£0 1 0
BEDDING plates in cement mortar, per ft. run	0 0 3
BEDDING window or door frames, per ft. run	0 0 3
LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run	0 0 2
CUTTING do. in old walls in cement, per ft. run	0 0 4
CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup.	0 0 7
TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run	0 3 6
DO. 14 ft. by 9 in. do., per ft. run	0 6 0
FLAUNCHING chimney pots, each	0 2 0
CUTTING and pinning ends of timbers, etc., in cement	0 1 0
FACINGS fair, per ft. sup. extra	0 0 3
DO. picked stocks, per ft. sup. extra	0 0 7
DO. red rubbers gauged and set in putty, per ft. sup. extra	0 4 9
DO. in salt white or ivory glazed, per ft. sup. extra	0 5 6
TUCK pointing, per ft. sup. extra	0 0 10
WEATHER pointing, do. do.	0 0 3
TILE creasing with cement fillet each side per ft. run	0 0 6
GRANOLITHIC PAVING, 1 in., per yd. sup.	0 5 0
DO. 1½ in., per yd. sup.	0 6 0
DO. 2 in., per yd. sup.	0 7 0
If coloured with red oxide, per yd. sup.	0 1 0
If finished with carborundum, per yd. sup.	0 0 6
If in small quantities in finishing to steps, etc., per ft. sup.	0 1 4
Jointing new grano, paving to old, per ft. run	0 0 4
Extra for dishing grano, or cement paving around gullies, each	0 1 6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0 0 7
ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup.	0 8 0
DO. vertical, per yd. sup.	0 11 0
SLATE DAMP COURSE, per ft. sup.	0 0 10
ASPHALT ROOFING (MASTIC) in two thicknesses, ½ in., per yd.	0 8 6
DO. SKIRTING, 6 in.	0 0 11
BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup.	0 5 3
DO. DO. 3 in.	0 6 6
BREEZE fixing bricks, extra for each	0 0 3

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

MASON

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

Portland Stone:	
Whitbed, per ft. cube	£0 4 6
Basebed, per ft. cube	0 4 7
Bath stone, per ft. cube	0 3 0
Usual trade extras for large blocks.	
York paving, av. 2½ in., per yd. super	0 6 6
York templates sawn, per ft. cube	0 6 9
Slate shelves, rubbed, 1 in., per ft. sup.	0 2 6
Cement and sand, see "Excavator," etc., above.	

HOISTING and setting stone, per ft. cube £0 2 2
DO. for every 10 ft. above 30 ft. add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0 2 8
DO. circular, per ft. sup.	0 4 0
SUNK FACE, per ft. sup.	0 3 9
DO. circular, per ft. sup.	0 4 10
JOINTS, arch, per ft. sup.	0 2 6
DO. sunk, per ft. sup.	0 2 7
DO. DO. circular, per ft. sup.	0 4 6
CIRCULAR-CIRCULAR work, per ft. sup.	1 2 0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0 1 1
DO. circular, do., per ft. run	0 1 4

HALF SAWING, per ft. sup.	£0 1 0

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0 0 6
RUBBED round nosing to do., per ft. lin.	0 0 6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1 9 0
YORK SILLS, W. & T., ft. cub. fixed	1 13 0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0 1 6
DO. 2½ in. thick, per ft. sup.	0 1 3

SLATER AND TILER

SLATER, 1s. 9d. *per hour*; TILER, 1s. 9d. *per hour*; SCAFFOLDER, 1s. 5d. *per hour*; LABOURER, 1s. 4d. *per hour.*
N.B.—Tiling is often executed as piecework.

Slates, 1st quality, per 1,200:	
Portmadoc Ladies	£14 0 0
Countess	27 0 0
Duchess	32 0 0

Old Delabole	*Med. Grey*	*Med. Green*
24 in. × 12 in.	£42 11 3	£45 1 0
20 in. × 10 in.	31 4 3	33 0 6
16 in. × 10 in.	20 18 0	22 4 9
14 in. × 8 in.	12 1 0	12 16 3

Green Randoms, per ton	8 3 9
Grey-green do., per ton	7 3 9
Green peggies, 12 in. to 8 in. long, per ton	6 3 9
In 4-ton truck loads, delivered Nine Elms station.	
Clips, lead, per lb.	£0 0 6
Clips, copper, per lb.	0 2 0
Nails, compo, per cwt.	1 6 0
Nails, copper, per lb.	0 1 10
Cement and sand, see "Excavator," etc., above.	
Hand-made tiles, per M.	£5 18 0
Machine-made tiles, per M.	5 8 0
Westmorland slates, large, per ton	9 0 0
DO. *Peggies, per ton*	7 5 0

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

Ladies, per square	£4 0 0
Countess, per square	4 5 0
Duchess, per square	4 10 0
WESTMORLAND, in diminishing courses, per square	6 5 0
CORNISH DO., per square	6 3 0
Add, if vertical, per square approx.	0 13 0
Add, if with copper nails, per square approx.	0 2 6
Double course at eaves, per ft. approx.	0 1 0

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

	Med. Grey	*Med. Green*
24 in. × 12 in.	£5 0 0	£5 2 0
20 in. × 10 in.	5 5 0	5 10 9
16 in. × 10 in.	4 15 0	5 1 0
14 in. × 8 in.	4 10 0	4 15 0
Green randoms		6 7 0
Grey-green do.		5 9 0
Green peggies, 12 in. to 8 in. long		4 17 0

TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	5 6 0
DO., machine-made do., per square	4 17 0
Vertical Tiling, including pointing, add 18s. 0d. per square.	
FIXING lead soakers, per dozen	£0 0 10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0 10 0
LABOUR only in laying slates, but including nails, per square	1 0 0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

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

Timber, average prices at Docks, London Standard Scandinavian, etc. (equal to 2nds):	
7×3, per std.	£21 0 0
11×4, per std.	33 0 0
Memel or Equal. Slightly less than foregoing.	
Flooring, P.E., 1 in., per sq.	£1 2 6
DO. *T. and G., 1 in., per sq.*	1 2 6
Planed boards, 1 in. × 11 in., per std.	30 0 0
Wainscot oak, per ft. sup. of 1 in.	0 1 4
Mahogany, Honduras, per ft. sup. of 1 in.	0 1 3
DO. *Cuba, per ft. sup. of 1 in.*	0 2 3
DO., *African, per ft. sup.*	0 1 0
Teak, per ft. sup. of 1 in.	0 1 3
DO., *ft. cube*	0 12 6

FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0 5 6
DO. framed in floors, roofs, etc., per ft. cube	0 6 6
DO. framed in trusses, etc., including ironwork, per ft. cube	0 7 6
PITCH PINE, add 33⅓ per cent.	
FIXING only boarding in floors, roofs, etc., per sq.	0 13 6
SARKING FELT laid, 1-ply, per yd.	0 1 6
DO. 3-ply per yd.	0 1 9
CENTERING for concrete, etc., including horsing and striking, per sq.	2 10 0
TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run	0 0 4½
DO. 9 in. wide and over per ft. sup.	0 1 2

continued overleaf

CARPENTER AND JOINER: *continued.*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-edged springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ⅞ in. thick and fillets nailed sides to of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1½ in. thick, including grounds and backings, per ft. sup.	0	1	0
TONGUED and mitred angles to do.	0	0	6
WOOD block flooring standard blocks laid herringbone in mastic :			
Deal 1 in. thick, per yd. sup.	0	10	0
DO. 1½ in. thick, per yd. sup.	0	12	0
Maple 1½ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1½ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1½ in. thick, per ft. sup.	0	2	6
DO. moulded both sides per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labours, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1½ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	6
If ramped, per ft. run	0	5	0
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1½ in. square deal bar balusters, framed in, per ft. run	0	0	6
FITTINGS :			
SHELVES and bearers, 1 in., cross-tongued, per ft. sup.	0	1	6
1½ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1½ in. thick and bedding, per ft. sup.	0	4	6
IRONMONGERY :			
Fixing only (including providing screws) :			
TO DEAL—			
Hinges to sashes, per pair	0	1	2
Do. to doors, per pair	0	1	7
Barrel bolts, 9 in., iron, each	0	1	0
Sash fasteners, each	0	1	0
Rim locks, each	0	1	9
Mortice locks, each	0	4	0

SMITH

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

*

Mild Steel in British standard sections, per ton	£12	10	0
Sheet Steel :			
Flat sheets, black, per ton	17	0	0
DO., *galvd., per ton*	19	0	0
Corrugated sheets, galvd., per ton	18	10	0
Driving screws, galvd., per grs.	0	1	10
Washers, galvd., per grs.	0	1	1
Bolts and nuts per cwt. and up	1	18	0

*

MILD STEEL in trusses, etc., erected, per ton	25	10	0
DO., in small sections as reinforcement, per ton	16	10	0
DO., in compounds, per ton	17	0	0
DO., in bar or rod reinforcement, per ton	20	0	0
WROT-IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	5	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	0

PLUMBER

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

*

Lead, milled sheet, per cwt.	£1	9	0
DO. *drawn pipes, per cwt.*	1	10	0
DO. *soil pipe, per cwt.*	1	12	0
DO. *scrap, per cwt.*	1	0	0
Copper, sheet, per lb.	0	1	3
Solder, plumber's, per lb.	0	1	3
DO. *fine, per lb.*	0	1	9
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in., per yd.	0	4	0
DO. *4 in. per yd.*	0	4	9½
R.W.P., 2½ in., per yd.	0	2	2
DO. *3 in., per yd.*	0	2	7
DO. *4 in., per yd.*	0	3	6½
Gutter, 4 in. H.R., per yd.	0	1	6½
DO. *4 in. O.G., per yd.*	0	1	10½

*

MILLED LEAD and labour in gutters, flashings, etc. per cwt.	3	0	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	0
DO. ⅝ in., per ft.	0	2	3
DO. 1 in., per ft.	0	3	0
DO. 1½ in., per ft.	0	4	0
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	0
DO. 3 in., per ft.	0	7	0
DO. 4 in., per ft.	0	9	9
WIPED soldered joint, ½ in., each	0	2	6
DO. ⅝ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ⅝ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run	0	1	7
DO. 3 in., per ft. run	0	2	0
DO. 4 in., per ft. run	0	2	10
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	2	0
DO. O.G., 4 in., per ft.	0	2	3
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	4	6
DO. 3 in., per ft.	0	3	6
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

PLASTERER, 1*s.* 9½*d. per hour (plus allowances in London only)* ; LABOURER, 1*s.* 4*d. per hour.*

*

Chalk lime, per ton	£2	17	0
Hair, per cwt.	2	0	0
Sand and cement see "Excavator," etc., above.			
Lime putty, per cwt.	£0	2	9
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	5
Keene's cement, per ton	5	15	0
Sirapite, per ton	3	10	0
DO. *fine, per ton*	3	18	0
Plaster, per ton	3	0	0
DO. *per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Thistle plaster, per ton	3	9	0
Lath nails, per lb.	0	0	4

*

LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	3
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock. ½ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	7
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	9
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster. per inch girth, including dubbing out, etc., per ft. lin.	0	0	3
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

GLAZIER, 1*s.* 8*d. per hour.*

*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	4½
DO. 26 oz.	0	0	5
Cathedral white, per ft.	0	0	7½
Polished plate, British ¼ in., up to 2 ft. sup. per ft.	0	1	2
DO. *4 ft. sup.* „	0	2	3
DO. *6 ft. sup.* „	0	2	6
DO. *20 ft. sup.* „	0	3	1
DO. *45 ft. sup.* „	0	3	3
DO. *65 ft. sup.* „	0	3	5
DO. *100 ft. sup.* „	0	3	10
Rough plate, ¼ in., per ft.	0	0	6½
DO. *½ in. per ft.*	0	0	6½
Linseed oil putty, per cwt.	0	15	0

*

GLAZING in putty, clear sheet, 21 oz.	0	0	11
DO. 26 oz.	0	1	0
GLAZING in beads, 21 oz., per ft.	£0	1	1
DO. 26 oz., per ft.	0	1	4

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span, 1*s.* 6*d.* to 2*s.* per ft.

LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. sup. and up	£0	3	0

Glazing only, polished plate 6½*d.* to 8*d.* per ft. according to size.

PAINTER AND PAPERHANGER

PAINTER, 1*s.* 8*d. per hour* ; LABOURER, 1*s.* 4*d. per hour* ; FRENCH POLISHER, 1*s.* 9*d. per hour* ; PAPERHANGER, 1*s.* 8*d. per hour.*

*

Genuine white lead, per cwt.	£2	7	6
Linseed oil, raw, per gall.	0	3	6
DO., *boiled, per gall.*	0	3	8
Turpentine, per gall.	0	4	0
Liquid driers, per gall.	0	8	6
Knotting, per gall.	0	15	0
Distemper, washable, in ordinary colours, per cwt., and up	2	5	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	12	6
DO., *flat, per gall.*	1	2	0
DO., *paper, per gall.*	0	16	0
French polish, per gall.	0	17	6
Ready mixed paints, per gall. and up	0	15	0

*

LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	10
DO., subsequent coats, per yd. sup.	0	0	9
DO., enamel coat, per yd. sup.	0	1	2½
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	2
WAX POLISHING, per ft. sup.	0	0	6
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	0	2	4
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	3	0
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SUNDRIES

Fibre or wood pulp boardings, according to quality and quantity.
The measured work price is on the same basis . . . per ft. sup. £0 0 2½

FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds per ft. sup. from 3d. to	0	0	6
Plaster board, per yd. sup. from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. from	0	2	8
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ½ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ¼ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casement in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7

Waterproofing compounds for cement.
Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

Thickness	3/16 in.			¼ in.			⅜ in.			½ in.		
Qualities ..	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.	AA.	A.	B.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboon Mahogany	4	3	3	6½	5½	4	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	5	4	—	5½	5	—	6	—	—	—	—	—