



Wednesday, November 21, 1928

MUNICIPAL FRIGHTFULNESS

“ONE cannot fairly expect an engineer or surveyor to be also a competent architect,” wrote a well-known architect recently, yet in many areas we see that the municipalities expect their engineer or surveyor to act as their architect and general arbiter of taste. Here, evidently, is a distinct cleavage of opinion, and one, moreover, which affects us all alike as ratepayers.

The public services of the municipality necessitate—1: town halls; 2: housing; 3: roads; 4: lighting; 5: bridges; 6: public baths and lavatories; and 7: libraries. Of these, 1, 2, and 7 one would expect to be designed by an architect, while 5 and 6 would undoubtedly be the better for being designed in consultation with an architect. Only 3 and 4, indeed, are properly the exclusive concern of the engineer and surveyor.

Even in the cause of staff economy it hardly seems fair to expect the engineer and surveyor to qualify also as an architect before taking a responsible post under a municipality—the length of training would be prohibitive to the ordinary man. In larger towns the problem does not often apply, for the architect is usually a member of the municipal staff, but in smaller towns and particularly in suburban boroughs the staff architect is embodied in the borough engineer and surveyor, and it must be admitted that as a rule results prove that the engineer who is unqualified as an architect, but who practises as one under the municipality, is unable to justify his position by his works.

In many districts the houses created by the municipality are creditable in planning, but there is still much poor elevation design which finds its way into bricks and mortar through the channel of municipal housing; there are some choice examples round Marlborough.

Street lamps and park railings are so frequent that we hardly notice them in our perambulations; but if we do, we shall see that they are typical of the Great Exhibition standard of the ironwork manufacturers' stock. Where a special case would seem to require special treatment—i.e. a lamp affixed bracket-wise to the street wall of a house—the same clunisy lantern (which would surely be more suitable as a super-strong taxidermist's specimen case) appears balanced on a bent gas pipe, which is the coarse municipal substitute for what might well be a graceful lamp-bracket—indeed, on looking generally at municipal lamp-posts and railings one wonders that the very mongrels do not pass them by in contempt.

For this bad taste the citizen blames the borough engineer and surveyor, who, in his turn, blames the manufacturer that has such a poor selection to choose from and who (quite apart from the fact that he does not employ even

passable designers) does not care to run the risk of mass-producing better designed work at a low price. Indeed, it is only fair to ask—if the manufacturer did produce a better class of goods—whether the borough surveyor would have the taste to choose them for his public works—and to judge from his usual “classy” standard one would think not, though perhaps wrongly.

We must remember, however, that the borough or district engineer is the servant of the borough or district council. If they, as the elected representatives of the ratepayers, raise no objection to the crimes of the engineer, who can? In Cambridge, recently, the impotence of outside protest (however influential) has been amply proved, and it is patent that interference can only come from the councillors themselves. They, then, are mainly responsible for the borough engineer's works, good and bad.

When we see the average municipal body in all its parts assembled, it is no longer possible to contemplate seriously the completion of their education in matters æsthetic; interference from Whitehall in specific cases is bound to lead to unpleasantness and delay, while, as it seems unlikely that questions of amenity will immediately become a live political issue, it is not feasible to rely on the ratepayers to elect only amenity-minded councillors every November. What can be done? Cannot a grouping of municipal bodies be made—those above a certain size having to have a recognized architect on their staff (as some do), while those below that size have to submit any works costing more than a certain sum to a district advisory committee, set up according to the suggestions of the C.P.R.E.?

The future seems to hold the not unreasonable hope that agitation and education will gradually produce councillors with better taste. Good taste, like charity, begins at home, if it is to exist at all, and much could be learnt about the source of modern municipal frightfulness in a house-to-house visit of the councillors. It is not only not fair that we should expect engineers and surveyors to be competent architects—it is dangerous, and much damage is now being done. During the next few years some form of outside control will be necessary, for at present the councillors know not what they allow their engineer to do. However, there are signs of betterment to come. For it is patent that the great interest now taken in such places as Ken Wood, Hampton Court, and Holyrood Palace—all good specimens of domestic arrangement—coupled with Press agitation, is gradually resulting in a higher general standard of personal taste. Given this betterment (from which councillors will have no means of escape) the problem of municipal frightfulness is well on the way to solution.

NEWS AND TOPICS

SIR ARTHUR EVANS, lecturing on "The Palace of Knossos in the Light of Recent Reconstitutions," at the R.I.B.A. on Monday, can hardly be said to have made the dry bones of archæology live. The following passage, for instance, had its importance—but what chords did it strike in our hearts or minds?

"A branch line of the causeway, that starting from this area, served the stepped entrance at the north-west Palace angle led south across the west court to the well-preserved remains of the west porch. On this side, again, recent researches have thrown quite a revolutionary light on the early history of the building. A row of base slabs visible in the pavement of the court some three metres out from the later façade clearly marked a time when the original line of frontage here ran somewhat west of its later course. These early base blocks, moreover, curved in on their southern extremity, and it was found that at this point a line of causeway running due east could actually be traced beneath the later wall. It became evident, therefore, that the earlier entrance on the west side instead of finding its way south, as it does from the later west porch, and then turning left by a detour to the south propylæum, had entered the Palace in an eastward direction. The entrance piers of a row of magazines, marked by the cross paté sign in the interior of the building running from west to east, belong apparently to this earlier system. We have thus at Knossos a nearer anticipation of the *decumanus maior* of Roman castra than had at first been recognizable."

And yet there is the romance of a whole civilization at Knossos.

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It was only the adoption in recent years of the wholesale use of ferro-concrete, said Sir Arthur, that had made it possible to continue the work of conservation on a larger scale and in a more durable manner, and to rescue much that had been already done from the imminent danger caused by the rotting of the wooden supports. It had been thus possible to undertake a much more considerable work of reconstitution. The iron girders brought to Candia by sea—some of them now lying at the bottom of the harbour—were both cumbrous and costly, and wood-work was found rapidly to rot owing to the violent alternations of the Cretan climate.

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The Architectural Association, being now safely installed in its enlarged and greatly-improved premises, has had time to turn round and consider how to develop their use. The series of public lectures which has been arranged sounded, from the beginning, like a very fine idea; but the first lecture, which Mr. W. H. Ansell (the president) delivered on Saturday afternoon, made it abundantly clear that all estimates of the value of the scheme had been badly underrated. The general public is undoubtedly interested in architecture, and its interest is steadily growing; that is common knowledge. But the public, regarded as a whole, is not composed of experimentalists, and takes little on trust; the first of a series of lectures might well have been merely a tentative success, and yet by noon on Friday the

applications for admission had far exceeded the accommodation available, and when the lecture began the hall was full to overflowing. Mr. Ansell himself proved to be entirely up to the occasion and spoke with a directness, frankness, and freedom from over-technical terms which future speakers will do well to notice, and which combined to form a still better advertisement for the remaining lectures. "The Appreciation of Architecture" is a title not without its lure, and yet, perhaps, a trifle unnerving to the layman when an architect is to speak about it; the rest of the lectures have less terrifying titles, and I visualize the taking over by the A.A., before long, of the Albert Hall—echo and all!

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Very few business buildings in London have aroused so much attention as Carreras's new tobacco factory at Camden Town. All the architects in London have decried it, and all the ordinary people have done nothing but praise it. Of course anything that is nice and new will be liked by the people, but wouldn't we all sell our souls for something that would remain always new? Eternal beauty, eternal morning, eternal youth—the artists and the physicians spend their lives in striving for it, and here it has been given to us in ground Venetian glass. Behind this attainment there is a great story. The architects, and Mr. Frederic Coleman, and the Art Pavements and Decorations could tell it, and all three should be invited to do so at a meeting of the A.A. or the R.I.B.A.

ARRANGEMENTS

WEDNESDAY, NOVEMBER 21

Royal Society of Arts, Adelphi, W.C.2. Ordinary Meeting at 8 p.m. Address on "Safety in Factories." By Sir Gerald Bellhouse, C.B.E., H.M. Chief Inspector of Factories. "Forestry in Sweden: Its Importance and Influence in Great Britain." Lecture by Prof. E. P. Stebbing, M.A.

Royal Academy of Arts. Lecture by A. P. Laurie, D.Sc., on "Recent Researches on the Preservation of Ancient Buildings and Stone Decay." 4 p.m.

THURSDAY, NOVEMBER 22

The Institution of Structural Engineers, 10 Upper Belgrave Street, S.W.1. Paper by D. B. Butler, A.M.I.N.S.T.C.E., on "Recent Improvements in the Strength and Constructive Value of Portland Cement." 6.30 p.m. Paper by Gilbert Ness on "Strength of Concrete." 6.45 p.m.

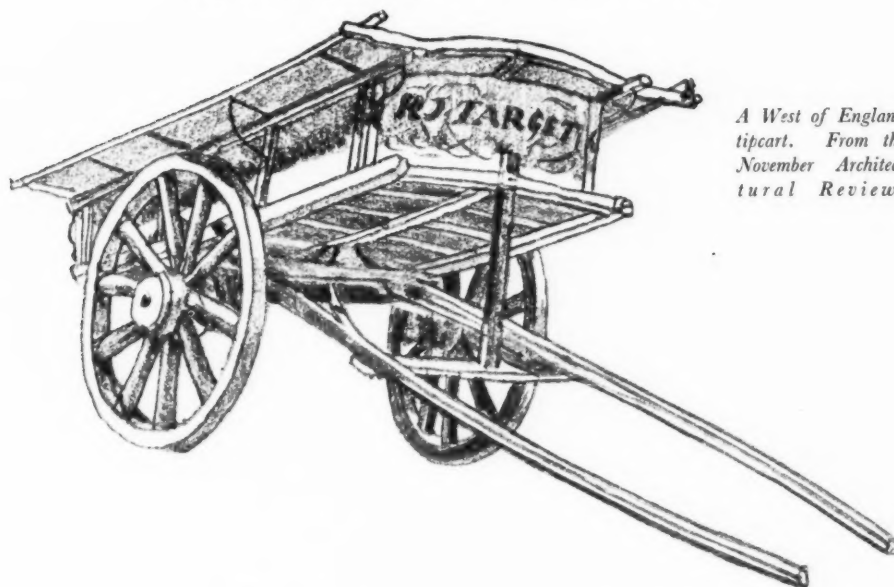
Victoria and Albert Museum, Kensington, W.8. Italian Sculpture of the Renaissance: Lecture IV. "The Sculptors of the Fifteenth Century" (1). By Mr. Eric Laclagan, C.B.E. 5.30 p.m.

SATURDAY, NOVEMBER 24

The Institution of Civil Engineers. Students' Visit to the Reconstruction Works at Waterloo Bridge.

MONDAY, NOVEMBER 26

The Architectural Association, 34 Bedford Square, W.C.1. Paper by F. Winton Newman, F.R.I.B.A., on "The A.A. Excursion, 1928, to Venice and Verona."



*A West of England
tipcart. From the
November Architectural
Review.*

In a mood that is almost lyrical Mr. P. M. Stratton writes of "The Wood Age" in the current *Architectural Review*. And, indeed, wood is a fine thing, and if I had to choose one thing out of everything I should choose wood. For one might makeshift with wood for a lifetime—for boots, for boats, for boxes, for houses, coffins, fires. Is there anything for which it cannot be made to serve, or anything else that will do the same? "The great Wood Age is a lost civilization," says Mr. Stratton. Not at all. When all the ore in the earth is smelted, wood will again come into its own.

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At his show at Colnaghi's Galleries, Sir Charles Holmes has justified a number of things: himself, his art, the beauty of ugliness, and his friend, Mr. T. B. Lewis, the chairman of the Trustees of Samlesbury Hall, halfway between Preston and Blackburn. The Great Hall dates from 1350; the greater part from the fifteenth century, with some building of the sixteenth; it is being preserved and made a monument of the twentieth by the inclusion of nearly forty paintings of industrial Lancashire by an artist who was born at Preston. I imagine that no more fertile scheme of art has ever been involved with the futilities, as they now appear, of nineteenth-century manufacturing activities. These pictures are pictures of chimneys, once regarded as the horrific defacers of the English landscape. They are so no longer; they are the chief notes of beauty in the industrial landscape of England—such of them as remain, for they are now scheduled as dangerous structures, now that the new danger of the live wire has destroyed their utility. Their last fine use is as a motive in art, and Sir Charles Holmes has not only vindicated, but ennobled, them. He has revealed a new form of beauty as rich as that of any Italian campanile, and in doing so has demonstrated the value of modern experiments in painting. Yet the artist has stuck to tradition, for he draws in watercolour moor and mountain, as seen in this exhibition, with all the reverence the old English masters displayed towards Nature. He has created a new Nature and a new beauty.

ASTRAGAL

RURAL ENGLAND

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—In your excellent "Rural England" number you state that it is nearly "two years since the inaugural meeting of the Council for the Preservation of Rural England was held," and that "it takes about two years for news of this unsensational sort to leak out among the general public."

As a member of the general public, I am deeply interested in retaining the beauties of the English countryside, and for some time have been a member of other societies whose objects are to preserve and keep in existence beautiful buildings, etc., that might otherwise have been destroyed or disfigured.

Having, therefore, a definite interest in this direction, may I suggest that the C.P.R.E. has not done its utmost to obtain new members and subscriptions?

My wife and I attended the inaugural meeting at the home of the R.I.B.A. with the idea of offering support to the C.P.R.E. and, after having heard Lord Crawford and others speak, I was amazed to find that no attempt was to be made to ask the people at that meeting to become members of the newly-formed association. We were almost the last to leave the meeting and, when passing out of the room, were requested to sign a paper which already contained numerous signatures. Imagine my surprise in discovering that the request was for a petition to the Archbishop of Canterbury with reference to a matter entirely separate from the afternoon's meeting!

I frequently receive by post appeals to subscribe to funds for preserving this open space or for restoring that church, but never a word from the C.P.R.E., and so far I have not become a member of that body.

I should like to point out that the "Save the Countryside" exhibition in Bedford Square and the "Rural England" number of your journal (which I trust will become an annual feature while the need exists) have done more to convince me of the need for supporting this cause than the efforts of any officially appointed society.

Yours, etc.,

D. G. D.

E

Twynholm, Langley Park.

THE RICKMANSWORTH SCHOOL COMPETITION.

[BY OUR OWN CRITIC]

THE designs for the new school at Rickmansworth Park, Rickmansworth, were, according to the conditions, sent in by September 5, 1928. There were five finalists: 1: Messrs. Denman and Son; 2: Messrs. Bradshaw, Gass and Hope, F.F.R.I.B.A.; 3: Mr. Graham Dawbarn, A.R.I.B.A., and Mr. Edward Armstrong, A.R.I.B.A.; 4: Mr. Charles W. Baker, A.R.I.B.A., and Mr. G. J. Morris Viner; and 5: Mr. Percy Turner, A.R.I.B.A.; while Mr. James B. Dunn, A.R.S.A., F.R.I.B.A., Messrs. Nicol and Nicol, F.F.R.I.B.A., and Messrs. William and T. R. Milburn, F.F.R.I.B.A., were honourably mentioned. The five finalists will receive premiums ranging from £750 to £200, according to the places judged to them by Mr. Henry V. Ashley, F.R.I.B.A., who was appointed assessor by the committee of the Royal Masonic Institution for Girls. If within twelve months of the award the committee decide not to proceed with the work, the author of the selected design will be paid for his services in connection with the preparation of the competition drawings a sum which, together with the premium, shall amount to 1½ per cent. on £50,000, and ½ per cent. on any sum in excess of this amount based on the author's estimate of cost.

The accommodation necessary for this girls' school comes under several headings, which may be enumerated as: 1: school "houses"; 2: school buildings; 3: administration; 4: dining hall and kitchens; 5: infirmary; 6: gymnasium and swimming-bath; 7: boiler-house, workshops, and laundry; and 8: entrance lodge, garage, and pavilion.

The competitors were recommended at the outset to visit the site at Rickmansworth, and to take particular note of the many fine trees there which the Masonic Institution desired to preserve as far as possible. In their instructions the committee suggested that the main group of buildings might advantageously be placed on the upper portion of the site—on the high ground sloping gently to the south, and they laid stress on the importance of the disposition of the school houses in relation to the school and other buildings, where all the girls would congregate; and pointed out the desirability of connecting the school houses by a covered approach with the assembly hall, chapel, dining-rooms and classrooms. The committee emphasized that the covered ways would need careful designing, and rather than be mere passages, they should have more the character of cloisters.

Probably the chief merit in the design of the winners, Messrs. Denman and Son, which turned the scale in their favour was the plan that they evolved, for none other of those submitted was as free from possible flaws. Based on two main axial lines: 1: the direct approach from east to west, from Chorleywood Road entrance to the administration building; and 2: the line from north to south, with school buildings, houses, and pavilion planned symmetrically upon it, it strikes one immediately as well balanced, and remarkably well thought out in detail.

The condition which largely governed the disposition of

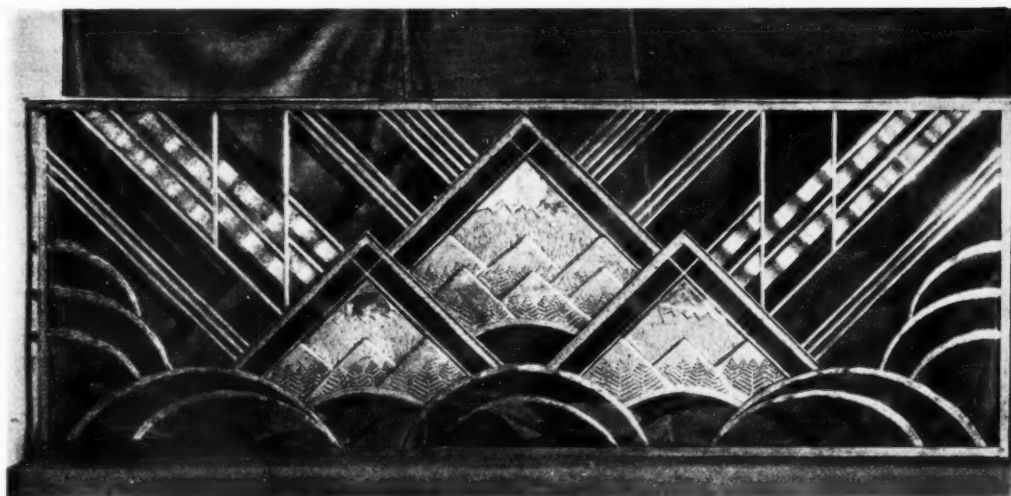
the school houses and, indeed, of all the buildings, was the insistence on a covered way to serve as a link between them. It will be seen that Messrs. Denman and Son have made the covered way a modern interpretation of a cloister (which is what the committee wanted), and from it every building of importance to the school (except the infirmary) opens out, which is not the case in some of the plans of other competitors. The school houses are ranged against the covered way, which runs on their inner side, projected southwards from the classroom block in the form of part of many-sided polygon. The houses face outwards, mostly towards the south, looking on to the playing-fields. The classroom block is part of the main school buildings, which comprise on the west the music-rooms, well built out from the main block towards the Chorleywood Road (for music-rooms often need as much isolation as hospitals for contagious diseases—a fact which few competitors remembered); on the east the swimming-bath and gymnasium; and on the north front a group of three buildings, the chapel, the clock-tower (with the assembly hall behind it), and the dining hall (which, however, would seem to be partially absorbed in effect by the kitchen and administration block). The administration block is centred on the entrance in the Chorleywood Road, and thus provides a fine façade at a comely distance, to be seen by those entering at the gate—a source of pleasure which is denied us in the other designs. The infirmary is, as the committee recommended, isolated to the north of all the buildings.

The most pleasing elevation is that of the administration block, which faces one on entering the grounds. In its centre is a dignified stone entrance, and the whole, built of sand-faced bricks of mixed colours relieved with red arches and dressings, has the air of a refined business building erected by a magnate with unusually good taste—which, as it houses the business side of the school, is quite as it should be. The north elevation of the dining hall and that of the chapel balance one another and are similar, and this group culminates in the clock-tower, which in itself seems a trifle municipal for a school, but as it occupies a monumental position and certainly fills its position admirably as an emphatic assertor of the unity of the group, chapel assembly hall - dining hall, one must be reconciled to it.

Several elevations, notably those of the school houses and the gymnasium and swimming-bath block, in Messrs. Bradshaw, Gass and Hope's design, are as good, if not better than those in the winning design. Their school houses seem to have a more happy and elegant domestic flavour than any other in the room, and the pleasant gymnasium and swimming-bath is reminiscent in its spacing and roof treatment of the new buildings at Clare College, Cambridge.

In conclusion, one may say that on the whole there is a marked similarity between the plans of the different competitors, mainly brought about by the necessity for a covered way connecting all the important buildings. The designs submitted by the winners, while their elevations may seem unusually monumental for a girls' school (and we must remember that the committee asked for something impressive), undoubtedly show in plan an ingenious and economical solution of the problem.

[The layout plan and the design for the school buildings submitted by Messrs. Denman and Son, the winners of the competition, are illustrated this week in our competition supplement. Next week we hope to reproduce some of the other designs, together with further notes by our critic.]



A balcony for a cinema. By J. P. Mongeaud.

MODERN FRENCH WROUGHT-IRONWORK

[BY P. MORTON SHAND]

THE "Maîtres-Feronniers" of contemporary France—men like Subes, Schenck, Szabo, Szetlak, Piguet, Desvaillières, Bergue, Delion and Patois—are all agreed that a definite, and even notable, revival of their art has now begun.

Wrought iron, or "fer forgé," is as essentially personal and sentient a medium as cast iron, or "fonte," is impersonal and inanimate. Cast iron, being unworked, has no real grain or sharpness of edge; no texture and sensibility as it were. Even the bending of a horseshoe in a humble village smithy needs something of a craftsman's skill.

Jean Lamour, King Stanislas's master-smith, who forged the glorious gates of Nancy in the middle of the eighteenth century, gave his apprentices the following definition: "Wrought iron is full of majesty, delicate fancy, and pleasant surprises. It is susceptible of assuming all plastic forms. If so desired it can display the energy of painting and sculpture and the boldness of architecture. Everything that issues from the forge has the solidity of a monument."

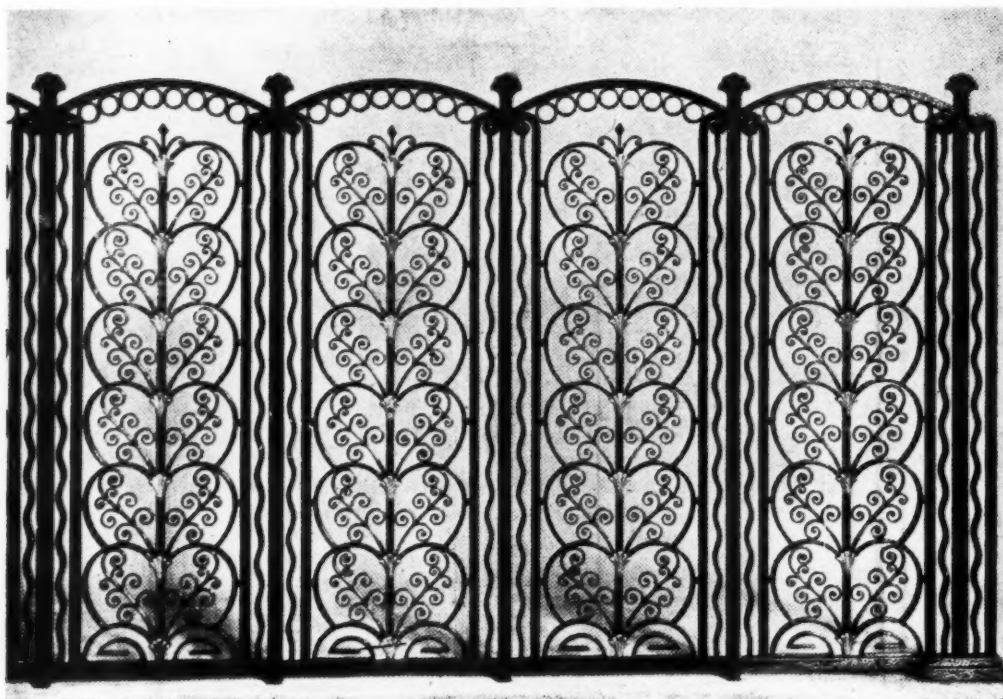
But before the craft of wrought iron could hope to be born anew in strength, simplicity, and grace, this characteristic "boldness," like that essential quality of finely disciplined audacity in architecture, had first to be rescued from the slough of supine degeneracy and effeminate *mauvais goût* which distinguished the nineteenth century in both.

From the dawn of the Middle Ages up to the first quarter of the last century this exquisite decorative handicraft, in which the French have ever excelled, had shown a steady progress in technique and a continuous refinement in design decade by decade, without ever suffering a period of neglect or decline. Then, about 1845, a sudden volcanic eruption of the blast furnaces from new and hitherto unsuspected industrial craters overwhelmed the finials, balustrades, balconies, window-sills, fanlights, and doorways of French towns and villages with machine-moulded

cast iron; and elaborately debased improvisations on classical friezes, conceived in the sleek and smarmy taste of the antimacassar era, submerged what were considered the unutterably plebeian and barbaric forgings of the menial and untutored smith.

How universally disastrous was the result can be seen in the pitifully vulgarized façades of a city such as Lyons, where ironwork medallions look like plaster rosettes, plasterwork swags like cast-iron brackets, and both resemble whitewashed fretwork knick-knacks mounted on canvas-backed woolwork pads. Yet the Lyonnais was always prominent, and at times supreme, among the many French provinces (Lorraine being, perhaps, the most famous) celebrated for their finely-wrought "feronnerie d'art" and the consistency with which the high traditions of the iron-forger's craft were held in honour. In point of time this horrible interregnum of cast-iron virtuosity did not last long, but the amount of work produced in it which still survives is as amazing as it is deplorable.

Even in Lyons (where many of the beautiful old fanlights fortunately remain) the ironwork grew sensibly chastened in exuberance long before any return to a saving sobriety was discernible in architecture. Repellent buildings of the 1906 period, spangled with *art nouveau* rashes and pock-marked with mosaic scars, have often quite surprisingly simple and almost pleasing wrought-iron gates. Today (notwithstanding Tony Garnier's grandiose but only partially realized projects, and the enlightening influence of her mayor, Edouard Herriot), what is still a pre-eminently philistine Lyons has once again been justified of her children in the person of that fine artificer and delicate artist, Charles Piguet—most of whose work is to be found in his native town. But if Lyons, in spite of her noble quays, is a blot on a fair landscape, Piguet's grilles, in their joy to the eye, are like patches of gladdening sunshine. Piguet's best work, like that of his local predecessors and contemporaries, is in pure formal design. In this restricted field he has invented



A grille. By Jausely.

patterns from the severely limited vocabulary of quasi-geometric idiom that are at once new, perfectly simple, and of the utmost refinement.

Of recent years great technical advances have been made in the handling of wrought iron. Formerly the craftsman's sole equipment consisted of his forge, blowers, anvil, and hammers. Now he can avail himself of the pneumatic hammer and riveter, piston denters or pitters, semi-automatic borers and gouges, and a small arsenal of subsidiary mechanical tools. Oxy-acetylene thermit welding provides a variety of hitherto unknown effects, thanks to which work deemed impossible a decade or two ago is now perfectly feasible. New processes and finishes impart different degrees of dullness or brightness of surface, and even modify the metal's basic colour, thereby changing its whole aspect and characteristic patina. It is, however, only fair to say that such a fine artist as Szabo—among whose more notable works may be mentioned the monumental clock for the offices of *Le Temps*; a charming grille in one of the hotels at Angoulême, where skilful use is made of a long line of crows, solemn as black-coated lawyers; and the ornamental ironwork which enriches François Lecœur's recent telephone exchanges in the Rue de Temple and the Rue Bergère in Paris—deplores the advent of homogeneous welding, considering the gas-flare as a miserable labour-saving device only worthy of a mere artisan. Indeed, he fears that its rising popularity will soon cause his darling craft to relapse into much the same sort of mechanical decadence as that from which it has only just emerged. Though still resolute in his refusal to recognize arc-welding as true craftsmanship, he now sometimes consents to employ it, excusing himself with the public's insensibility to such nice distinctions and its impatience of the loyal and venerable traditions that differentiate an art from a trade. Szabo maintains, with a good deal of truth, that in welded work there is no scope

left for individual physiognomy, movement, or the little beauties of technique and detail associated with hand workmanship, and that it is only the composition which counts. The chief advantages of welding lie in the unification of the composition and the ease with which the different pieces of metal constituting it are assembled and co-ordinated. In modelling, however, the smith's forging on the anvil blow by blow remains as indispensable as ever, even if the hammer is now seldom wielded by his hands.

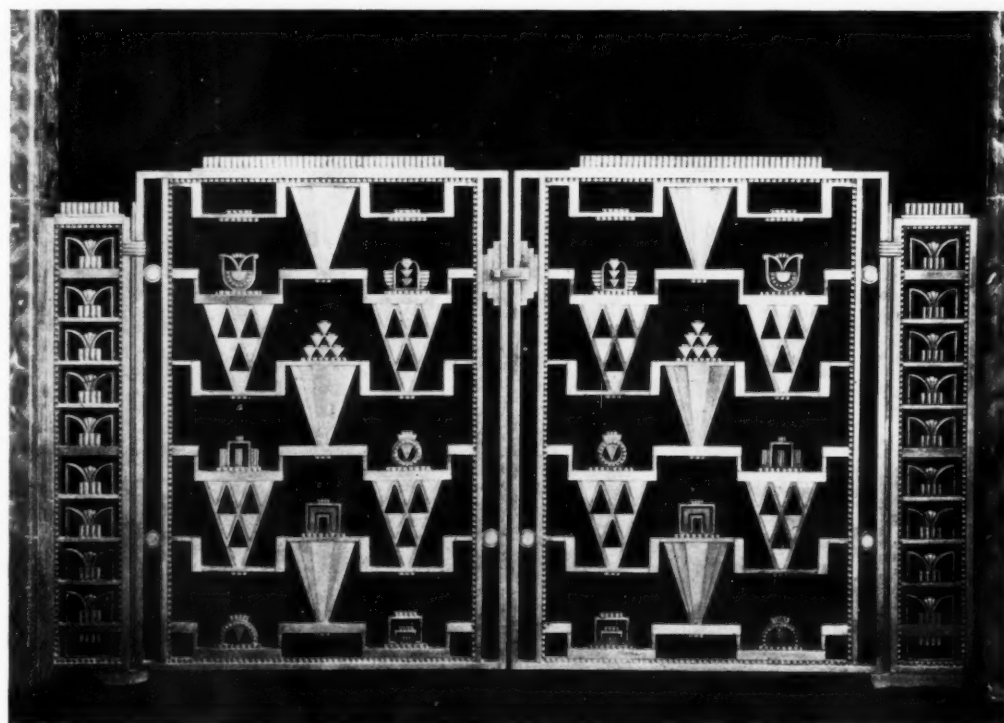
The use of wrought iron in the modern home is perfectly logical and—in view of the increasing severity of our domestic façades and interiors—more than ever desirable. The present, and on the whole regrettable, tendency is to combine it with precious woods in furniture design. On the other hand, wrought iron has a growing and perfectly legitimate sphere in conjunction with frosted glass in the design of electric reading lamps and chandeliers. Naked iron is chilly, hard, numbing, and hostile to the daily contact of the human hand; but there is undoubtedly a wide future household field for iron fixtures coated with those brilliant new lacquers of smooth and rapidly-drying cellulose enamel. Steel or iron is symbolical of power and durability. It cannot without impropriety be associated with simpering prettiness, fussy and attenuated detail or gossamer effects. Nor should this puissant medium be interpreted in terms of tender foliation, the opening petals of a rosebud, a fountain's silvery jets or satin bows and flounces. These are gewgaws for children and romantic spinsters. Still less ought the metal's cold natural hue to be given an artificial warmth of tone. To support a marble slab with stout iron bracing is entirely rational; to poise a thin sheet of glass on a solid iron framework that could sustain a ton's weight is absurd. The suppleness of steel must retain its lithe energy, the taut curves of iron their suggestion of robust and tense endurance.

"The domain of wrought iron," says Richard Desvalières, "is defined by the very qualities proper to it. We must not ask of it effects that can be obtained more felicitously, because more naturally, with the landscape-etcher's burin, the embroiderer's needle or the bobbins of the lace-makers of Auvergne and the Vosges." Raymond Subes—who executed the front-door grille and the grilles concealing the living-room radiators for M. Roux-Spitz's recent block of flats in the Rue Guynemer, Paris, illustrated in *THE ARCHITECTS' JOURNAL* of May 23 of this year—is even more emphatic in his note of warning to the new school of composite experimentalists: "It is no good merely adapting wrought iron to all the legitimate domestic uses of ordinary ironwork; or even resorting to it, as sometimes happens, through a sort of perverse artistic snobbishness, where recourse should rather have been had to almost any other suitable material. This merely jeopardizes the future development of the smith's art and medium. All that wrought iron needs is a judicious and rational employment."

Of the foremost craftsmen working in wrought iron in France today only Subes, Schenck, and Szetlak were represented at the 1928 Paris Salon des Artistes-Décorateurs, which closed its doors in the Grand Palais at the beginning of July. Indeed, the display of wrought ironwork was meagre and unsatisfactory in the extreme. This is all the more to be regretted because the general standard of ornamental metalwork in new buildings and shop-fronts finished this summer shows a very noticeable advance on those of the last few years. The work shown by Schenck at the Salon was almost uninteresting, and in no way worthy, or even typical, of that very gifted craftsman. One particularly pleasing and formal design, however, was a small grillage by the Hungarian, Harry Szetlak, who, it will be remembered, was awarded a Grand Prix at the 1925 Paris Exposition des Arts Décoratifs (not to

be confused with this comparatively modest annual Salon which has a very similar title) of what everyone now seems agreed in considering rather unhappy memory.

The one outstanding exhibit was Expert's soberly composed monumental gate for the new Ecole Nationale Supérieure des Arts Décoratifs: a virile and compact design superbly rendered by Subes. An admirable unity is given to the whole composition by an almost traditional casqued Minerva, this crowning figure being in forcible and yet delicate contrast with the rigid austerity of the plain vertical bars and the small rectangular panels symbolical of the four arts. The latter, though very modern in feeling and execution, are not particularly conspicuous or impressive in themselves. This gate, which is to constitute the sole adventitious decorative note in the building it was designed for, has, like so much recent work, what appears to be a rustless or silvered finish. The old College des Postes in the Rue d'Ulm, which has been largely remodelled by Expert, was officially inaugurated by M. Herriot, the Minister of Public Instruction, on May 14, as the new home of the Ecole Nationale Supérieure; and opened its doors to pupils last October. It may be of interest to recall that the former building of this institution in the Rue de l'Ecole de Médecine, which dated from the end of the seventeenth century, was designed by Charles Joubert for the Paris Guild of Surgeons, and served that body as a demonstration theatre for upwards of fifty years. In 1776 Jean-Jacques Bachelier transferred to these quarters the Ecole Royale Gratuite de Dessin, the predecessor of the present Ecole Nationale Supérieure des Arts Décoratifs. The existing school had long since outgrown the limits of its rather makeshift premises. Indeed, the one cause for regret is that such an important art-school should not have been provided with an entirely new and appropriate building.



Wrought-iron grille shown at the 1928 Salon des Artistes-Décorateurs.

THE NEW CARRERAS BUILDING

[BY E. MAXWELL FRY]

CARRERAS' building in Mornington Crescent is essentially a factory, modernly constructed of reinforced concrete. It consists of five floors of working space, each identical in general, though subdivided in particular—to meet the requirements of a highly-organized factory plant. If it were a factory only, it could be estimated according to the standards of its class. But it is, presumably, more than a factory. It has pretensions. It boasts a unique architectural style, a monumental disposition of masses, and a very personal scheme of decoration. Its style is an attempt to echo in concrete the solemnity and grandeur of the stone architecture of ancient Egypt; its decoration, a re-application of the more readily recognizable and popular features of Egyptian symbolism—the lotus leaf, scarab, and snake.

Now, why has this building adopted the architectural style and decoration of ancient Egypt, when it is obviously a factory through and through? Did its designer, or initiator, find some exact affinity between the priest-kings of the Nile and himself, or was the multi-coloured raiment with which the building is cloaked thought fitting and congruous to its construction? Is it seriously an attempt to solve the vexed question of style, or does it just feel Egyptian?

Two black cats? What symbols are these? They look very like English cats, very homely pussies! Are they, too,

Egyptian? Yes. They are the very heart of the matter. They are *the* black cats, representatives of the one and only true Black Cat, which all the world knows to be a Virginian cigarette. All this for a cigarette? Is this symbolism, or fancy dress? It is, in a loose manner of speaking, both; for apparently the choice of a style was suggested by a rather far-drawn reference to the sacred cats of Egypt. By employing an Egyptian mannerism for the main façade of the building it was possible to introduce the representation of a black cat in forms varying in size and importance, from the large figures that flank the main entrance to the myriad medallion reliefs that occur in monotonous repetition over the rest of the building. It was for purposes of advertisement, then, that this building gathered to itself the lotus, scarab, snake, and sacred cat!

Luckily for the owners of the building, whose dreams of Egyptian scenic effects might quite easily have ruined the entire scheme, the construction of concrete pier and beam, coupled with large areas of window, have robbed the building of any close resemblance with the architecture of Egypt. The Egyptian motif is subordinated to the main purposes of a factory by mere pressure of economic necessity, and becomes no more than a note of colour, a flush of individual caprice warming the main façade. All attempts to suggest the massive construction of Egyptian architecture are completely frustrated by the very nature of reinforced



*Carreras' new factory,
Camden Town. By M.
E. and O. H. Collins.
The main entrance.*



Carreras' new factory, Camden Town. By M. E. and O. H. Collins. The main front.



*Carreras' new factory, Camden Town. By M. E.
and O. H. Collins. A detail of the main façade.*

concrete construction. The great cornice is evidently a sham; the bulbous columns, the battered entrance doorway, the square lintels—all these are of no avail and, in so far as they affect the building in the mass, need never have been built. In truth, the building is not one whit more Egyptian for all its trouble, and if it were, it would be as difficult to place it as it is to find one's partner at a fancy-dress ball.

In spite of its heavy disguise the building is rather beautiful. It will never be seen in direct elevation owing to its position; so that the views which are reproduced here show the building as it will appear to most people while the present street plan holds good.

Having tried to discover why the main façade exhibited the mannerisms of an archaic architecture, and having rather suspected it to be a piece of ponderous scenery secured to a factory for purposes of advertisement, we might turn, for further confirmation of our surmise, to examine the back of the stage, which is really the working-front of the factory. We find the fresh, cleanly-finished and thoroughly wholesome piece of work illustrated below. The difference between the front and the back of this building is the most startling and, at the same time, the

most reassuring point about the building. The inhabitants of Mornington Crescent have had the best of the building after all, for if I had to live within view of Carreras' factory I would choose to look out upon the back and not the front. The front is heavy and sententious; the back, light and unconsciously graceful: and the true expression of reinforced concrete flows towards lightness and rigidity, abhorring weight and mass and all the ponderousness of stone. And when shall we finally cast aside as being foreign to the true intent of modern building the trappings of past styles, be they eighteenth century or of the dynasty Rameses. If steel and concrete are to be used economically, then the full-blown columns, the amorini and the cornucopia are as so much scenery hung about in dead weight upon the structure; and if, on the other hand, construction is to be a meek supporter of all the panoply of Greece and Rome raised to glorify the achievements of commercial enterprise, then all the freshness and clarity of expression that spring from a true economy of means will never enter such a building.

This building is saved from over-ostentation because it has had first to be a factory and then a showpiece.



Carreras' new factory, Camden Town. By M. E. and O. H. Collins. The loading docks at back of building.



Carreras' new factory, Camden Town. By M. E. and O. H. Collins. The board-room on the ground floor.

Considerations of economical construction and the demand for large lighting surfaces qualified every attempt to be heavy and grand. This is obvious when you see the vast areas of light and cheerful working space that is enclosed by the outer walls. Nothing could be sparer or more economical than the graceful piers that stand in long aisles through these great workshops. Everything here is light and spacious, with sunlight pouring through walls of glass. Even the machines that turn out a thousand "Black Cats" in one minute are mere incidents in the scheme, like the orderly lines of cases in a well-planned museum. Indeed, how like museums the modern factory can be! If it were not for the noise, so constant as to be soon forgotten, there would remain only minor differences by which to classify the interiors of museums, offices, departmental stores, and factories.

We leave behind us the sane and healthy regions of the factory to enter the board-room.

It is at least in harmony with the scheme of decoration imposed upon the architect; but, when that is said, there is little more to add. It is a room unsatisfactory in form and garish in its colour, decoration, and lighting. It announces more clearly even than the exterior the hazardous nature of this Egyptian undertaking.

It might be repeated, in conclusion, that this building is good to look at despite a very serious divergence of purpose that leaves the main façade indefinite and worrying; that the rear elevation is immeasurably superior to the front by reason of its greater clarity of expression; and that the

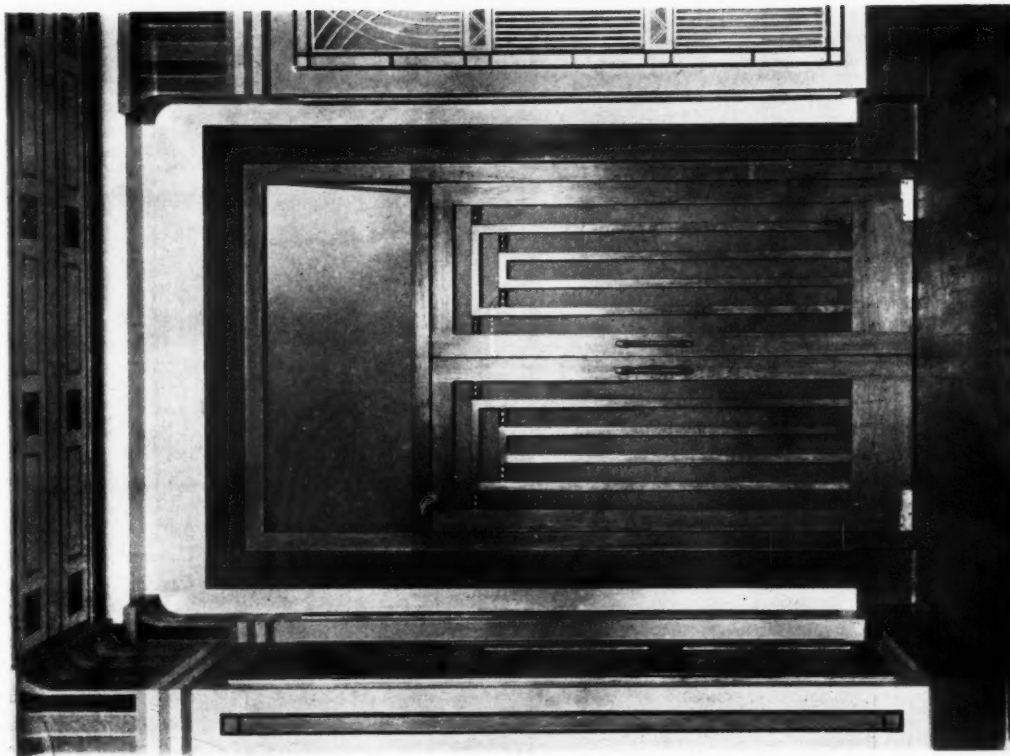
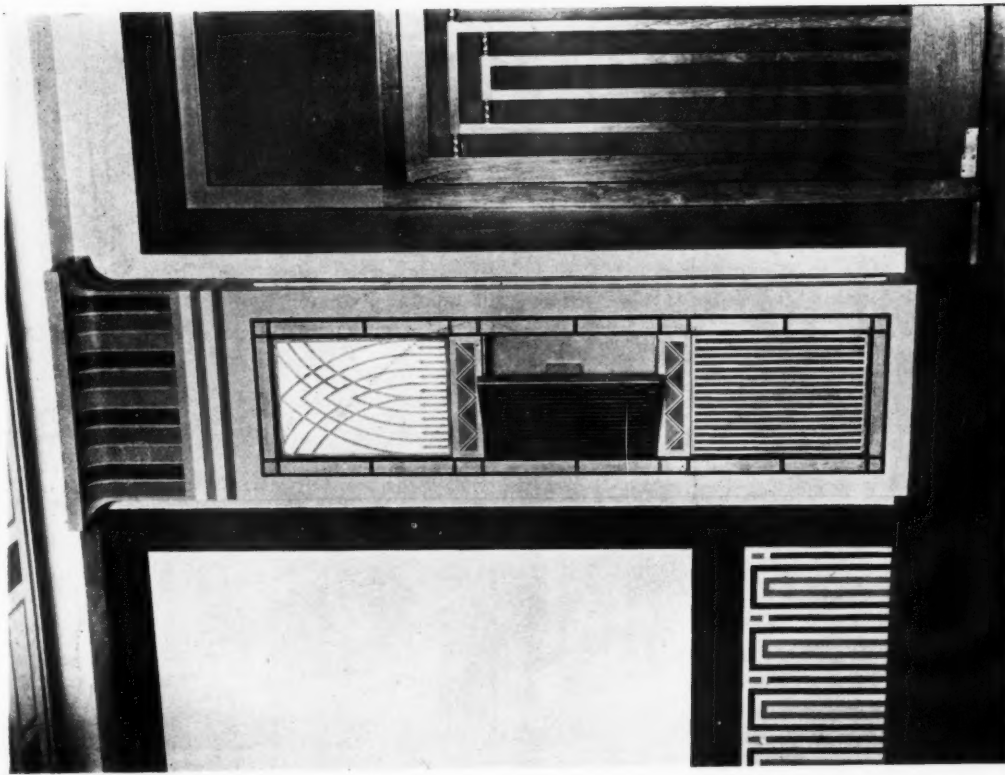
colour decoration, so very interesting in itself, does not very much affect the building as a whole.

It is to be hoped that manufacturers who build as magnificently as this in the future will not allow the trade-mark of the goods they sell to influence their choice of architectural style. It had been better, perhaps, if Mr. Morris's Oxford works were quadrangular instead of saw-toothed, but I shudder to think of what might follow elsewhere.

* * *

The exterior surface—front, back, and all the way round the east frontage, north and south ends, and the western aspect with its tall chimney-stack—owes its colour content to Atlas White Portland cement. That applies to the cream-hued stucco renderings and bright-coloured cast work (with crushed Venetian glass as aggregate) alike—to every inch of surface except the window panes and the frames that hold them. The ingredients of the cream stucco were Atlas White Portland cement, silica sand of buff colour, and water—with no oxides or pigments added.

[Four articles by Mr. C. W. Box, describing the actual constructive methods employed in Carreras' new tobacco factory, were published in our issues for May 23, May 30, June 6, and June 27 respectively. These articles dealt in detail with the various methods of construction adopted, from the excavation of the site to the finishing of the exterior and interior of the building, and were profusely illustrated with detail drawings and photographs.—ED. A. J.]



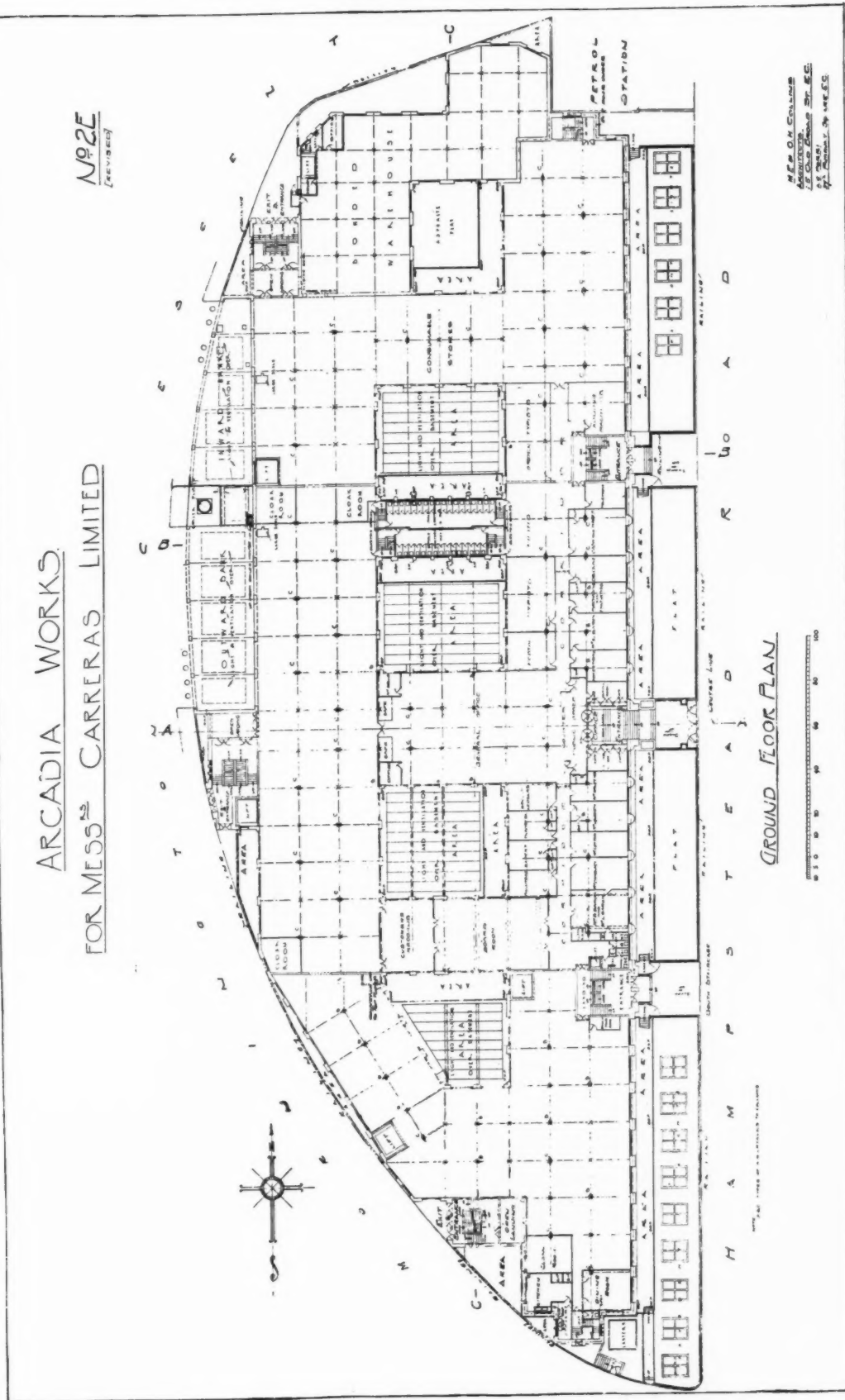
*Correrias' new factory, Camden Town. By M. E. and O. H. Collins.
Left, the board-room door. Right, ventilation and light panels in board-room.*



Carreras' new factory, Camden Town. By M. E. and O. H. Collins. Above, examining and machine packing room. Below, conveyors on fourth floor to take cigarettes to packing and conditioning rooms.

ARCADIA WORKS
FOR MESS^{rs} CARRERAS LIMITED

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[REVISIÓN]



Carreras' new factory, Camden Town. By M. E. and O. H. Collins. Plan of ground floor.

LAW REPORTS

ROAD CHARGES: LIABILITY

Hindle v. Limb. King's Bench Division. Before Mr. Justice Rowlatt

This action raised a point of interest in regard to road charges in a conveyance providing that the defendant, Miss C. Limb, of Golder's Green, should pay the same to the plaintiff, Mr. G. E. Hindle, of Loose, Maidstone. Plaintiff now sued the defendant to recover £164 odd, the sum which he had paid to the previous owner, a Mr. Waite, from whom the local authority had claimed for the making up of Northdown Way, Margate, where the land which the defendant had bought was situated.

Sir Reginald M. Bankes, K.C., for the plaintiff, said the land in question was conveyed to the defendant in April 1920, with a proviso that she should pay "all road charges." He argued that the conveyance included the piece of land in question.

Mr. Newcastle, for the defendant, contended that the charge concerned land not included in her conveyance.

His lordship, in giving judgment, said that the conveyance made the defendant liable for all road charges in respect of a private roadway shown in the plan attached to the conveyance. The expression had to have some limitation and must have meant all charges in respect of the land conveyed. The charge was made upon land which the local authority treated as not being conveyed to the defendant, but as belonging to Mr. Waite. The conveyance in question for the land in respect of which the charge was made is described as abutting on the roadway. Both parties appeared to agree that that piece of land was Mr. Waite's, and in those circumstances there had been no breach, and he dismissed the action, with costs.

EXCESSIVE TRAFFIC ON HIGHWAY: LIABILITY FOR DAMAGE

Eastbourne County Borough v. Fuller and Sons. King's Bench Division. Before Mr. Justice McCardie

The Eastbourne County Borough by this action sought to recover from Messrs. Fuller and Sons, of Western Road, Lewes, £255 odd, expenses incurred by the plaintiffs as highway authority for the county borough arising from excessive weight and extraordinary traffic passing over East Dean Road, Eastbourne. The plaintiffs alleged that on or about July 14, 1926, the defendants caused two Fowler traction locomotives drawing an eight-share steam plough and presser, and 12-prong cultivator, a living-van, and a water-van to be conducted over East Dean Road; and that it appeared from a certificate of the plaintiffs' surveyor, dated January 27, 1927, that, having regard to the average expense of repairing highways in the neighbourhood, extraordinary expenses had been incurred by the plaintiffs in repairing East Dean Road by reason of the damage caused by excessive weight passing along it and excessive traffic thereon through the action of the defendants in conducting the locomotives and machinery along it. The plaintiffs relied on the Highways and Locomotives (Amendment) Act, 1878, and the Locomotive Act, 1898. It was alleged that the machines tore up the surface of the road, which had been softened by the heat of the sun.

In the alternative, the plaintiffs said that the locomotives and machines attached thereto were, as to weight and otherwise, of an unusual and excessive description, and that their conduct over the highway caused material inconvenience and obstruction to free passage thereon and was a wrongful abuse of the highway at common law, whereby the plaintiffs had suffered damage to the extent of £255 12s. 2d. In the further alternative, the plaintiffs claimed the like sum as damages for a common law nuisance.

The defendants admitted the passage of the locomotives and machinery and the giving of the surveyor's certificate, but said that it did not comply with the provisions of the Acts in that it did not deal with highways similar to East Dean Road. They denied that any extraordinary expenses had been incurred by the

plaintiffs, or that they had suffered damage. If any damage or expense had been suffered they arose solely from, or were contributed to by, the fact that the plaintiffs failed to put or maintain the road in a condition fit to carry the traffic to be expected on it. The locomotives and machinery were traffic of a kind which might be expected. The defendants further relied on the fact that the locomotives were constructed before the passing of the Acts.

Mr. Montgomery, K.C., and Mr. Wedderburn appeared for the plaintiffs; Mr. Croom-Johnson, K.C., and Mr. Moresby for the defendants.

His lordship, in a considered judgment, said he was satisfied that the thickness of 3 in. of the "carpet" of mixphalte and chippings was not adhered to throughout the section of the road on which the damage arose; that a somewhat larger amount of mixphalte was used than was usual or necessary; and that it was not so treated or distributed as to percolate as well and thoroughly as was desirable. On the whole, however, it was, notwithstanding, an excellent and first-class road. The first head of the plaintiffs' claim was based on section 23 of the Highways and Locomotives (Amendment) Act, 1878, a section which had led to much and prolonged litigation. In the present case he thought that no difficulty arose. Agricultural traffic, including heavy traction engines, was admittedly part of the ordinary traffic of East Dean Road, and he held that the weights were not excessive or the traffic extraordinary and that no claim arose under either head of the Act.

The next head of claim was based on damage resulting, it was alleged, from the wrongful abuse of the highway by the defendants. The injury in question arose through an extraordinary concurrence of circumstances. July 14, 1926, was an abnormal day. It was the hottest day of the year, and the defendants happened to pass at the hottest part of the day over the most exposed part of the road. He held, accordingly, that there was no wrongful abuse of the highway. It was unnecessary in the circumstances to consider the distinction between nuisance and wrongful abuse of a highway. For the reasons given he could not hold that the defendants' vehicle constituted a nuisance, whatever the precise definition of a nuisance might be. Neither did he see any negligence on the part of the defendants, who could not reasonably have contemplated such a strange occurrence. He thought that they did the best thing they could in the circumstances. The action therefore failed, and he dismissed it, with costs.

ALLEGED BREACH OF COVENANT

Shorr v. Edward Mortimer (London), Ltd. Chancery Division. Before Mr. Justice Eve

This was an action arising out of a lease granted in respect of Nos. 22 and 24 High Road, Lee, for a term of twenty-one years, which contained a covenant that no other shops belonging to the grantors of the lease should be let for the carrying on of the business of a ladies' costumier, furrier or dressmaker.

The action was brought by Mr. J. Shorr against Edward Mortimer (London), Ltd., to recover damages for breach of the covenant in the lease of October 1923. The Rhodenhurst Estates, Ltd., were assigns of the defendants, to whom they had let several shops. Plaintiff's case was that the Estates Company had granted a lease of 38 High Road to a Mrs. Abrahams, who carried on the business of a ladies' costumier, and he had suffered damage.

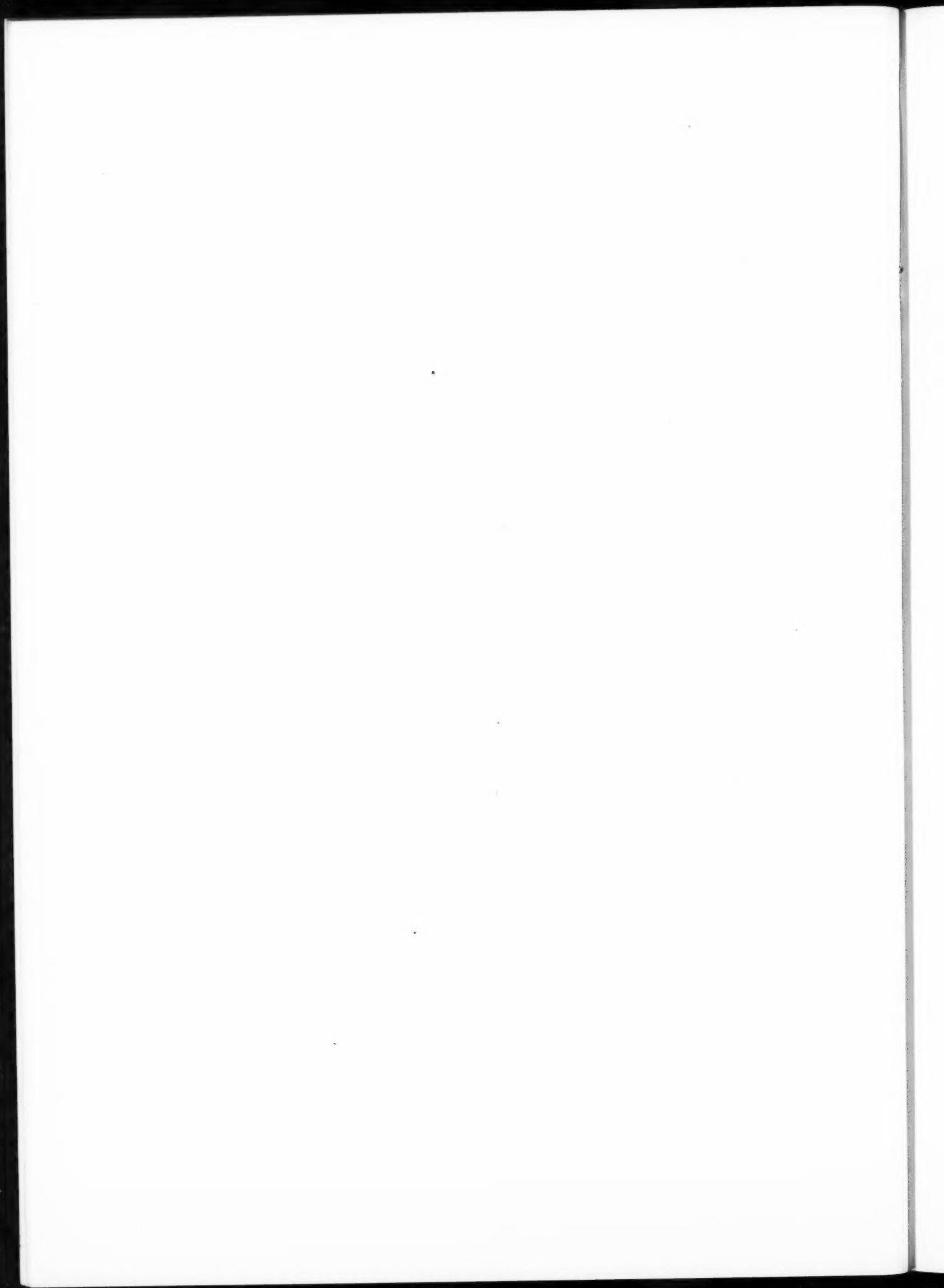
Defendants replied that the business carried on by Mrs. Abrahams was that of a ladies' outfitter, and pleaded that there was no breach inasmuch as that business was quite distinct from plaintiff's.

His lordship, whilst admitting that the business carried on at 38 High Road was a costumier's business, yet on the construction of the covenant said he was bound to hold that the defendants had not been guilty of any breach of covenant. The assigns had not let the premises for any competing business. Here the tenant had secured a waiver by her immediate landlords of the restriction, but that waiver did not operate as a breach of covenant. The covenant should have been expressed in far wider terms if plaintiff had intended to safeguard himself according to the language; there had been no breach, and he dismissed the action, with costs.



ENGLISH PRECEDENT

39 Christ's College, Cambridge. Entrance to the Fellows' Garden. Garden entrances by way of tunnels through houses are uncommon. This example forms the central feature of a building whose side entrances were illustrated in an earlier photograph. The prominence which the central position demands is given by simple expedients. The pediments to the side entrances are curved, that to the centre triangular; in the windows above this process is reversed; while the pseudo-elliptical gate arch avoids a too violent differentiation from the semicircular form used at the sides. The brackets flanking the central window afford a further slight emphasis. The carving is childish; but in 1640 the Italian manner had not yet advanced very far.—[HAROLD TOMLINSON.]



THE STEREOTOMY OF GOTHIC VAULT CONSTRUCTION

[BY JAMES S. BOYD]

A GOTHIC vault is a vault the ribs of which intersect, and whose thrusts are principally counteracted by buttresses. Such a vault consists of an arrangement of stone arches or ribs, each of which is worked in the same manner as a cylindrical arch. Upon the backs of these arches rest the voussoirs or infilling of the compartments. In Renaissance or groined vaults, the groins of which have no ribs, the chief feature is the vaulting surface, the proper disposition of which is the main object requiring attention. In Gothic ribbed vaults, on the other hand, the ribs are the principal features, the infilling surface of the vaults being subordinate. Irregularity of the vaulting surface is an essential characteristic of Gothic vaults, and such vaults should not have the form of simple intersecting pointed cylindrical vaults.

It is not the intention of the author to enter into a description of the different varieties of vaults; but the following article is intended to be of service to the architect, the foreman mason, and the stonemason in carrying out new work in conformity with existing medieval examples. The scale drawings reproduced are mainly based upon measured sketches made by the author in the course of personal study of existing Gothic specimens.

Alternative methods of arranging Gothic vault ribs in plan: In a square compartment—such as is shown at E in the diagram figure one—the diagonal ribs are straight in plan, and are drawn from the centres of the four octagonal piers. The crossing of the diagonals being exactly in the centre of the square, each half of the ribs is of equal length. The transverse and longitudinal

DIAGRAM SHOWING ALTERNATIVE METHODS OF ARRANGING GOTHIC VAULT RIBS IN PLAN.

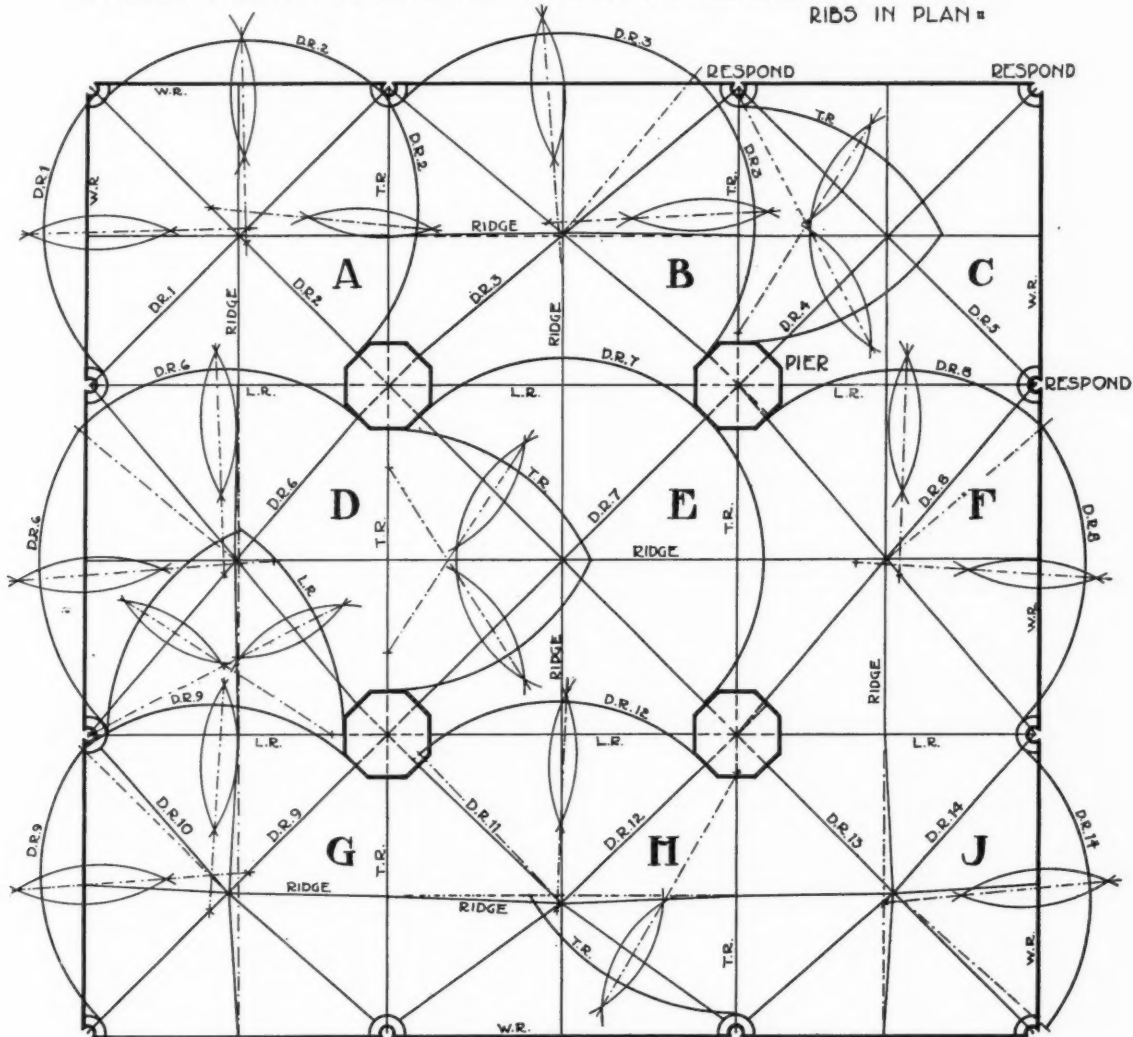


Figure one.

ribs on the four sides of the square each also consist of two portions of equal length and curvature, the ridges being straight in plan and coinciding with the axial lines.

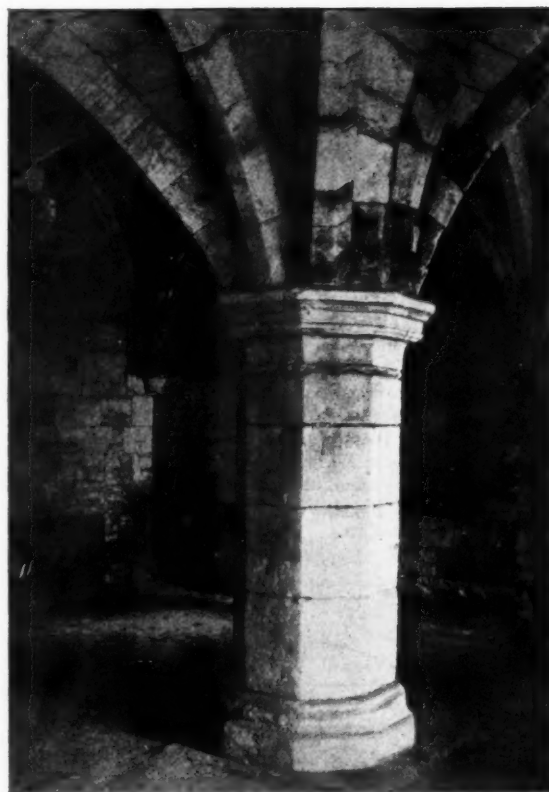
In the square compartments marked A and C in the same diagram, the diagonal ribs and the ridges are also straight in plan, but the diagonal ribs (2 and 4) spanning from the pier to the respond in the angle of each compartment have one side shorter in length than the other. This is due to the difference in size between the pier and the respond. It will also be observed that the half of the diagonal rib springing from the pier is of a different curvature to that springing from the respond. The other diagonal ribs (1 and 5) in these compartments have both sides equal in length and curvature because both halves of the ribs spring from responds. In order to preserve the ridges straight in plan, the transverse and longitudinal ribs have one side—the one springing from the pier—shorter than the other. In the square compartment G, the ribs and ridges are arranged so that each diagonal rib consists of two halves of equal length. This arrangement is bad statically, as one of the diagonal ribs (No. 10) is not contained in a vertical plane. The span of the diagonal rib (No. 9) extending from the pier to the angle respond being shorter than that of diagonal No. 10, their curvatures will not both be alike. Observe also that in this compartment the wall ribs and transverse rib are each of two equal halves. By this arrangement of ribs in plan the ridges will not coincide with, or be parallel to, the axial lines of the compartment. This, it may be stated, is no serious objection. Compartment J is similar to G. The arrangement of the ribs in an oblong compartment requires more careful consideration than is necessary when the compartment is square. If a symmetrical disposition of the ribs at the springing on the pier is desired, the centre lines of the diagonal ribs should be drawn from the centre of one face of the octagonal pier—not from the centre of the pier as in a square compartment. See compartment B. When the diagonals are drawn straight in plan it will be observed that the point where they cross each other will not be exactly in the centre of the length of the diagonal ribs. The ridge line, therefore, will not be straight, but there is not the slightest objection to this, and as a matter of fact most old examples of oblong-shaped compartments have their ridges like this. As a result of the diagonal ribs being straight in plan, one half of each diagonal will be shorter than the other, and the curvatures of each half will not be alike. The wall and longitudinal ribs are symmetrical. Compartment D is similar to B.

In the oblong compartment H, the ribs and ridges are so arranged that each diagonal rib consists of two halves of equal length and similar curvature. The diagonals are drawn from the centre of the octagonal face of each pier, and it will be noticed that the centre lines of the diagonal ribs do not stand in vertical planes, as it is desirable they should do. The longitudinal ridge is also bent in plan, but all the ribs are symmetrical in curvature and length, which is an advantage in execution.

In the oblong compartment F, there is shown the arrangement to be adopted when it is required that both the ridges and the diagonals must be straight in plan. To satisfy this condition the point of crossing of the diagonals must coincide with the point of crossing of the ridges. The centre lines of the diagonal ribs must therefore be drawn from the centre of the pier to the centre of respond. It will now be observed that a symmetrical disposition of the diagonal ribs at the springing on the flat side of the octagonal pier is impossible. There is no statical objection to this arrangement, but a case may occur in which the mouldings on the diagonal rib were so large as to impinge upon the octagonal face adjacent to that from which the diagonal springs. (See the photograph of the vault at St. Leonard's Hospital, York, here reproduced.)

The vaulted compartment shown in figure two is somewhat similar to that marked B in figure one. An oblong plan is selected for study because in it the arrangement of the ribs requires more thoughtful consideration than is necessary when the compartment is an exact square in plan.

For the actual making of the stonecutter's moulds not more than a half plan (with the projection of the rib profiles) need be



Vault of St. Leonard's Hospital, York.

drawn down full-size on the drawing-floor, but in order to make a more extensive study of the jointing the whole plan has been drawn to a small scale. For the projection of the necessary moulds and bevells the large-scale drawings in figures three and four are prepared.

The Small-scale Drawing, figure two: The plan of the small window and the buttress need not be considered in the study of the jointing of the vault, but they are shown here so as to convey a correct conception of the thickness of the wall and size of buttress that would be used.

Begin by drawing the axial lines of the compartments, and set out the oblong, 9 ft. 10 in. by 8 ft. 6 in., the dimensions centre to centre of piers, and from centre of piers to inner face of wall respectively. These lines now set out are the centre lines of the transverse and longitudinal ribs, and over them should be drawn the plan of the pier and the respond. As there is no respond shaft used in this example, the abacus of the corbel respond only is drawn adjoining the wall. The centre lines of the diagonal ribs are now drawn from the centre of the corbel respond to the centre of an octagonal face of the pier. This, as already stated, gives a symmetrical disposition of the ribs as they spring from the pier, and, as already pointed out in dealing with figure one, the diagonals being straight in plan, their point of crossing, i.e. the centre of the keystone, will not divide each D.R. into two parts of equal length.

The grouping of the ribs on the abaci must now be considered. Draw an arc of a circle concentric with, and about 2 in. within, the abacus line of the corbel respond. On this arc the edges of the ribs are arranged. It may be observed, however, that this arrangement is rather symmetrical, and in the best examples of medieval Gothic vaults the apparent general independence of the ribs is rendered more evident by setting back the noses of the ribs at varying distances from the edge of the abacus. It may also be remarked that the wall rib need not be similar in section to the other ribs. The section of the wall rib shown in

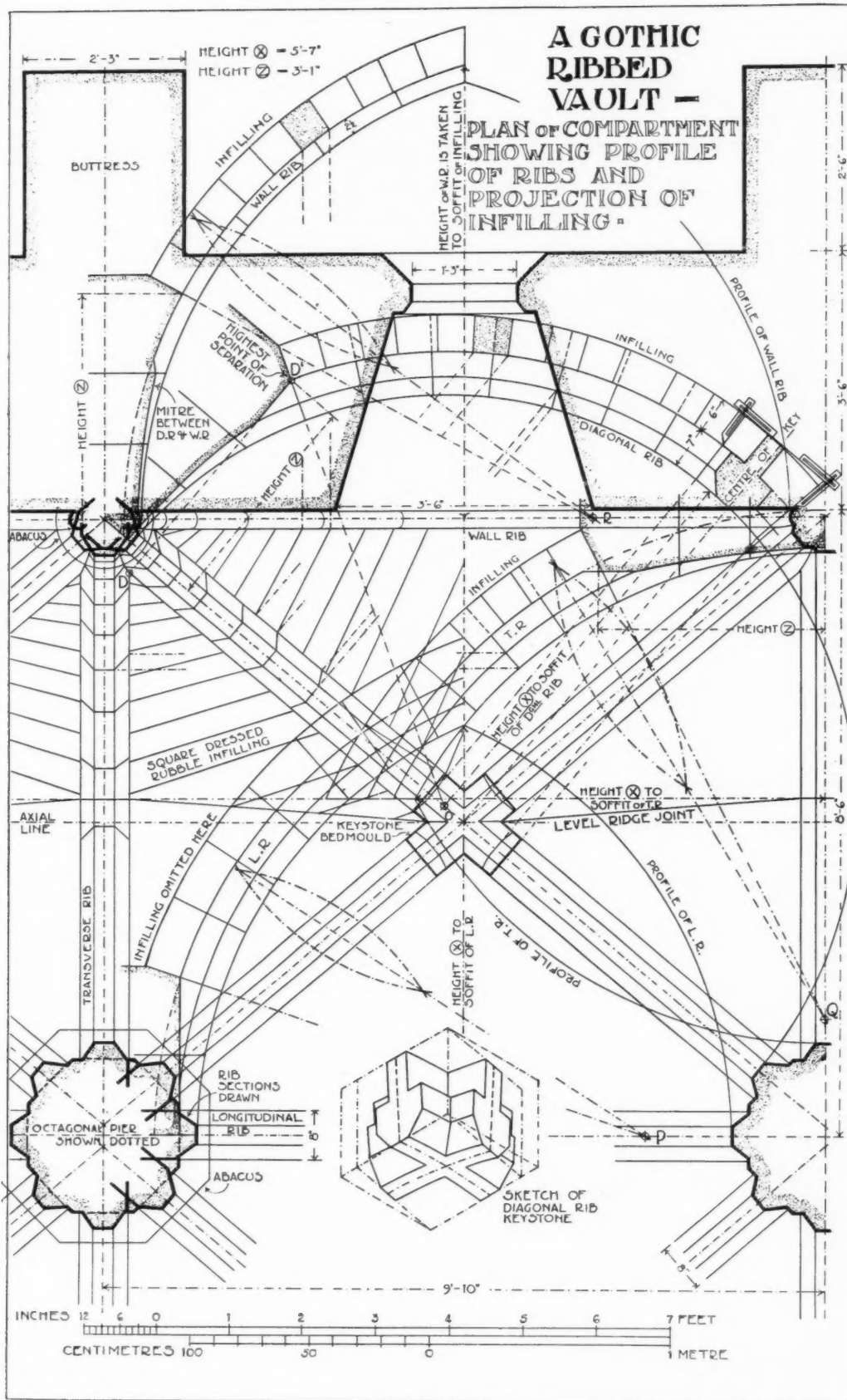


Figure two.

this example therefore is quite different from the others, and this is in conformity with the usual medieval practice. The normal sections of all the ribs are now drawn each in their proper relation to their respective centre lines. In setting out the position of the rib edges on the octagonal abacus, they should also be about 2 in. from the edge of the latter, and the normal sections of the ribs will be drawn here also as already explained and as shown in the plan. Draw in plan the thickness of the ribs (8 in.) and the lines of the mouldings.

Curvature of Ribs: A great deal of the effect and character of Gothic vaults depends upon the curvatures of the ribs. The vault under consideration, being based on early medieval work, has been so arranged that half of each rib consists of one arc of a circle with centres upon the springing level. Single arc ribs (it may be observed) have a greater appearance of mutual independence than when the ribs consist of two arcs. Each rib—separately considered, being a simple arch—must have its profile set out as shown. In this example begin by drawing the soffit curve of the diagonal rib, because that, having the greatest span, its curvature should be settled first, and as this rib so often appears to be semi-circular in old examples it may be assumed that its curvature was first settled by the Gothic builders. Using the centre line of the D.R. in plan as a ground line, and assuming that its profile is to be semicircular, with centre O describe a semicircle over the clear span. Extend the radius 7 in. and draw the rib rebate, draw also the infilling, allowing 6 in. as thickness. Assuming the ridges of the vault to be approximately level, set up the height of the soffits of the L.R. and T.R. to the height X, measuring from the centre lines of the ribs in plan as springing lines. Bisect as shown to find centres P and Q of the L.R. and T.R. respectively, then draw the soffit curve, rib rebate and extrados of infilling as explained for D.R. The wall rib being of very small section (2½ in.), its height should be measured to the soffit of the infilling instead of to the soffit of the rib. Bisect to find centre R, and draw the profile, adding also the thickness of the infilling.

The Vault Springers, or Tas-de-charge: In Gothic vaults, the springers of the ribs are not truly arched as they are in the

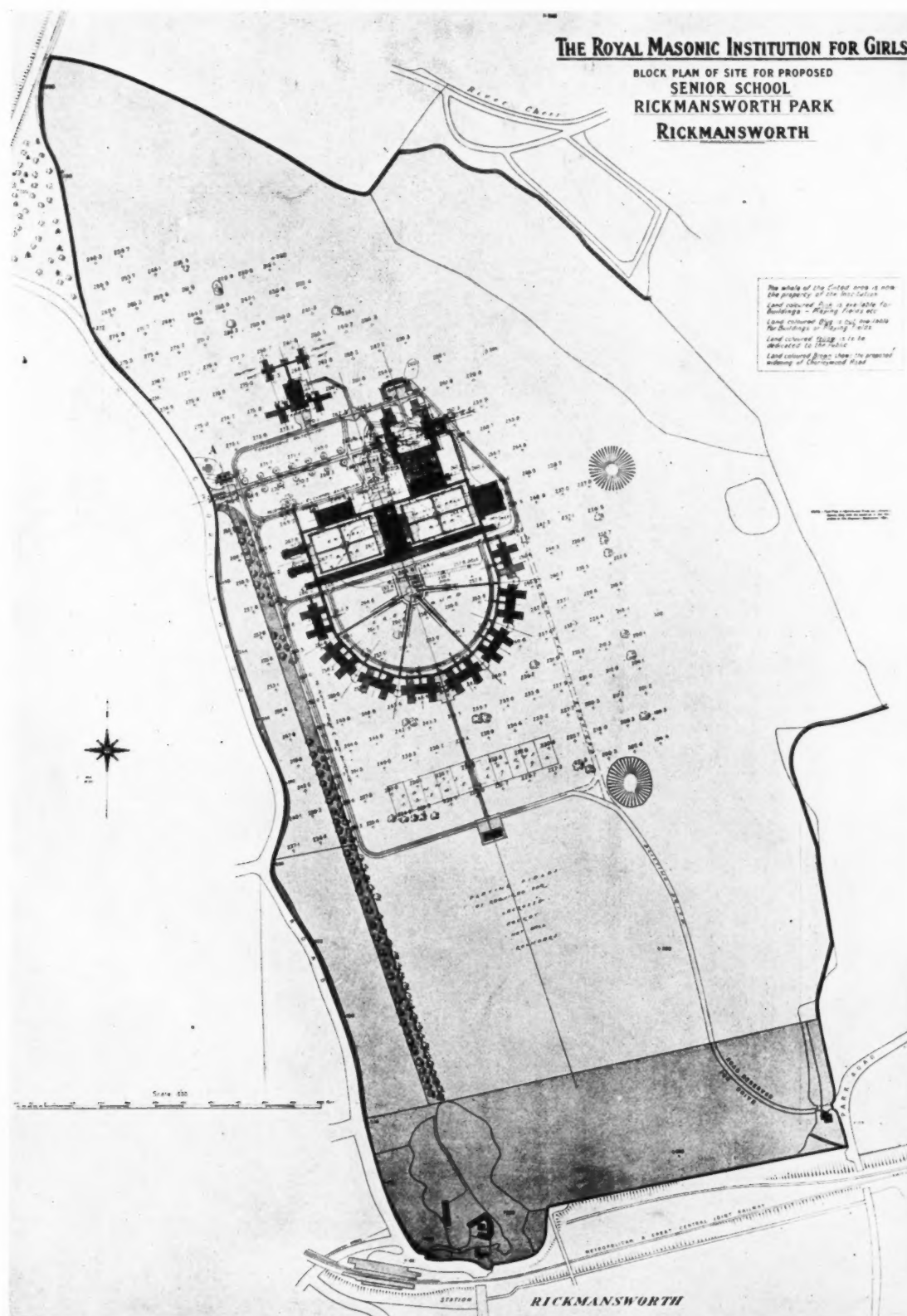
vaults of the Romanesque period, but they are built in horizontal courses, the arched construction beginning where the solid springers terminate. The height to which these corbelled courses are carried in old examples varies, but they often reach up to one-half the vertical height of the vault, and above this level each rib is independent. The highest point at which the ribs are independent in this example is the point D in plan, from this project up to cut the rib rebate on the profile of the D.R. in the point D¹, and through this point draw the first radiating bed joint. The height (Z) of this point is now set up on the T.R. and W.R., and the radiating bed joints drawn to their respective centres Q and R. Divide the solid springer into, say, three courses, and draw the level beds. It will be observed that the top level bed of the uppermost stone in the three sections of the tas-de-charge is obtained from the intersection of the radiating bed with the extrados of the D.R. In the solid springer over the octagonal pier the first radiating bed is much lower than in the springer at the wall, and it consists of two courses only. The rib arches consist of several comparatively small stones of varying length, and the face moulds required for the cutting of these are obtained from full-size drawings of the rib profiles set out as just described.

The Infilling: In most examples of old work the infilling courses of the vaults are not commonly laid level, but have an inclination downwards to the D.R. Moulds for the cutting of these rubble coursers are quite unnecessary as they are parallel, the soffits being flat and straight, and the bed joints approximately normal to the general curvature of the soffit. The first infilling stone at the springing is laid level, and the others as they are built into position gradually incline downwards to the D.R., and in consequence of this they "dance" round until they are approximately normal to a bisector of the angle which they fill. To project the infilling into plan it will be sufficiently accurate to divide the infilling soffit in the sections into suitable widths, not necessarily alike, and project to the sides of the ribs in plan as shown by the shaded stone in the drawing, figure two. It will be noticed that a vertical joint occurs at the apex of the infilling.

[To be continued]



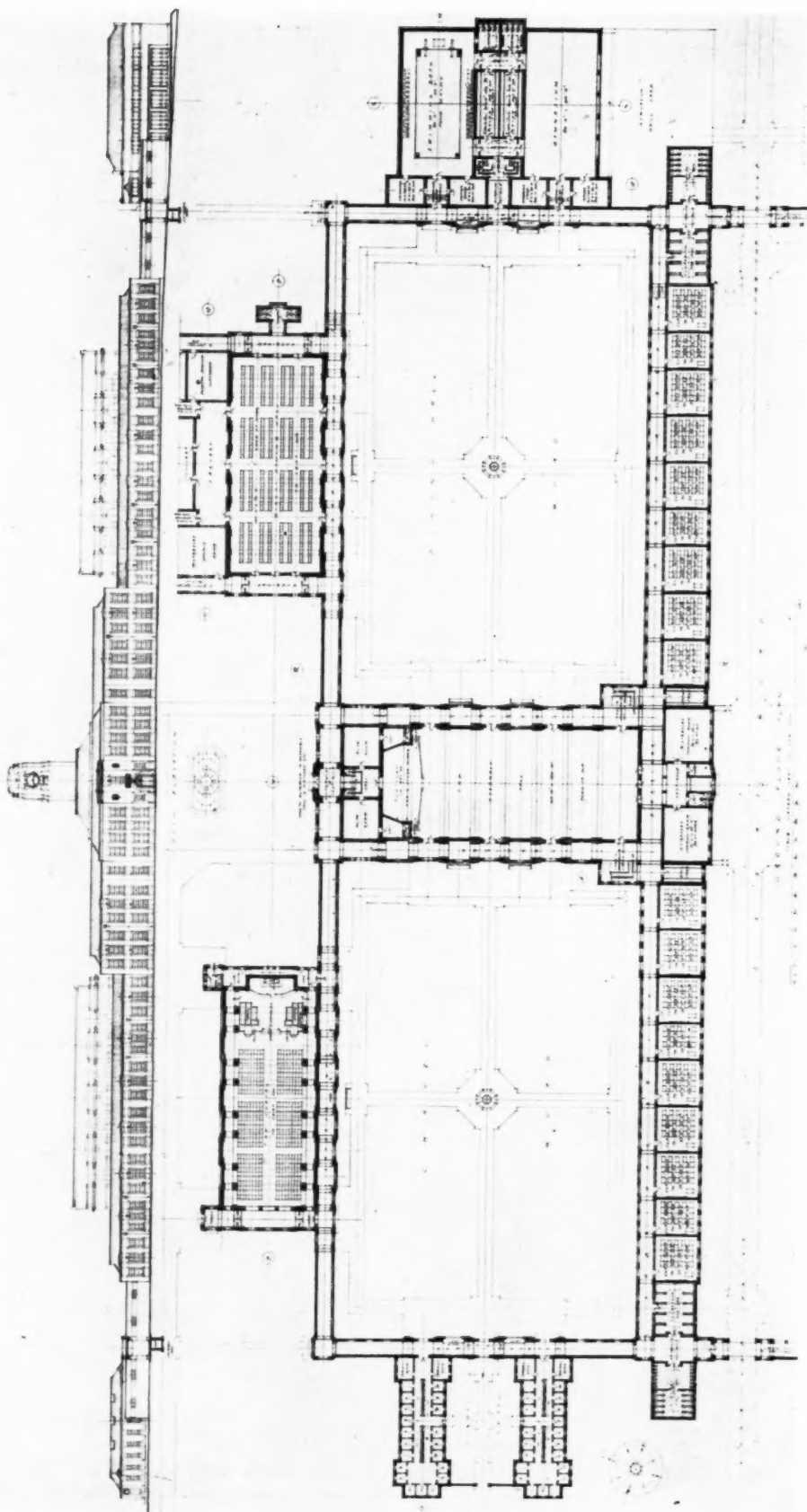
An oval garden house in Warlington Park. By Philip Tilden.



Competition for new school at Rickmansworth Park for the Royal Masonic Institution for Girls. The winning design. By Denman and Son.

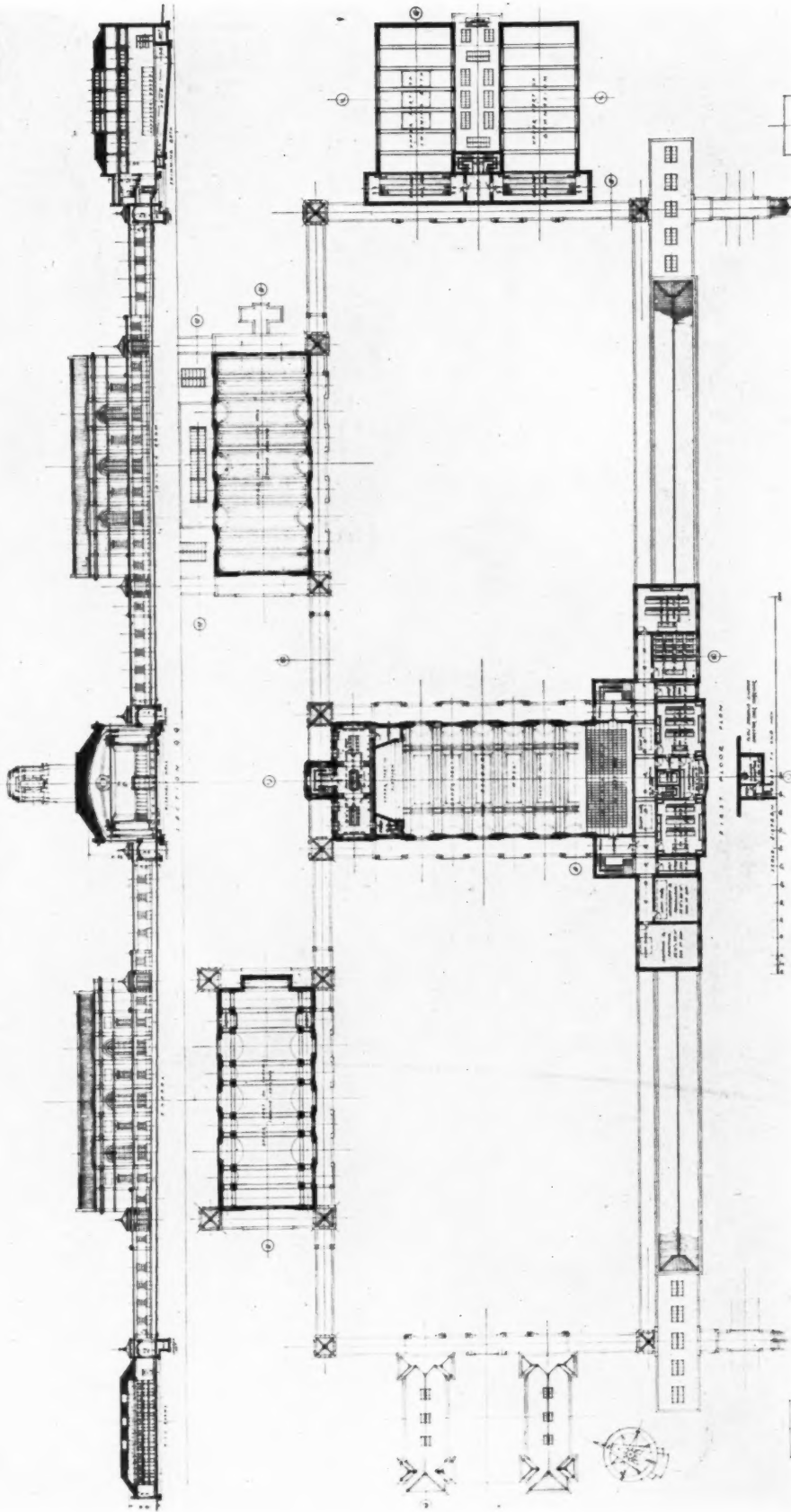
THE ARCHITECTS' JOURNAL COMPETITION SUPPLEMENT, NOVEMBER 21, 1928

*R.M.I.C. SCHOOL AT RICKMANSWORTH
THE SCHOOL BUILDINGS*



R.M.I.G. SCHOOL - AT RICKMANSWORTH - THE SCHOOL BUILDINGS.

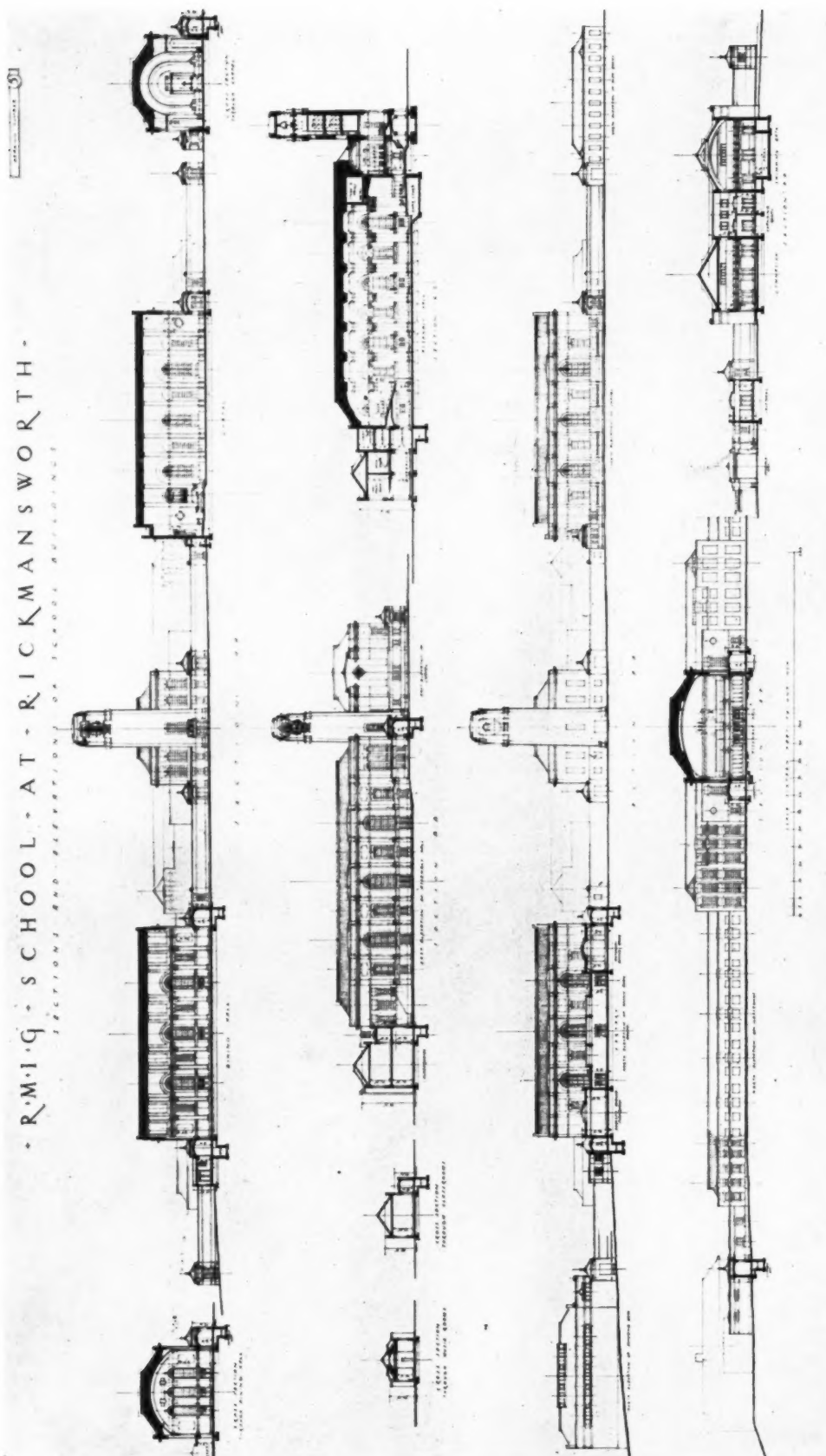
PLAN NO. 1000



Competition for new school at Rickmansworth Park for the Royal Masonic
Institution for Girls. The winning design. By Denman and Son.

R.M.I.G. SCHOOL AT RICKMANSWORTH

SECTIONS AND ELEVATIONS OF SCHOOL BUILDINGS



Competition for new school at Rickmansworth Park for the Royal Masonic Institution for Girls. The winning design. By Denman and Son.

CORRESPONDENCE

A HOUSE IN RURAL ENGLAND

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—There is a house on the cover of last week's ARCHITECTS' JOURNAL which is mine. In the whole of your paper there is not one word as to its authorship, not one word of appreciation, not a descriptive note. NOT ONE WORD. As you produce it, it is a ghost of a house—faint, half-hearted, as if the printer himself had been afraid to see the thing even in print.

And yet, as its architect, I can tell you, sir, that the thing was not created without a pang. That doorway and those chimneys, that gabled bay with the infernally tricky tiling—who, I ask you, could have brought them into being without an effort? Who could have thought of them but me? The piping harmonizing with the half-timbering, the dainty railings with their note caught up in the barge-board and ridge—is there another architect in the country who could have composed them with such restraint yet such fancy?—such complete mastery and so little force?

And my name is kept—blank. Blotto, obscure, as if the house had never been fathered, never been on a respectable drawing-board, never been built.

It has been built, sir! It has been erected in every county in the land. I have handed designs out to building societies and plumbers, it has been approved and caught up by district councils and wealthy brewers; for a small consideration I even consented to the plans being used as gift-wrappers for household soap.

I see no reason for the house being illustrated without my name. If it were thought that it is an affair too slight to have an author, I cannot concur. If it were that my style is now too individual and well known to need my name, I am flattered.

If it is a barefaced attempt to pinch my house for your trademark in place of old Inigo Jones's headpiece, may I tell you that in England designs like mine may soon be *protected*, and will not be filched from me without a fight.

HORATIO JAY

[Mr. Jay's house was reproduced by us without any idea of someone having deliberately designed it in cold blood. Certainly the author should be known.—ED., A. J.]

TRADITIONAL BUILDING MATERIALS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—The ordinary landowner knows a good house from a bad one when he sees it up and standing, but not when it is depicted by the prospective builder. The price of the individual house will not carry an architect's fee, and the landowner can only build to sell, and not (except in rare cases) to satisfy his own and his neighbour's aesthetic sense. When a new street or collection of artisans' houses is built, the whole is built to a scheme, and one sometimes sees quite happy results; but when land is being sold lot by lot each customer likes to have his own house built to his own taste. As each little house generally expresses at least three styles, the general effect of a collection of such houses is, to say the least, not restful to the eye. If it were economically possible for the landowner to build a number of houses, and then let them, the problem would be easier. A customer will give a paying price to own his house, but not to rent it. Take the case of a house which sells for £1,000. What tenant would give £75 a year—30s. a week—for it? I think the landowner must face the fact that the only house that "pays" to put up is the (approx.) th. and-pounder, and that he must build to sell, and, to a certain extent, to suit each customer. My own experience is that the builder says that his clients demand certain "features," and that the builder is not necessarily right. Is it not possible that all producers exaggerate the necessity of playing down to their public? that there is a public who appreciate, and will pay for,

better music, better pictures, better magazines, and better houses than one normally meets?

My belief is that the landowner with building land to sell has the remedy in his own hands. Let him seek the advice of a first-class architect on the general lines on which houses should be built on the land he has to sell, having particular regard to materials and colour, roofs, and windows. Having made up his mind as to what he wants to have built, let him dig in his toes, and say to the prospective builder: "These, and none other." He will doubtless miss a few sales at first, but I submit that he will gradually raise a colony of good and dignified small houses, and that the house-seeking public will realize that these are more desirable than other houses in the neighbourhood. Thus, by the exercise of a little patience his sites will become the fashion and he will at the same time have the satisfaction of leaving behind him an addition to the landscape of which he need not be ashamed.

J. B. PENNYMAN

THE NEW CARRERAS' BUILDING

Following are the names of the general contractors and some of the sub-contractors for the Carreras' new factory, Camden Town, illustrated on pages 736 to 743: Sir Robert McAlpine and Sons, principal contractors; Concrete Aggregates, Ltd., ballast and sand; The Tunnel Portland Cement Co., Ltd., Portland cement; The Tunnel Portland Cement Co., Ltd., and Lafarge Aluminous Cement Co., Ltd., rapid-hardening cement; The Whitehead Iron and Steel Co., Ltd., and Helical Bar and Engineering Co., reinforcement; Burn Bros., cast-iron pipes; Carrier Engineering Co., air-conditioning plant; Automatic Sprinkler Co., Ltd., sprinkler installation; Grano Metallic Paving and Plastering Co., Ltd., plasterwork; Adamite Co., Ltd., Atlas White cement; Art Pavements and Decorations, Ltd., decorative columns and lettering and decorative paving; Crittall Manufacturing Co., metal windows; Chatwood Safe Co., Ltd., strong-room doors; Val Kannel Revolving Door Co., revolving doors; Rippers, and S. Elliott and Sons, teak and other joinery; W. T. Allen & Co., cast-iron railings and staircase skylights; J. A. King & Co., Ltd., "Ferro Glass" lights; Davis, Bennett & Co., sanitary fittings; Poulton and Sons, firebrick lining to chimney; R. C. Cutting & Co., lightning conductor; J. A. King & Co., Ltd., patent glazing to north lights; Kleine Patent Fire-Resisting Flooring Syndicate, roof construction, staircase treads, etc.; Marryatt and Scott, lifts; Saml. Haskins and Bros., Ltd., and Kingsmill Art Metal and Electrical Co., decorative metalwork; Roberts Adlard & Co., wall and floor tiling; Hollis Bros. & Co., Ltd., maple and teak flooring; Limmer and Trinidad Lake Asphalt Co., Ltd., asphalt; Marryatt and Place, electric light wiring, etc.; Burt, Escare and Denelle, electric light fittings; Fenning & Co., Ltd., marble work; Gas Light and Coke Co., stoves; J. Kaye and Sons, Ltd., locks and door furniture; Scaffolding (Great Britain), Ltd., scaffolding; Redalon, Ltd., bulldog clips; W. T. Henley's Telegraph Work Co., Ltd., Henley Association grade cables; London Brick Co. and Forders, Ltd., "Phorpres" bricks; Woodward, Ltd., glazed brick and stoneware pipes; John Thompson (Wolverhampton), Ltd., boilers; Henry Hope and Sons, Ltd., front elevation windows; Lewis Berger and Sons, Ltd., factory paint; Pilkington Bros., Ltd., and Chance Bros. & Co., Ltd., glass; Robert Adams, floor springs; Parker, Winder and Achurch, Ltd., general ironmongery; Messrs. Consideré Constructions, Ltd., were consulting engineers.

The Autumn List issued by The Architectural Press of their new and forthcoming books is now ready, and will be sent on receipt of a post card addressed to the Publishers at 9 Queen Anne's Gate, Westminster, S.W.1.

COMPETITION CALENDAR

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

December 10. The Portland Cement Selling and Distributing Co., Ltd., announce a competition for architects, with prize awards totalling £500. Designs for a house costing £1,500 are called for, and the winning design will be erected at Olympia for the *Daily Mail* Ideal Home Exhibition, which opens on February 26, 1929. Assessors: Messrs. Ernest B. Glanfield, F.R.I.B.A.; Oswald P. Milne, F.R.I.B.A.; and Douglas Tanner. First prize, £250; second prize, £150; third prize, £100. Particulars from the Secretary, House Competition, Ship House, 20 Buckingham Gate, London, S.W.1.

December 31. Elementary School, West Bromwich. Competition open to architects resident in the United Kingdom. Assessor: Mr. Herbert T. Buckland, F.R.I.B.A. Premiums: £150, £100, and £50. Particulars from Director of Education, Education Offices, West Bromwich. Deposit £1 1s.

January 15. Municipal Buildings and Market Hall proposed to be erected on a site in Whitby Road, Ellesmere Port. Assessor: Mr. T. R. Milburn, F.R.I.B.A. Premiums: £100, £75, and £50. Particulars from the Clerk to the Council, Council Offices, Ellesmere Port. Deposit £1 1s.

February 15. Art Gallery to be erected in Christchurch, New Zealand, under the R. E. McDougall gift. Amount to be expended, £25,000. Competition in two stages. 1st stage: Pencil sketches from which will be selected by the assessor three designs, each of the authors to receive £100 honorarium. 2nd stage: The authors of the three selected designs to compete and the one adjudged the winner by the Jury of Award will be employed as architect. Open to all architects on the Register of the R.I.B.A. and all affiliated Institutions. Assessor: Mr. S. Hurst Seager, C.B.E., F.R.I.B.A. Jury of Award: the Dower; the Rev. J. K. Archer (who is present the Mayor of Christchurch); Mr. R. Wallwork, Director of the Canterbury College School of Art, Christchurch (and at present the President of the Canterbury Society of Arts); and the Assessor. Particulars from the Office of the High Commissioner for New Zealand, the Strand, London, or from Mr. J. S. Neville, Town Clerk, Christchurch, New Zealand.

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

The Architects' Registration Bill has, this session, been introduced in the House of Lords. Lord Crawford is sponsor for the measure, but there is little likelihood of its becoming law, in view of the pressure of Government business in Parliamentary time.

Mr. Wellock asked the Minister of Health if he was in a position to say whether the Government proposed to continue the housing subsidies at the existing rates after March 31 next?

Mr. Chamberlain said that the matter was engaging his attention, but he was not yet in a position to make a statement.

Mr. Chamberlain informed Mr. Wellock that the numbers of houses completed in connection with schemes under the Housing Acts of 1923 and 1924 during July, August, and September were 9,405, 9,903, and 12,984 respectively. The average prices of

those houses were not known, but the average prices of parlour and non-parlour houses respectively (excluding the cost of land and development) included in contracts let or in direct-labour schemes of local authorities started during each of these months were £434 and £366; £417 and £349; and £429 and £365. The number of houses under construction on November 1, 1928, was not yet known, but the number on October 1, 1928, was 56,673. During the twelve months ending September 30, 1927, 115,073 houses were completed under the Housing Act of 1923, and 97,316 under the Act of 1924. The corresponding figures for 1928 were 47,969 and 53,792 respectively.

ANNOUNCEMENTS

Mr. Fernand Billerey, architect, has moved to 19 Grosvenor Place, London, S.W.1. Telephone: Sloane 1585.

The Rev. Father L. C. Brooks, A.R.I.B.A., has been appointed curate-in-charge of St. Peter's, Whitley Bay.

Mr. Graham Doyle, P.A.S.I., chartered surveyor, has moved to 11 Suffolk Street, Pall Mall, S.W.1, at which address he will be pleased to receive trade catalogues. Telephone: Gerrard 0846.

Mr. John D. Clarke, F.R.I.B.A., of 25 Hyde Gardens, Eastbourne, has taken into partnership, Mr. A. F. de P. Worsfield, of Lewes, and in future the business of architects and surveyors will be carried on as before at 25 Hyde Gardens, Eastbourne, under the style of Messrs. John D. Clarke and Worsfield.

Mr. Leonard Monroe, A.R.I.B.A., who passed successfully through the Diploma Course of the Welsh School of Architecture at the Technical College, Cardiff, has just been appointed senior investigator to the Royal Commission on Ancient Monuments for Wales and Monmouthshire.

The committee of the Leplay House Educational Tours Association announce that for those interested in historical and social studies, a group will be going to Lisbon during the Christmas vacation, under the leadership of Mr. Barry Parker, F.R.I.B.A., vice-president of the Town Planning Institute. Burgos, Madrid and Toledo, and other places in Spain, are included in the itinerary. Further, Professor P. Geddes has again invited friends of Leplay House to go to Montpellier. A few days will be spent in visiting Avignon, Nîmes and other places of interest. Mr. G. Morris, B.Sc., will lead the group. For full particulars apply to Miss Margaret Tatton, F.R.G.S., Leplay House, 65 Belgrave Road, Westminster, S.W.1.

TRADE NOTES

The Leyland and Birmingham Rubber Co., Ltd., have moved their offices and warehouse to 111 Charing Cross Road, London, W.C.2. Telephone: Gerrard 0956 (four lines). Telegrams: Leyland, Westcent, London.

Messrs. Helliwell & Co., Ltd., of Brighouse, Yorks., manufacturers of patent glazing and steel casements, announce that their London office will be removed on December 1, from 11 Victoria Street, S.W.1, to 68 Victoria Street, S.W.1.

Exhaustive experiments carried out in the chemical research laboratories of Messrs. Norton and Gregory have resulted in an important discovery connected with mechanical plan copying—The Dazo Photoprinting Process. This has proved to be such a notable advance in the progress of photographic processes that the invention which has led out of it has been provisionally protected under British patent law. The significance of the discovery to architects lies in the fact that by its means an entirely new positive photoprinting process (known as the "Dazo") is available, which produces deep black lines on a clear background at a cost that only slightly exceeds the current charges for ordinary blue prints.

In addition to the cheapness of the process, it has the further advantage of dispensing with the need for a liquid developing bath. Development is both simple and rapid, and may be accomplished either with a sponge or by a special apparatus.

THE RURAL ENGLAND NUMBER

The demand for the Rural England Number of THE ARCHITECTS' JOURNAL has been so very heavy that in spite of a largely increased printing number it has already gone out of print. If any readers possess one or more copies, in reasonably good condition, which they can spare I should be grateful if they would return them to the publishers at 9 Queen Anne's Gate, who will be pleased to pay for them at the full published price and to defray the cost of postage.—THE EDITOR.

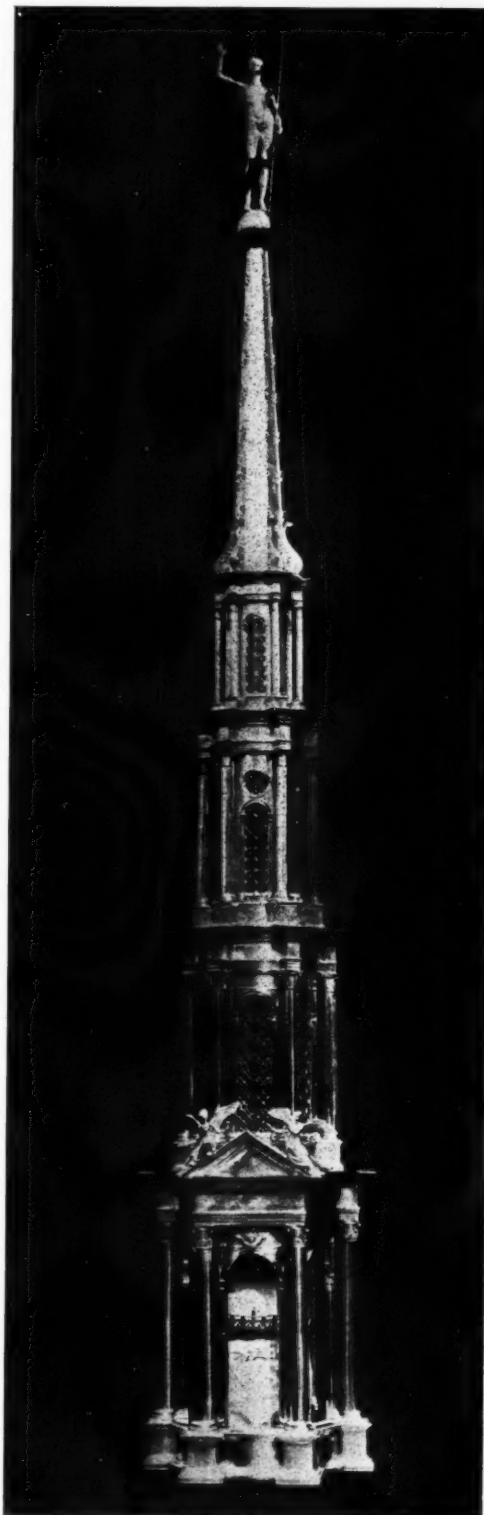
which can be obtained from the company. In either case the paper is so slightly damped by the developer that the finished print is dry enough to be immediately dispatched by post or handed to a waiting customer. Architects who possess their own printing frames will find that the customary exposure allowed for standard blue print paper is amply sufficient for the Dazo sensitized paper, which, it may be mentioned, is a good quality hard-surfaced cartridge, and takes colour particularly well.

During a recent demonstration of the process at the Company's London studio our representative satisfied himself of the fidelity and sharpness with which even the minutest details were rendered. It appeared also that the method is equally applicable to white cloth, which yielded especially good reproductions. Pencil drawings, too—whether on tracing paper or detail paper—gave results of a surprisingly high standard. The manufacturers state that Dazo paper retains its sensitiveness for many months, and that the prints will not fade or grow brittle with age.

We have received some interesting samples of Upson board and Upson processed fibre-tile. The former is for use as a substitute for plaster in the construction of walls, ceilings and partitions, and the latter is an alternative to wall tiles. Upson board is manufactured of fine spruce timber in large panels up to 16 ft. long, and is guaranteed, when properly applied, not to warp, crack or blister. It has a pebbled finished surface suitable for giving a stippled effect, and can be decorated with oil paint or water paint. The panels may be applied direct to the studs or joists in new construction, or right over old cracked plaster walls or ceilings. The board is fixed with an ingenious fastener, which does away with unsightly nail holes down the centre of the panels. These fasteners have prongs which anchor the panels invisibly from the back. The Upson fibre-tile is for the lining and decoration of walls of kitchens, bathrooms and other rooms in which a tile effect is desired. It is applied in a similar manner to the Upson board, and can be easily decorated to suit any taste; among the more popular colours are hyacinth blue, mallow yellow and foliage green. The tiles are made in two patterns—oblong, 1½ in. by 4 in., and square, 4 in. by 4 in., both styles being in panels 48 in. wide and from 6 ft. to 16 ft. long. The self-clinching fasteners are interesting and ingenious. They are used only for holding the centres of the panels. On each fastener is a slot for the nail on the intermediate studs, with a depression for the nail head about in the centre of the fastener. The fastener is slipped under the nail head, and the nail and the fastener is driven down tightly. The panel is then placed against the studs, and nails are driven across the top to hold the panel in place while driving the prongs of the fastener into the board. The board is then fastened by striking with two or three blows with a hammer. The edge is then nailed, and the board panel is ready for the application of the wood trim and decoration. The panels can be removed and replaced without damage if necessary to obtain access to wiring or plumbing. A panel of the board purchased in the open market has, it is claimed, successfully withstood practical tests as a non-conductor of heat and cold, as a moisture resister, and for strength and impact in the Robert W. Hunt Engineering Laboratories.

A tabernacle of silver was presented by his Grace the late Duke of Newcastle to All Saints' Church, Margaret Street, London, W., and was the last of his gifts to the church to which he was so devoted. The work consists of a canopy of silver, 8 ft. 6 in. high, surmounted by a figure of the risen Christ, and is fixed 6 ft. above the high altar. The inner tabernacle, which is used for containing the Holy Sacrament, is housed in the lowest tier of the canopy, and when access to it is desired, the tabernacle is lowered on to the altar and raised again by means of a specially designed electric hoist, which is controlled by a key. This hoist is of unusual interest by reason of the small size of the whole machine, which is completely self-contained and mounted inside the second tier of the canopy immediately above the inner tabernacle. A tiny electric motor is coupled to a small worm gear, which in turn drives a drum mounted on a vertical axis. The tabernacle was designed by Mr. J. N. Compers, of Norwood, and made in

Wellingborough by Mr. W. F. Knight. The hoist was designed and installed by Messrs. Smith, Major and Stevens, Ltd. (London and Northampton), manufacturers of the S.M.S. lift.



Tabernacle of silver, All Saints' Church, Margaret Street, W. By J. N. Compers.

THE WEEK'S BUILDING NEWS

Plans passed by the ILFORD Corporation: Twenty-four houses, Grangeway Gardens, for Messrs. Stoneley & Co.; roads and sewers, Mossford Green estate, for Mr. W. J. Hobbs; twelve shops and houses, Beehive Lane, for Messrs. F. W. Romain and Sons; two houses, Uphall Road, for Mr. F. J. Searley; alterations, Labour Hall, High Road, for Mr. F. F. Barbee; four houses, Canterbury Avenue, for Mr. A. P. Griggs; nineteen houses, Glenwood Gardens, for Messrs. A. Smith and Sons; sixty-three houses, Middleton Gardens and 25 Perth Road, for Suburban Developments (London), Ltd.; fourteen houses, Redbridge Lane, for Mr. P. T. Sawkins; alterations and additions, 754-756 Green Lane, for Mr. G. Hamblyn Fox; additions for United Dairies, Ltd., 275 High Road, for Mr. F. T. Dear; alterations and additions, Ilford Conservative Club, High Road, for Messrs. Dawson and Allardyce.

Plans passed by the SMETHWICK Corporation: Cinema, Brasshouse Lane, for Mr. Percy Dyche, of 44 Vernon Road, Birmingham; parochial hall, Wigorn Road, for St. Gregory's Church trustees; four houses, High Road, for Mr. S. W. Lloyd; ten houses, Woodlands Road, for Messrs. W. C. Stevens, Ltd.; works extensions, Oldbury Road, for Messrs. Chance Bros. & Co., Ltd.; offices, Foundry Lane, for Morris Commercial Cars, Ltd.; vicarage, Smethwick Old Church, for trustees.

Plans passed by the WIMBLEDON Corporation: House, Holme Park Road, for Messrs. H. Coombe and Sons; house, Bathgate Road, for Mr. J. S. Brocklesby; two houses, Dunstall Road, for Mr. S. Derwent; showrooms, offices, and flats, Coombe Lane, for Mr. G. Smith; house, Holme Park Road, for Mr. M. G. Hazell; alterations, 110 The Roadway, for Messrs. Freeman, Hardy and Willis, Ltd.; seven shops and houses and four lock-up shops, Durnsford Road, for Messrs. G. W. Beattie, Ltd.

Plans passed by the BARKING TOWN U.D.C.: Fourteen houses, Bamber Road, for Messrs. A. Glenny and Son; alterations, "Spotted Dog" public-house, for Messrs. Courage & Co., Ltd.; new street, Wilmington Gardens, for Messrs. Rawlins, Culver & Co.; stores, Highbridge Road, for Mr. R. M. Hewett.

Plans passed by the OLDHAM Corporation: Twenty-six houses, Merton Avenue, for Mr. W. Makin; extensions, Marsland Mills, Green Street, for Messrs. Kirkman and Mannock, Ltd.; four-story workshop, Greenbank Mills, for Messrs. Lees and Wrigley, Ltd.; four houses, Manley Road, for Mr. H. Partington; alterations, Market Place, for Yorkshire Penny Bank, Ltd.; alterations, Prince of Wales Hotel, Heywood Street, for Rochdale and Manor Brewery, Ltd.

Plans passed by the PORTSMOUTH Corporation: Twelve houses and one shop, Torrington Road, for Messrs. Weaver Bros.; additions, Royal Seamen and Marines Orphanage, St. Michaels Road, for governors; ten houses, Torrington Road, for Mr. C. M. Searley; extensions for Portsmouth Commercial Motors, at Goldsmith Avenue, for Mr. H. Reynolds; twenty-seven houses, off Hayling Avenue, for Messrs. McCarthy Bros.; twenty-eight houses, Gatcombe Avenue, for Mr. S. Brittan; four houses, Pervin Road, for Mr. H. E. Pitt; two houses, St. Matthews Road, for Mr. P. T. Price.

Plans passed by the TYNEMOUTH Corporation: Eight houses, Hatherton Avenue, for Messrs. F. R. N. Haswell and Son; alterations for National Provincial Bank, Bedford Street, for Messrs. F. R. N. Haswell and Son; alterations, 7 Trevor Terrace, for Mr. F. W. Newby; eight houses, Hatherton Avenue, for Mr. J. R. Wallace; fourteen houses, Lilburn Street, for Messrs. Hays and Gray; thirty-four houses, Mast Lane estate, for Mr. W. Stockdale; layout of Ingleside estate, for Mr. A. K. Tasker.

Messrs. Grainger and Leathart, the architects for Joseph Mears's Twickenham Cinema, have now completed the plans for the new RICHMOND Super Cinema, which they will build for Mr. Mears on the site facing Richmond Bridge, at present occupied by Talbot House. It will seat 2,000.

In view of the Charing Cross Bridge scheme, the L.C.C. has found it advisable to amend the elevation of the LONDON County Hall extension to meet the changed conditions which will arise.

Plans passed by the EASTBOURNE Corporation: Alterations, Albert Parade, for Maypole Dairy Co.; eight houses, Dillingburgh Road, for Mr. A. Ford, architect; two houses, Brampton Road, for Messrs. A. W. Kennet Bros.; four houses, Brampton Road, for Mr. D. Wood, architect; alterations and additions for Messrs. Sainsbury, Ltd., Terminus Road, for Messrs. Wood and Rose, architects; alterations, Grand Hotel, Grand Parade, for Messrs. G. Bainbridge and Sons; four houses, Victoria Drive, for Messrs. P. D. Stoneham and Son, architects; six houses, St. Anthony's Avenue, for Mr. S. G. Scales, architect; two shops and flats, Meads Street, for Messrs. Stoneham and Son; eight houses, for Artizans' Dwellings Co., at Glynde Avenue, for Mr. A. Ford.

The GLASGOW Education Committee has acquired another site on the Knightswood housing estate for the erection of an elementary school.

Plans passed by the HULL Corporation: Cinema, Beverley Road and Rhyde Street, for Eureka Picture Hall, Ltd.; alterations, 93 Prospect Street, for Messrs. Jordan & Co. (Hull), Ltd.

The ILKESTON Corporation has appointed a subcommittee to consider plans for increasing the office accommodation at the Town Hall.

Plans passed by the ILKESTON Corporation: Additions to factory, Awsworth Road, for Messrs. A. Booth and Sons; house, Heanor Road, for Mr. J. Cooper; alterations, premises in Bath Street, for Messrs. Jackson Bros.; house, Heanor Road, for Mr. W. J. Lawrence; store, Corporation Road, for Mr. S. J. Riley.

Plans passed by the CHESTERFIELD Corporation: Bakery and store, Whittington Hill, for Mr. J. W. Thompson; two houses, Langer Lane, for Messrs. Heath & Co.; house, Mansfield Road, for Hasland Garage, Ltd.; four houses, Langer Lane, for Mr. A. Richmond.

The Notts County Highways Committee recommends the construction of a new bridge over the railway at COLWICK at a cost of £28,000.

Plans passed by the COULSDON U.D.C.: Two houses, Coulsdon Rise, for Mr. H. C. Dodrell; house, Hartley Old Road, for Mr. J. Redpath; twenty-two houses, off Chistead Valley Road, for Messrs. Chester and Hopkins; six houses, off Bradmore Way, for Mr. H. A. Hollands; twenty houses, Fairdene Road, for Messrs. W. Cottage, Ltd.; house, Coulsdon Road, for Mr. W. L. Seany; house, Byron Avenue, for Mr. E. J. Penn.

Plans passed at SANDERSTEAD: 136 houses, Selsdon estate, for Walton Heath Land Co.; two houses, Purley Downs Road, for Mr. H. P. Hawkes; house, The Ridgeway, for Mr. G. J. Glazier; street extension, Littleheath Road, for Messrs. Richard Costain and Sons; two houses, Briton Crescent, for Mr. H. P. Hawkes; two houses, Kingswood Road, for Mr. E. Gower.

The ROTHERHAM Corporation has purchased 8 acres for the extension of the Herringthorpe housing estate.

The SUNDERLAND Rural District Council is to erect twenty houses at Ford; fifty at Hylton; fifty at Ryhope; and 110 at Tunstall.

Messrs. J. W. Cameron & Co., Ltd., are to erect a large hotel on the main road at BILLINGTON, County Durham.

The BRIGHTON Corporation has agreed to grant the subsidy in respect of thirty houses to be erected in Canfield Road and Carlisle Avenue by Mr. W. F. Andrews on behalf of Messrs. Braybors, Ltd.

The BRIGHTON Corporation is to undertake waterworks at Patcham at a cost of £45,000.

The BRIGHTON Corporation has obtained sanction for a loan of £22,000 for the demolition and reconstruction of Nos. 177 and 178 Western Road.

Messrs. Paish, Tyler and Crump are to erect twenty-one houses in Eldon Avenue and Shirley Road, CROYDON.

Plans passed by the BRISTOL Corporation: Sixteen houses, Fitzgerald Road, for Mr. E. A. W. Poole; eight houses, Lullington Road, for Mr. C. Malone; two houses, Talbot Avenue, for Mr. F. Hiscox; four houses, Talbot Avenue, for Mr. W. A. Salter; two houses, Wee Lane, for Messrs. Powell and Giles.

Plans passed by the REDDITCH U.D.C.: Two houses, Charles Street, for Mr. H. E. Quinney; four houses, Salop Road, for Mr. E. L. Lewis; bungalow, Plymouth Road, for Miss Hughes; twelve houses, Hewell Road, for U.D.C.

Plans passed by the DUDLEY Corporation: Additions, Ivy House, Brewery Street, for Wolverhampton and Dudley Breweries, Ltd.; twelve houses, St. James Road, for Messrs. A. J. Crump and Sons; alterations, Three Swans Inn, High Street, for Wolverhampton and Dudley Breweries, Ltd.; offices, Hall Street, for Dudley Co-operative Society.

The Ministry of Health has held an inquiry into the scheme of the DUDLEY Corporation for the clearance of the Birmingham Street slum area.

The DUDLEY Corporation has agreed to the layout of the Bowling-Green housing site, Netherton, for the erection of 125 houses.

The YORK Corporation has agreed to the layout of the new housing estate for the erection of 138 houses, and it is suggested that the houses should be of the all-electric type.

The YORK Corporation Housing Committee has decided to erect another twenty-two houses on the Glen Road estate.

The Metropolitan Asylums Board is to provide a new nurses' home at the DARENT training colony at a cost of £40,000; alter cubicles at a cost of £750; and increase the school accommodation at a cost of £2,415.

The Herts C.C. is to enlarge the Hill End Mental Hospital, ST. ALBANS, to provide accommodation for 400 additional patients in accordance with plans prepared by Mr. H. Carter Pegg.

The Herts C.C. is to prepare a scheme for the erection of a maternity home at WATFORD at an estimated cost of £10,000.

The city engineer of YORK has prepared a layout of the Burton Stone estate, providing for the erection of 510 houses, and it is proposed to erect 114 of these at once.

The Herts Education Committee has approved plans prepared by Mr. S. Dawe, the architect engaged by the governors, for the extension of the WATFORD Girls' Grammar School at an estimated cost of £26,678.

The HERTS Education Committee has approved plans of the county surveyor for the erection of an elementary school on the Garston site at WATFORD for 412 scholars at an estimated cost of £17,350.

The Herts Education Committee has given provisional approval to a scheme prepared by the governors for extensions at the HITCHIN Boys' Grammar School at a cost of £34,000.

Messrs. Walker and Harwood, architects, are to erect a village institute at RADLETT, Herts.

The CHELMSFORD Corporation has approved plans for the erection of another 100 houses on the Boarded Barns estate, and will obtain tenders as soon as loan sanction is secured.

The TYNEMOUTH Corporation has passed plans submitted by Messrs. A. and E. Brannen for the erection of twenty-four houses on the Corporation estate at Cullercoats.

Plans passed by the YORK Corporation: Additions, The Malt Kiln, The Crescent, for Messrs. J. J. Hunt, Ltd.; two houses, Finsbury Avenue, for Mr. W. Johnson; two houses, Bootham Crescent, for Messrs. Hy. Colman and Sons, Ltd.; house, Hobgate, for Mr. A. Finney; alterations, 5 High Oosegate, for Messrs. Stead and Simpson; alterations, Lido Café, Blake Street, for Mr. G. Picken; additions, 12 Thomas Street, for Mr. W. Swann; classrooms, Lord Mayor's Walk, for Archbishop Holgate's School.

Plans passed by the BLYTH Corporation: Shops, Coomassie Road, for Messrs. T. S. Hedley and Sons; alterations, Central Cinema, for Mr. T. J. Stephenson; four houses, Plessey Road, for Mr. A. Best; two bungalows, Twenty-fourth Avenue, for Messrs. Pattison and Hush.

Plans passed by the HASTINGS Corporation: Shop, Old London Road, for Mr. L. Towner, architect; bungalow, Battle Road, for Messrs. Eldridge and Cruttenden; twelve houses, Bexhill Road, for Messrs. H. Ward and Son, architects; two houses, Braybrooke Road, for Mr. H. M. Jeffery, architect; alterations, operating theatre, Poor Law Infirmary, for Mr. H. W. Coussens, architect; two houses, Elphinstone Avenue, for Mr. H. M. Jeffery; additions, Beachwood, Baldslow Road, for Mr. H. Burleigh, architect.

The L.C.C. Education Committee has acquired a site at WANDSWORTH for the erection of a girls' secondary school.

The Kent Education Committee is to proceed with the erection of two elementary schools in Wickham Street and Woolwich Road, BEXLEY.

Plans passed by the GUILDFORD Corporation: Layout of Stoke Old Rectory estate, for Messrs. Folker and Horton; fourteen houses, Woodland Road, for Mr. H. Ashenden; hall, Lea Pale Road, for Mr. L. Pimm; new operating block, Royal Surrey County Hospital, Farnham Road, for governors; eight houses, Old Farm Road, for Mr. W. R. Stirling; workshop and store, Worpleston Road, for Messrs. Mason and Toogood.

The GUILDFORD Corporation is to erect electricity sub-stations at Shere, Aldbury, Wonerh, and Shalford.

Plans passed by the SWANSCOMBE U.D.C.: Fitting-shop, Greenhythe, for Messrs. F. T. Everards and Sons, Ltd.; parish room, High Street, for Rev. E. Allen; slurry pipe from Alkerden Lane to Johnson's Works, for Associated Portland Cement Manufacturers, Ltd.

Plans passed by the ROTHERHAM Corporation: Four houses, Broom Lane, for Mr. Garvin Bilton; reconstruction, premises in Bridegate, for Messrs. E. Russum and Sons; stores, Alsing Road, for Messrs. Howell & Co., Ltd.; house, Old Wortley Road, for Mr. Geo. Fitchett; two houses, Broom Crescent, for Mr. W. F. Gracie; business premises, South Street, for Rotherham Co-operative Society, Ltd.; two houses, Treherne Road, for Mr. G. W. Lancaster.

Plans passed by the FINCHLEY U.D.C.: Two houses, Essex Park, for Mr. A. Ibbetson; seventeen houses, Maurice Walk, for Mr. G. C. Swanson; store and ten garages, High Road, Whetstone, for Mr. C. Betts; two houses, Hill Rise, for Mr. G. C. Swanson; alterations, De Dion Bouton Motor Works, High Road, Whetstone, for Mr. W. Miller; stores and ten garages, Long Lane, for Mr. R. Williams; laundry, High Road, North Finchley, for Advance Laundries, Ltd.

RATES OF WAGES

			I		II					I		II				
			s. d.	s. d.	s. d.	s. d.				s. d.	s. d.	s. d.	s. d.			
A	ABERDARE	S. Wales & M.	1 7	1 2	1 7	1 2	A	E. Glamorgan	S. Wales & M.	1 7	1 2	A	NANTWICH	N.W. Counties	1 6	1 1
A	Aberavenny	S. Wales & M.	1 7	1 2	1 7	1 2	A	Glanmorganshire	S. Wales & M.	1 7	1 2	A	Neath	S. Wales & M.	1 7	1 2
B	Abingdon	S. Counties	1 5	1 1	1 5	1 1	B	Exeter	S.W. Counties	1 5	1 1	A	Nelson	N.W. Counties	1 7	1 2
A	Accrington	N.W. Counties	1 7	1 2	1 7	1 2	B	Exmouth	S.W. Counties	1 4	1 0	A	Newcastle	N.E. Coast	1 7	1 2
A	Addlestone	S. Counties	1 6	1 1	1 6	1 1	B	FELIXSTOWE	E. Counties	1 5	1 1	A	Normanton	S. Wales & M.	1 7	1 2
A	Adlington	N.W. Counties	1 7	1 2	1 7	1 2	A	Filey	Yorks	1 6	1 1	A	Northampton	Yorkshire	1 7	1 2
A	Aldrie	Scotland	1 7	1 2	1 7	1 2	A	Fleetwood	N.W. Counties	1 7	1 2	A	North Staffs.	Mid. Counties	1 7	1 2
C	Aldeburgh	E. Counties	1 3	1 1	1 3	1 1	A	Folkestone	S. Counties	1 4	1 0	A	North Shields	N.E. Coast	1 7	1 2
A	Altrincham	N.W. Counties	1 7	1 2	1 7	1 2	A	Frome	N.W. Counties	1 7	1 2	A	Norwich	E. Counties	1 6	1 1
B	Appleby	N.W. Counties	1 4	1 0	1 4	1 0	A	Gateshead	N.E. Coast	1 7	1 2	A	Nottingham	Mid. Counties	1 7	1 2
A	Ashton-under-Lyne	N.W. Counties	1 7	1 2	1 7	1 2	A	Gillingham	S. Counties	1 5	1 1	A	Nuneaton	Mid. Counties	1 7	1 2
A	Atherstone	Mid. Counties	1 6	1 1	1 6	1 1	A	Gloucester	S.W. Counties	1 6	1 1	B	OAKHAM	Mid. Counties	1 5	1 1
B	Aylesbury	S. Counties	1 4	1 0	1 4	1 0	A	Goole	Yorkshire	1 6	1 1	A	Oldham	N.W. Counties	1 7	1 2
B	BANBURY	S. Counties	1 4	1 0	1 4	1 0	A	Gosport	S. Counties	1 5	1 1	B	Oswestry	Mid. Counties	1 6	1 1
B	Bangor	N.W. Counties	1 7	1 2	1 7	1 2	A	Grantham	Mid. Counties	1 6	1 1	B	Oxford	S. Counties	1 6	1 1
A	Barnard Castle	N.E. Coast	1 7	1 2	1 7	1 2	A	Greenock	S. Counties	1 7	1 2	C	PAISLEY	Scotland	1 7	1 2
A	Barnsley	Yorkshire	1 7	1 2	1 7	1 2	A	Grimaby	Yorkshire	1 7	1 2	A	Pembroke	S. Wales & M.	1 3	1 1
A	Barnstaple	S.W. Counties	1 5	1 1	1 5	1 1	A	Guildford	S. Counties	1 5	1 1	A	Perth	Scotland	1 7	1 2
A	Barrow	N.W. Counties	1 7	1 2	1 7	1 2	A	Halifax	Yorkshire	1 7	1 2	A	Peterborough	Mid. Counties	1 6	1 1
A	Barry	S. Wales & M.	1 7	1 2	1 7	1 2	A	Hanley	Mid. Counties	1 7	1 2	A	Plymouth	S.W. Counties	1 7	1 2
B	Basingstoke	S.W. Counties	1 4	1 0	1 4	1 0	A	Harrowgate	Yorkshire	1 7	1 2	A	Pontefract	Yorkshire	1 7	1 2
B	Bath	S.W. Counties	1 7	1 2	1 7	1 2	A	Hartlepool	N.E. Coast	1 7	1 2	B	Portsmouth	S. Wales & M.	1 7	1 2
A	Batley	Yorkshire	1 5	1 1	1 5	1 1	A	Hastings	S. Counties	1 4	1 0	A	Preston	N.W. Counties	1 7	1 2
B	Bedford	E. Counties	1 5	1 1	1 5	1 1	A	Hatfield	S. Counties	1 6	1 1	A	QUEENS-FERRY	N.W. Counties	1 7	1 2
A	Berwick-on-Tweed	N.E. Coast	1 6	1 1	1 6	1 1	B	Hereford	S. Counties	1 6	1 1	A	READING	S. Counties	1 6	1 1
A	Bewdley	Mid. Counties	1 6	1 1	1 6	1 1	B	Hertford	S. W. Counties	1 5	1 1	B	Reigate	S. Counties	1 5	1 1
B	Bicester	Mid. Counties	1 4	1 0	1 4	1 0	A	Heysham	N.W. Counties	1 7	1 2	A	Retford	Mid. Counties	1 6	1 1
A	Birkenhead	N.W. Counties	1 7	1 2	1 7	1 2	A	Howden	N.E. Coast	1 7	1 2	A	Rhondda Valley	S. Wales & M.	1 7	1 2
A	Birmingham	Mid. Counties	1 7	1 2	1 7	1 2	A	Huddersfield	Yorkshire	1 7	1 2	A	Ripon	Yorkshire	1 6	1 1
A	Bishop Auckland	N.E. Coast	1 7	1 2	1 7	1 2	A	Hull	Yorkshire	1 7	1 2	A	Rochdale	N.W. Counties	1 7	1 2
A	Blackburn	N.W. Counties	1 7	1 2	1 7	1 2	The initial letter opposite each entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.									
A	Blackpool	N.W. Counties	1 7	1 2	1 7	1 2	A	Ilkley	Yorkshire	1 7	1 2	A	Scarborough	Yorkshire	1 7	1 2
A	Blyth	N.E. Coast	1 7	1 2	1 7	1 2	B	Immingham	Mid. Counties	1 7	1 2	A	Scunthorpe	Yorkshire	1 7	1 2
A	Bognor	N.W. Counties	1 7	1 2	1 7	1 2	B	Ipswich	E. Counties	1 5	1 1	A	Sheffield	Yorkshire	1 7	1 2
A	Bolton	N.W. Counties	1 7	1 2	1 7	1 2	C	Isle of Wight	S. Counties	1 3	1 1	A	Shipley	Yorkshire	1 7	1 2
A	Boston	Mid. Counties	1 6	1 1	1 6	1 1	A	JARROW	N.E. Coast	1 7	1 2	A	Shrewsbury	Mid. Counties	1 6	1 1
B	Bournemouth	S. Counties	1 5	1 1	1 5	1 1	A	KEIGHLEY	Yorkshire	1 7	1 2	A	Skipton	Yorkshire	1 6	1 1
B	Bovey Tracey	S.W. Counties	1 5	1 1	1 5	1 1	B	Kendal	N.W. Counties	1 5	1 1	A	Slough	S. Counties	1 6	1 1
A	Bradford	Yorkshire	1 7	1 2	1 7	1 2	A	Keswick	N.W. Counties	1 5	1 1	A	Solihull	Mid. Counties	1 6	1 1
A	Brentwood	E. Counties	1 6	1 1	1 6	1 1	B	Kettering	Mid. Counties	1 6	1 1	A	South'pton	S. Counties	1 6	1 1
A	Bridgend	S. Wales & M.	1 7	1 2	1 7	1 2	A	Kidderminster	Mid. Counties	1 6	1 1	A	Southend-on-Sea	E. Counties	1 6	1 1
A	Bridgewater	S.W. Counties	1 4	1 0	1 4	1 0	B	King's Lynn	E. Counties	1 4	1 0	A	Southport	N.W. Counties	1 7	1 2
A	Bridlington	Yorkshire	1 7	1 2	1 7	1 2	A	LANCASTER	N.W. Counties	1 7	1 2	A	S. Shields	N.E. Coast	1 7	1 2
A	Brighouse	Yorkshire	1 7	1 2	1 7	1 2	A	Leamington	Mid. Counties	1 6	1 1	A	Stafford	Mid. Counties	1 6	1 1
B	Brighton	S. Counties	1 5	1 1	1 5	1 1	A	Leeds	Yorkshire	1 7	1 2	A	Stockport	N.W. Counties	1 6	1 1
A	Bristol	S.W. Counties	1 7	1 2	1 7	1 2	A	Leek	Mid. Counties	1 7	1 2	A	Stockton-on-Tees	N.E. Coast	1 7	1 2
A	Brixham	S.W. Counties	1 7	1 2	1 7	1 2	A	Leicester	Mid. Counties	1 7	1 2	B	Stoke-on-Trent	Mid. Counties	1 7	1 2
A	Bromsgrove	Mid. Counties	1 6	1 1	1 6	1 1	A	Leigh	N.W. Counties	1 7	1 2	A	Stroud	S.W. Counties	1 5	1 1
C	Bromyard	Mid. Counties	1 3	1 1	1 3	1 1	B	Lewes	S. Counties	1 4	1 0	A	Sunderland	N.E. Coast	1 5	1 1
A	Burnley	N.W. Counties	1 7	1 2	1 7	1 2	A	Lichfield	Mid. Counties	1 6	1 1	A	Swadlincote	Mid. Counties	1 7	1 2
A	Burslem	Mid. Counties	1 7	1 2	1 7	1 2	A	Lincoln	N.W. Counties	1 7	1 2	A	Swansea	S. Wales & M.	1 7	1 2
A	Burton-on-Trent	Mid. Counties	1 6	1 1	1 6	1 1	A	Liverpool	N.W. Counties	1 7	1 2	B	Swindon	S.W. Counties	1 5	1 1
A	Bury	N.W. Counties	1 7	1 2	1 7	1 2	A	Llandudno	N.W. Counties	1 6	1 1	B	TAMWORTH	N.W. Counties	1 7	1 2
A	Buxton	N.W. Counties	1 7	1 2	1 7	1 2	A	Llanelli	S. Wales & M.	1 7	1 2	B	Taunton	S.W. Counties	1 5	1 1
B	CAMBRIDGE	E. Counties	1 5	1 1	1 5	1 1	A	London (12-15 miles radius)		1 9	1 4	B	Teignmouth	N.E. Coast	1 7	1 2
B	Canterbury	S. Counties	1 4	1 0	1 4	1 0	A	Long Eaton	Mid. Counties	1 8	1 3	A	Todmorden	Yorkshire	1 5	1 1
A	Cardiff	S. Wales & M.	1 7	1 2	1 7	1 2	A	Loughborough	Mid. Counties	1 7	1 2	A	Torquay	S.W. Counties	1 7	1 2
A	Carlisle	N.W. Counties	1 7	1 2	1 7	1 2	A	Luton	E. Counties	1 6	1 1	C	Truro	S.W. Counties	1 3	1 1
B	Carmarthen	S. Wales & M.	1 7	1 2	1 7	1 2	A	Lytham	N.W. Counties	1 7	1 2	B	Tunbridge Wells	S. Counties	1 5	1 1
B	Carnarvon	N.W. Counties	1 5	1 1	1 5	1 1	A	MACCLESFIELD	N.W. Counties	1 7	1 2	A	Tunstall	Mid. Counties	1 7	1 2
A	Carmarthen	N.W. Counties	1 5	1 1	1 5	1 1	A	Maidstone	S. Counties	1 5	1 1	A	Tyne District	N.E. Coast	1 7	1 2
A	Castleford	S. Counties	1 5	1 1	1 5	1 1	A	Malvern	Mid. Counties	1 6	1 1	A	WAKEFIELD	Yorkshire	1 7	1 2
A	Chatham	S.W. Counties	1 6	1 1	1 6	1 1	A	Mansfield	Mid. Counties	1 7	1 2	A	Walsall	Mid. Counties	1 7	1 2
B	Chelmsford	N.W. Counties	1 7	1 2	1 7	1 2	B	Margate	S. Counties	1 7	1 2	A	Warwick	Mid. Counties	1 6	1 1
A	Cheltenham	S.W. Counties	1 6	1 1	1 6	1 1	A	Matlock	Mid. Counties	1 6	1 1	A	Wellingborough	Mid. Counties	1 6	1 1
A	Chesham	N.W. Counties	1 7	1 2	1 7	1 2	A	Merthyr	S. Wales & M.	1 7	1 2	A	West Bromwich	Mid. Counties	1 7	1 2
A	Chesham	Mid. Counties	1 7	1 2	1 7	1 2	A	Middlesbrough	N.E. Coast	1 7	1 2	B	Weston-s-Mare	S.W. Counties	1 5	1 1
A	Chichester	S. Counties	1 4	1 0	1 4	1 0	A	Middlewich	N.W. Counties	1 6	1 1	A	Whitby	Yorkshire	1 5	1 1
A	Chorley	N.W. Counties	1 7	1 2	1 7	1 2	A	Minhead	S.W. Counties	1 4	1 0	A	Widnes	N.W. Counties	1 7	1 2
A	Cirencester	S. Counties	1 4	1 0	1 4	1 0	A	Monmouth	S. Wales & M.	1 7	1 2	A	Wigan	N.W. Counties	1 7	1 2
A	Cleethorpe	N.W. Counties	1 7	1 2	1 7	1 2	A	Morganshire	S. Wales & M.	1 7	1 2	B	Winchester	S. Counties	1 4	1 0
A	Clydebank	N.W. Counties	1 7	1 2	1 7	1 2	A	Morcambe	N.W. Counties	1 7	1 2	A	Windsor	S. Counties	1 6	1 1
A	Coalville	Mid. Counties	1 7	1 2	1 7	1 2	A	Middlewich	N.W. Counties	1 6	1 1	A	Wolverhampton	Mid. Counties	1 7	1 2
B	Colchester	E. Counties	1 7	1 2	1 7	1 2	A	Middlewich	N.W. Counties	1 6	1 1	A	Worcester	Mid. Counties	1 6	1 1
A	Colne	N.W. Counties	1 5	1 1	1 5	1 1	A	Middlewich	N.W. Counties	1 6	1 1	A	Workop	Yorkshire	1 6	1 1
A	Colwyn Bay	N.W. Counties	1 6	1 1	1 6	1 1	A	Middlewich	N.W. Counties	1 6	1 1	A	Wrexham	N.W. Counties	1 7	1 2
A	Consett	N.E. Coast	1 7	1 2	1 7	1 2	A	Middlewich	N.W. Counties	1 6	1 1	B	Wycombe	S. Counties	1 5	1 1
A	Conway	N.W. Counties	1 6	1 1	1 6	1 1	A	Middlewich	N.W. Counties	1 6	1 1	B	YARMOUTH	E. Counties	1 5	1 1
A	Covey	Mid. Counties	1 7	1 2	1 7	1 2	A	Middlewich	N.W. Counties	1 6	1 1	B</				

PRICES CURRENT

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4d. per hour; LABOURER, 1s. 4d. per hour; NAVY, 1s. 4d. per hour; TIMBERMAN, 1s. 5d. 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
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 cuts 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., do. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.	0 0 5
If left in, add to above prices, per ft. cube	0 2 0
HARDWARE, 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 yd. 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. 5d. 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
Do. 9 in., per yd.	0 10 0
Portland cement and sand, see "Excavator" above.	
Lead-pipe per cut.	£2 0 0
Gaskin, per lb.	0 0 4

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 3 1/2 in., per M.	12 0 6
Staffordshire blue, per M.	9 10 0
Firebricks, 2 1/2 in., per M.	11 3 0
Glazed soil, white, and ivory stretchers, per M.	24 10 0
Do. headers, per M.	24 0 0
Colours, extra, per M.	5 10 0
Seconds, less, per M.	1 0 0
Cement and sand, see "Excavator" above.	
Lime, grey stone, per ton	2 17 0
Mixed lime mortar, per yd.	1 6 0
Damp course, in rolls of 4 1/2 in., per roll	0 2 6
Do. 9 in. per roll	0 4 9
Do. 14 in. per roll	0 7 6
Do. 18 in. per roll	0 9 6

BRICKWORK in stone lime mortar, Flettons or equal, per rod	£33 0 0
Do. in cement do., per rod	36 0 0
Do. in stocks, add 35 per cent. per rod.	
Do. in blues, add 100 per cent. per rod.	
Do. circular on plan, add 12 1/2 per cent. per rod.	
Do. in backing to masonry, add 12 1/2 per cent. per rod.	
Do. in raising on old walls, etc., add 12 1/2 per cent. per rod.	
DO. in underpinning, add 20 per cent. per rod.	
HALF-BRICK walls in stocks in cement mortar (1-3), per ft. sup.	£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 2 1/2 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 planing 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. 1 1/2 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 sullies, each	0 1 6
BITUMINOUS DAMP COURSE, ex rolls, per ft. sup.	0 0 7
ASPHALT (MASTIC) DAMP COURSE, 1 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, 1 in., per yd.	0 8 6
Do. SKIRTING, 6 in.	0 0 11
BREEZE PARTITION BLOCKS, set in cement, 1 1/2 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. 2 1/2 in., per yd. super	0 6 6
York templates saven, 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, 12 1/2 per cent.	
Deduct for Bath, 33 1/2 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. in.	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. 2 1/2 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. x 12 in.	£42 11 3
20 in. x 10 in.	31 4 3
16 in. x 10 in.	20 18 0
14 in. x 8 in.	12 1 0
Green Raudoms, per ton	8 3 9
Grey-green do., per ton	7 3 9
Green pebbles, 12 in. to 8 in. long, per ton	5 13 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 cut.	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. Peppies, 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.	
24 in. x 12 in.	£5 0 0
20 in. x 10 in.	5 5 0
16 in. x 10 in.	4 15 0
14 in. x 8 in.	4 10 0
Green randoms	6 7 0
Grey-green do.	5 9 0
Green pebbles, 12 in. to 8 in. long	4 13 6
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 x 3, per std.	£21 0 0
11 x 4, per std.	33 0 0
Memel or Equal. Slightly less than foregoing.	
Flooring, F.E., 1 in., per sq.	£1 2 6
Do. T. and G., 1 in., per sq.	1 2 6
Planned boards, 1 in. x 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 33 1/2 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, 4 1/2 in. wide, per ft. run	0 0 4
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 firings to falls, per square	2 10 0
STOUT feather-edge 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, 1 in. thick and fillets nailed to sides of joists (joists measured over), per square	2 0 0
RUBBEROID or similar quality roofing, one ply, per yd. sup.	0 2 3
DO., two-ply, per yd. sup.	0 2 6
DO., three-ply, per yd. sup.	0 3 0
TONGUED and grooved flooring, 1 1/2 in. thick, laid complete with splayed headings, per square	2 5 0
DEAL skirting torus, moulded 1 1/2 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., 1 1/2 in. thick, per yd. sup.	0 12 0
Maple 1 1/2 in. thick, per yd. sup.	0 15 0
DEAL moulded sashes, 1 1/2 in. with moulded bars in small squares, per ft. sup.	0 2 6
DO. 2 in. do., per ft. sup.	0 2 9
DEAL eased 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, 1 1/2 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. x 3 in., rebated and beaded, per ft. cube	£0 15 0
Add for extra labour, per ft. run	0 0 1
STAIRCASE work:	
DEAL treads 1 1/2 in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0 2 6
DEAL wall strings, 1 1/2 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
4 in. x 3 in. oak fully moulded handrail, per ft. run	0 5 6
1 1/2 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
1 1/2 in. beaded cupboard fronts, moulded and square, per ft. sup.	0 2 9
TEAK grooved draining boards, 1 1/2 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 1s. 9 1/2d. per hour;
MATE, do. 1s. 4d. per hour; ERECTOR, 1s. 9 1/2d. per hour; FITTER, 1s. 9 1/2d. per hour; LABOURER, 1s. 4d. per hour.

Mild Steel in British standard sections, per ton	£12 10 0
Sheet Steel:	
Flat sheets, black, per ton	17 0 0
DO., galv., per ton	19 0 0
Corrugated sheets, galv., per ton	18 10 0
Driving screws, galv., per grs.	0 1 10
Washers, galv., per grs.	0 1 1
Bolts and nuts per cut. 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
WROUGHT-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, 1s. 9 1/2d. per hour; MATE OR LABOURER, 1s. 4 1/2d. per hour.

Lead, milled sheet, per cut.	£1 9 0
DO. drawn pipes, per cut.	1 10 0
DO. soil pipe, per cut.	1 12 0
DO. scrap, per cut.	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 9 1/2
R.W.P., 2 1/2 in., per yd.	0 2 7
DO. 3 in., per yd.	0 3 6 1/2
DO. 4 in. per yd.	0 1 6
Gutter, 4 in. H.R., per yd.	0 1 10 1/2
DO. 4 in. O.G., per yd.	0 1 10 1/2
MILLED LEAD and labour in gutters, flashings, etc. per cwt.	3 0 0
LEAD PIPE, fixed, including running joints, bends, and tacks, 1 in., per ft.	0 2 0
DO. 1 in., per ft.	0 2 3
DO. 1 1/2 in., per ft.	0 3 0
DO. 2 in., per ft.	0 4 0
LEAD WASTE or soil, fixed as above, complete, 2 1/2 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, 1 in., each	0 2 6
DO. 1 in., each	0 3 8
BRASS screw-down stop cock and two soldered joints, 1 in., each	0 11 0
DO. 1 in., each	0 13 6
CAST-IRON rainwater pipe, jointed in red lead, 2 1/2 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 8
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, 1s. 9 1/2d. per hour (plus allowances in London only); LABOURER, 1s. 4d. per hour.

Chalk lime, per ton	£2 17 0
Hair, per cut.	2 0 0
Sand and cement see "Excavator," etc., above.	
Lime putty, per cut.	£0 2 9
Hair mortar, per yd.	1 7 0
Fine stuff, per yd.	1 14 0
Sawn laths, per bd.	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	3 12 0
Thistle plaster, per ton	3 0 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, 1 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 glaze tiling set in Portland and jointed in Parian, per yd., from	1 11 6
FIBROUS PLASTER SLABS, per yd.	0 1 10

GLAZIER

GLAZIER, 1s. 8d. per hour.

Glass: 4ths in crates:	
Clear, 21 oz.	£0 0 4 1/2
DO. 26 oz.	0 0 5
Cathedral white, per ft.	0 0 7 1/2
Polished plate, British 1/2 in., up to 2 ft. sup.	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, 1/2 in., per ft.	0 0 6 1/2
DO. 1 in. per ft.	0 0 6 1/2
Linseed oil putty, per cut.	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, 1s. 6d. to 2s. 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 6 1/2d. to 8d. per ft. according to size.

PAINTER AND PAPERHANGER

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

Genuine white lead, per cut.	£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 3 6
Knottin, per gall.	0 18 0
Distemper, washable, in ordinary colours, per cut., and up	2 5 0
Double size, per firkin	0 3 6
Fumee stone, per lb.	0 0 4 1/2
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 2 1/2
BRUSH-ORAIN, 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, 1st 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 2 1/2

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, 1/2 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, 1/2 in. punched per M. grey . . . 16 0 0
DO., red . . . 18 0 0

ASBESTOS COMPOSITION FLOORING: Laid in two coats, average 1/2 in. thick, in plain colour, per yd. sup. . . 0 7 0
DO., 1/2 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	1/2 in.	3/4 in.	1 in.	1 1/4 in.	1 1/2 in.
Qualities	AA. A. B. AA. A. B. AA. A. B. AA. A. B. AA. A. B.				
Birch	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3
Alder	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3
Gaboon	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3	4 3 3 3 3 3 3 3 3 3 3 3
Figured Oak	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7
Plain Oak	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7
Oregon Pine	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7	8 7 7 7 7 7 7 7 7 7 7 7

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