THE ARCHITECTS' JOURNAL

Wednesday, September 19, 1928

GOING . . . GOING . . . . *GONE !*

An auctioneer, before he starts the bidding for his goods, lends wings to his fancy to indulge his mute congregation with extravagant panegyric of the goodness, the soundness, the fitness, the excellence, the elegance and the beauty—O! always the beauty—of the goods which he will so soon exchange for cash.

In like manner does the speculator announce his projected transformations with fine phrases coined to reassure the doubting and stimulate the indifferent. Park Lane is to become " the world's most beautiful shopping centre," " the most wonderful London has ever known." So runs the description of this superlatively imagined metamorphosis. What does it mean? Are we to hope that here at last is one who regrets the passage of what beautiful shopping streets London once possessed, and will try again on more propitious soil to re-create beautiful building? Or has someone scented money in Park Lane?

Someone has scented money in Park Lane we fear; for how many times in the last few years have we heard the grandiloquent periods of the auctioneer, and in how many cases has the exchange that followed left us badly off, how many transformations bereft us of treasured pieces of London? We remember how Regent Street was pronounced to be the finest street in Europe just when it became increasingly evident that it was no longer so, and how the gentle features of the Foundling Hospital were used to bait the ignorant, even while they were doomed to destruction. The fine screen of Grosvenor House is used as the trade-mark of a building whose whole outlook is inimical to the spirit which created such fine ironwork, and now once more we suspect that the acknowledged and recognized beauties of Park Lane are to be made just such another lure.

Park Lane is a beautiful thoroughfare. It was lovely five years ago when no one thought of putting shops in it, but is it really going to become the most beautiful shopping street in Europe when the auctioneer has done with it? We don't believe these noble statements, without seriously lowering our standard of what constitutes a beautiful street. We can see from the street plan how difficult is the task of bringing some unity of composition into an irregularly disposed building line, even forgetting for a moment the serious interruptions caused by the great bulk of Grosvenor House, and if we are to understand that there is no question of rebuilding over the sites of the houses we so much admire, then the undertaking assumes the likeness of a patched-up job, and we refuse to credit with the means of bringing it to a successful conclusion any of the members of this hazardous enterprise.

To find a parallel for this type of transformation we must turn to the Brixton Road, the finest shopping thoroughfare in the South of London! There were once beautiful houses in the Brixton Road, and, indeed, one can still see them standing reproachfully behind the line of uniformly blatant little shop fronts that have been built over ground that once flourished with garden flowers. We do not suggest that the parallel is exact, because in the case of Park Lane there is actually an organized attempt to build good shop fronts—" luxury " shop fronts, the papers call them in their vulgar way. The parallel is not exact, but then the houses that are to become mere " upper parts " are so much the social and artistic superiors of those in the Brixton Road that the snub is no less direct, and also the vandals of Brixton made no preliminary brag of what they were about when they stole their quiet march on the authorities.

One feels inclined to ask if Park Lane is, indeed, the wonderful shopping site that it is made out to be; why the scheme of rebuilding is not on a scale commensurate with its unbounded possibilities. Do the promotors think that a line of shop fronts will assimilate anything of the elegance that resides with these Regency houses? Do they hope to make a famous shopping street out of a compromise? And are their one-storied alterations a real investment for the future, or merely the speculation of the moment?

It will be a great loss to the West End of London when the familiar aspect of Park Lane disappears, but one which we have been prepared for by the depredations of recent years. To see these charming houses, each a work of art, linked with, and obscured and travestied by a line of uniform (why uniform in this case?) shop fronts, will be a much severer trial. Let them rather be swept away entirely and replaced by something new and whole than that they should have to drag out their days as " upper parts " to a line of millinery shops and motor salesrooms.

In any case, Park Lane can hardly become the finest street in Europe. Irregular, one-sided, and ending in the wide, open, and dangerous spaces of Hyde Park Corner, it lacks the very rudimentary requirements of a good shopping street, and while the auctioneer is slowly selling his lots facing the park, the little by-streets of Mayfair, the little alleys and passages that lead from somewhere to somewhere, will be humming with the noise of much business.

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NEWS AND TOPICS

MEMBERS of the Garden Cities and Town Planning Association returned from Ireland a few days ago, and some of the impressions of their tour are extremely interesting. It is possible, for example, that in England we may decide to imitate the method adopted in Dublin of converting the military barracks, that was handed over by the War Office five or six years ago, into tenements that are now occupied by people removed from slum areas. A barracks must always remain rather bare, but this scheme has provided good accommodation for 340 families at a cost of from between £60 and £70 for each family. At Limerick a firm of German contractors is making very rapid progress with the works for the electrification of the Shannon, and it is hoped to complete the scheme within a year. The standards for the transmission lines have already been erected, and I am told that the steel lattice work is not very disfiguring to the countryside. Both in Dublin and Limerick there are well-designed housing schemes, and the concrete houses in the former city are especially attractive, as they are coloured with a variety of pleasant tints. The City of Limerick is still suffering from the civil war, and almost every other shop remains barricaded and unoccupied. But the inhabitants are hopeful of a turn of the tide and new industrial prosperity when the new electrification scheme is completed. It was therefore an opportune visit of the Garden Cities Association, the members of which, in conversation with the Mayor of Limerick, suggested that there should be a survey of industrial possibilities for the future, and that a regional planning scheme should be taken in hand.

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In case there should be anybody who still thinks that all this talk about providing the miner with better living conditions is arrant nonsense, I give these snapshots of a kitchen and sitting-room in a miner's cottage in Armley Village, near Birmingham. The correspondent who sent them assures me that there was no "posing" for the photographs—which just shows what surroundings a miner is capable of liking, given the opportunity. My correspondent does not, on the other hand, take it for granted that all such cottages are furnished alike !

I had always imagined that Mr. Mervyn Macartney was an architect. I find that he is very much more; he is a surgeon—that is quite obvious from an examination of his recently completed isometric drawing of Saint Paul's. I have no hesitation in saying that it is one of the most remarkable things I have seen; it is 12 ft. high and 8 ft. wide, and it lays open the structure in so delicate a way, and with such a fine regard for the intricacies of its organisms, that only a very clever and sympathetic surgeon could have done it. You have seen a surgeon carve a chicken ? That is nothing to Mr. Macartney's way with Saint Paul's. Every detail is shown clearly, from the mosaic on the floor of the crypt to the stone jointing on the statues which adorn the pediments. And apart from the value of the constructional detail the draughtsmanship is wonderful. The drawing is dedicated, very properly, "To William Dunn, F.R.I.B.A., who first suggested the idea of showing the construction of St. Paul's Cathedral by isometric projection."

* * *

The future of the King's and Bishop's Mill site at Cambridge is still under discussion. Plans have been drawn up by the borough surveyor for replacing the foundations of the two old mills by a reinforced concrete weir, 40 ft. wide. But the view taken by the Cambridge Preservation Society, of which the vice-chancellor, the Rev. G. A. Weekes, is president, is that there is a peculiar opportunity of preserving the natural conditions of the fen, and a rare monument of its connection with the life of Cambridge. The twin arches of the mill, which is a comparatively modern building, almost certainly encase the medieval arches of the two mills. The society is suggesting a design that will both save the borough council money and will also prevent an unnecessary alteration in the fen country at the beginning of the upper river.

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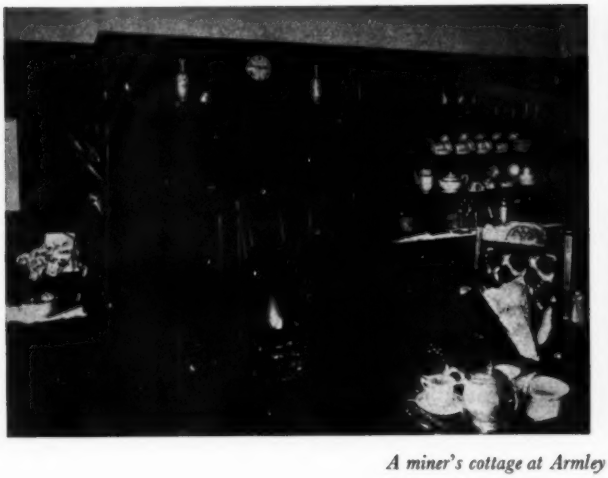
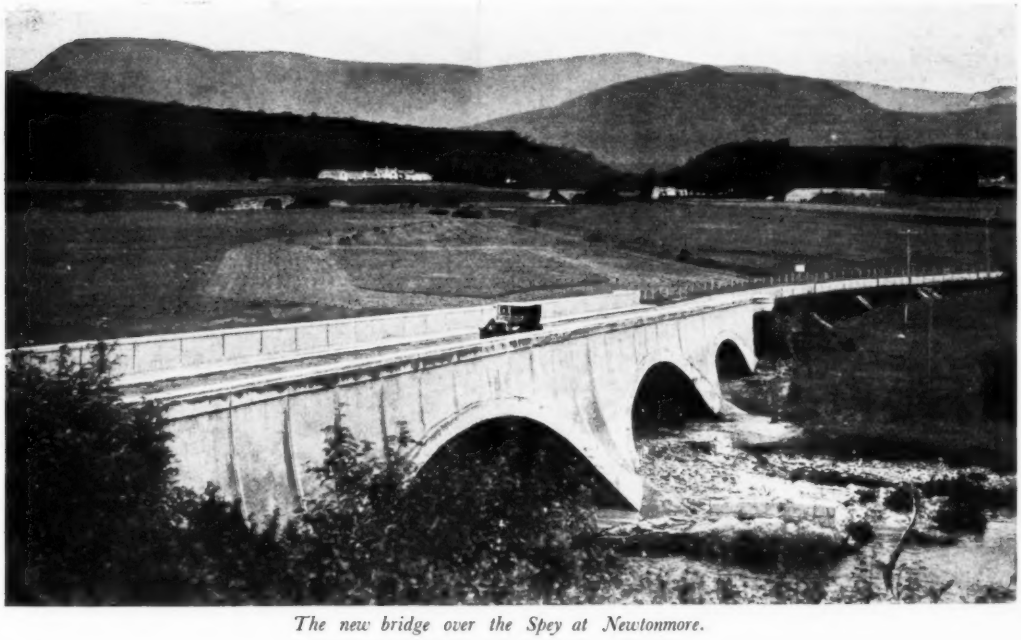
We are in the midst of a suddenly expanding era of bridge building. The Thames bridges form a constantly recurring topic for the daily and technical Presses; all over the country, on both the new arterial roads and the old widened turnpikes, a great number of new bridges are being built; they are almost invariably of reinforced concrete. From the points of view of design and district amenities they vary much. Some are positively hideous and shriek across the landscape, others are just dully mediocre, while just a few are good.



A miner's cottage at Armley Village, near Birmingham. Left, the kitchen. Right, the living room.



The new bridge over the Spey at Newtonmore.
By Sir Owen Williams and Mr. Maxwell Ayrton.

Illustrated here is to be found one of these rural bridges, an Owen Williams—Maxwell Ayrton one, which has just been built on the Perth-Inverness road. This road is one of the most famous in Scotland and passes through beautiful Highland country. It was one of General Wade's roads, was reconditioned by Telford, and after 200 years of life has again been rebuilt. It has been given thirty-five new bridges, and if this is a good sample the matter is one for all-round congratulation. The reader may judge for himself whether or no the bridge fits into the landscape; its lines and curves certainly do so, and the material will doubtless weather. It is an excellent refutation of the prevalent belief that an architect must always be called on to add pretty detail (usually period) to a bridge when suitability to its surroundings has to be considered. The cases of two famous rural bridges, one on the Thames and one in Warwickshire, spring to mind. The published drawings of these make one despair for a profession so apt to sneer at "engineers' architecture." Let all who do so examine this example of engineers' work in due spirit of humility. It has a fine sculpturesque quality, and the cutwaters are a joy. The strong line of the parapet holds the flowing curves together splendidly. The designers are no tee-square myopics with two-dimensional minds. The bridge is a clearly-visualized conception, carefully and subtly studied. ASTRAGAL

GOTHIC GARDENING

[BY MRS. MANNING ROBERTSON]

EVERY architect of character believes that he could, and should, design the garden in which his client's house is to be set. Too often he is responsible only for the shell, popped on a barren site like an eye on a plate. Without his direction commercial firms decorate and provide the subsequent accessories. There can be no reasonable doubt that a capable architect will design a pleasing garden context; the levels will be happily disposed, steps, piers, and details will have character and unity, local material and talent will be utilized. So far, so good; but if an architect is to claim conscientiously that he specializes in garden design, more should be required of him than external achievement, a knowledge of æsthetic layout, and colour harmony.

Garden history descends through a dual strain that is only now converging; first, the deliberate and conscious design of pleasure gardens or grounds, in which the plants grown play a supplementary part; secondly, botanical or practical kitchen gardening, where plant culture is the paramount business. So far, official designers and architects have been solely concerned with the first, and even today the survival of Victorian bedding-out, which is the art of millinery and not of gardening, of necessity persists in exhibitions, parks, courtyards, or where a constant and formal display is essential. So-called "wild gardens," untidy pavings, and disorder are equally divorced from serious gardening, and true plant culture is often segregated in unvisited kitchen gardens and orchards that are allowed no share in the general scheme. A well-laid-out property, be it large or small, should be co-ordinated even, if necessary, to suitable provision for the household washing. No one wants to look at his underlinen ballooning in the breeze, and the tactful hedge that should screen it will also prevent it from blowing away.

Garden design, whether it be formal or "wild," should spring from the Gothic principle—from within outwards. It is not enough to stand on the door-step and decide what would look well and then to crush the material into the prepared mould. Nothing will look well that cannot grow well; the perfect garden—as distinct from the ornamental layout with flowers in it—is the growth of Nature directed

by intelligence; the work of mason, sculptor, and smith happily introduced adds immensely to its charm, and it is doubtful if any solely natural garden will ever have the attraction of one where Nature is accentuated by art. The first question, then, that the designer should ask himself is how to make the garden comfortable for plant and man. Let him assemble his particular conditions—it is alarming the number that there are to consider—situation and altitude in relation to climate, aspect, levels, sun, shade, wind, soil, water; then accidental facts, such as existing walls, stones, orchards, paddocks, tennis, motor or hand lawn-mower. The old restored garden, for all its initial difficulties, will achieve a character that a new creation must miss; but new soil will atone for much, and advantage should be taken to propagate a quick range of bulbs and herbaceous plants while flowering shrubs of slow growth become established in their glory.

Labour saving and accessibility count for as much in a garden as they do in the house. It is useless to design a romantic isolated corner unless it can be readily weeded and watered. A good architect does not place the dining-room remote from the kitchen, neither should he exile the potting-shed and the garden pump. There are steps up which no barrow can be pushed—they should not be the sole means of communication with the herbaceous border, which also resents being swept by the east wind; it is cruel to scorch *azaleas* on a rocky mound; infant flowering shrubs require more protection than is afforded by the gay-coloured tag-labels which the nurseryman has tied to their necks; it is useless to prescribe a wind-screen except of plants that will themselves stand the wind; plants dread a definite draught.

Beyond anything else provide corners, whether they be formed of wall, existing evergreens, or natural promontories. A happy plant filling a corner is like a comfortable hall-porter in a round chair. Even a few deciduous shrubs or trees can break the force of the wind and frost, and plants so screened will often fare better than if partially protected by a thick evergreen around which the wind whistles. It is well to remember that if you keep the east wind from rushing out you will also hinder it from rushing in too fast. The use of matting against frost does more harm than good, unless it be reserved for a few exceptional spells of short duration. Plants rot if left in the dark wrapped in dank blankets.

A well-planned garden provides not only wind-screens, but sunshades; many delicate specimens are brought on precociously by early spring sunshine only to become more susceptible to the succeeding blast of frost. Veronicas, among others, are peculiarly sensitive to the reverse effects of sun following frost; when not near the modifying influence of the sea they do best growing in a sheltered north or north-west aspect. The many showy autumn introductions from Chili, such as *calceolaria violacea*, *lomatia*, and *eucryphia* require the half-sheltered situations to which they were accustomed in their native forests. Most creepers, including *clematis* and *actinidia chinensis*, must have their stems protected from the sun. They are used to shady roots when growing in the woods and only enjoy the sun when it plays upon the upper branches. It may be argued that all this is gardening and not garden architecture, which exists to design the framework in which the garden is to be grown. If, however, the garden does not thrive the designer will be blamed, and he must anticipate pitfalls. When, therefore, his client looks at a gateway and mentions clematis, let him be warned in time and combine with it a shady rambler, or start the creeper on the north side. The client will almost certainly expect a pavement, through the cracks of which he visions radiant saxifrage and aubrietia. These he may achieve if the soil and drainage below are favourable, but even if unfavourable he will have his dandelions and scutch, and he will not get rid of them without sweat and tears. Nothing requires more deft management than the pocket of soil on wall or quarry in which a treasure is to thrive. Few plants can flourish in a sprinkling of soil on a flat ledge; a dwarf wall built hollow and filled with soil is a certainty.

A Sheltered Border.

Water gardens are threefold: those that come off; those that are scorched except for a stagnant mud cake at the centre; those surrounded by high trees where the soil is soured by the damp leaves of autumn. Water running merrily down a slope, shaded by *bamboos*, *andromeda*, and *clethra*, bordered with colonies of iris and primulas, solves its own glory. The designer is more likely to face a paved fountain (with figure) into which are launched in faith a bowl of goldfish. His hope is first to secure that the water shall be constant, and the fountain readily reached and cleaned. What is more depressing than the asthmatic gushes of a pipe filled with air? Plan for future shade and wind shelter, and meanwhile plant something which will face exposure, such as *olearia hastii*, or *tamarisk*. Unless you can control them, leave bulrushes to Moses. For the overhung water garden, rely on foliage rather than on flower. There are lovely ferns, such as *osmunda* and *lomaria*, which thrive in such conditions; *andromedas*, *liquidambers*, and *rhododendrons* can all contribute, though none of them will tolerate soused roots, and all require a fair start with fresh soil.

Avoid the use of young forest trees, such as deodars, in a suburban plot. To save labour let the lawn as far as possible be unbroken. The use of narrow concrete paths saves subsequent labour. Stepping-stones giving access to all parts of a wide bed not only look well, but prevent the soil from being trampled and hardened.

Finally, urge your client to use his cold greenhouse as a reserve for his choice shrubs. If he has two of a type he should plant them in different parts of the garden; one may thrive and the other perish inexplicably, but a rooted

cutting under cover makes him safe. Plants like *callistema*, *myrtus ugni*, *coronilla glauca*, and *lomatia* are as showy as any stove plant, and, with an understudy in the background, these can be risked outside in mild districts.

No one wants to be dependent on plants half-hardy to his district, yet anyone of adventure will try to grow something choice; but let him use his glass properly.

These jottings are given with the conscious solemnity of a sufferer. The experienced gardener cannot realize the pitfalls like one who has erred; and the author of this article has scorched azaleas, soused bamboos, ruined veronicas, and been compelled to purchase 50 yards of hose-piping to reach hydrangeas in romantic isolation. She will not dwell on her meanderings with a wheelbarrow.

PARK LANE

[BY E. MAXWELL FRY]

To trace the history of Park Lane from the date of its emergence from the fields, through all its heydey of eighteenth- and nineteenth-century social existence unto this last phaze of twentieth-century development would be a pleasant and a not unpraiseworthy task for one with time on his hands. It is a thoroughfare that oozes with historical and social titbits; "somebody" has lived in nearly every house: Regency ladies and bucks, statesmen, soldiers, writers, painters, and the merely rich, in a long and glittering line have taken lease of house and life facing the park. An age that cared a deal for good manners and pretty building has set a distinctive mark on it, and what is being pulled down today will never, in the dainty form in which we know it, reappear.

It would be pleasant to discourse on the history of it all, but as we talked another house would come tumbling down, and I would rather you saw that house before it fell than that you should know all I could tell you about the lovely Lady Blessington who lived in a bow-windowed house which we shall see presently, or Lady Fitzherbert, the wife of George IV, who also lived close by.

The reconstruction of the West End proceeds at such a pace that there is barely time in which to ascertain what is scheduled for destruction before the housebreakers appear. Regent Street being a piecemeal job, it was possible to discuss the merits of what was going on before it went, and in this way a deal of good educative criticism was delivered hot, as it were; but in places removed from the glare of publicity, buildings of rare charm and beauty can be brought to dust without a murmur being raised, and, what is worse, without record or scrutiny by those people whom it most concerns. It is with this object that this article, with its accompanying illustrations, are produced.

Park Lane, in the form in which the Regency period cast it, is now hopelessly destroyed. It was not perfect before the new Grosvenor House was started, but its character

Terraced houses in Park Lane, W. These houses use stucco as it should be used, without joint lines or rustication of any sort; clearly and with a sort of mathematical precision.

was quite definitely in the period. Now, however, the severance made by an entirely new and incongruous style of architecture leaves the remaining houses stranded at each end of the lane, rather pathetic little units, hung about with the signs of their impending decease.

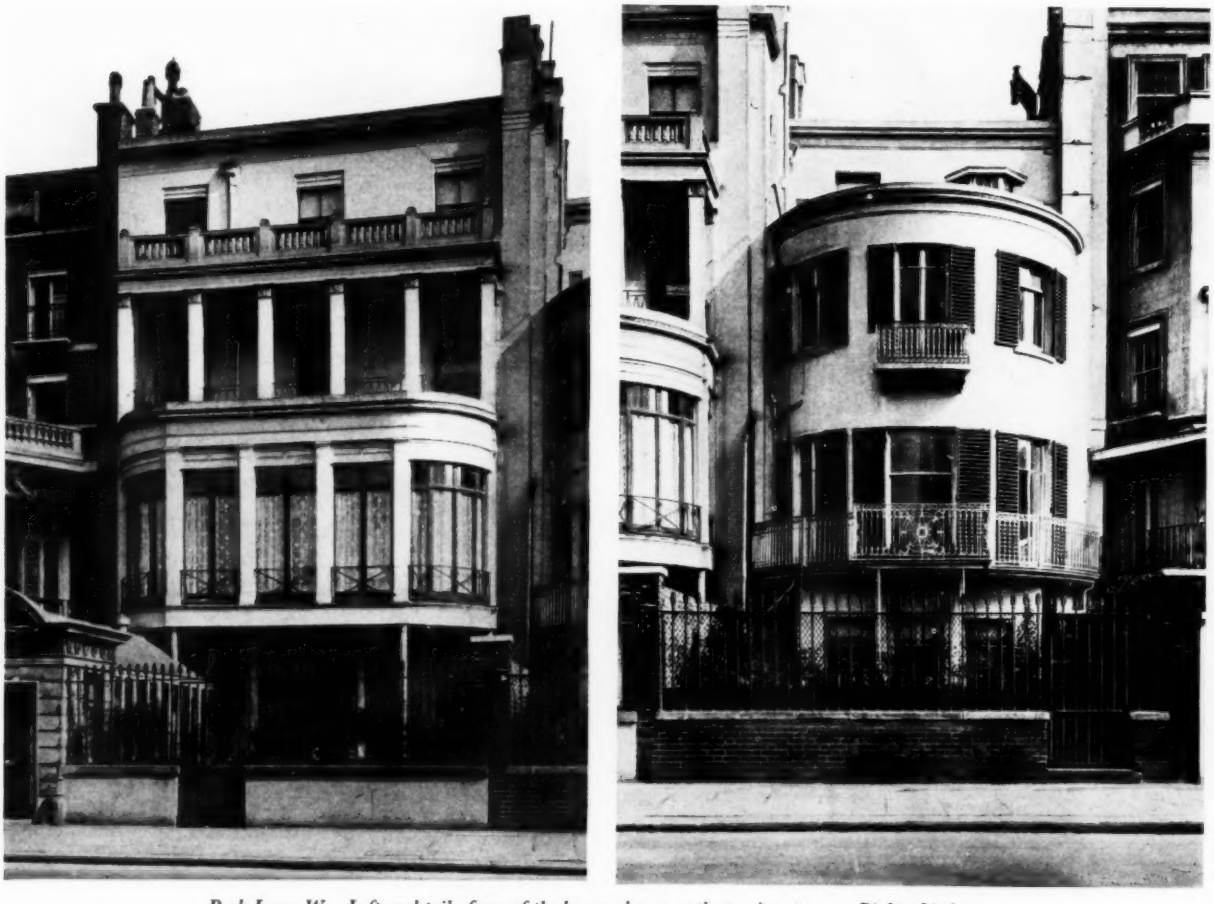
Let us examine them closely before they fall. The first photograph (page 397) shows the group nearest Marble Arch. It is, as you see, a rather jumbled little assortment, tied together rather by a common style than by any uniformity of disposition. It is no model of street architecture, such as Regent Street presented, and when we have realized that Park Lane was once a lane in the real and countryfied sense of the word, and that many of these houses have front doors to a street in rear, then we shall cease to worry about the whole and will concentrate on each individual house, remembering that it looked over fields of Hyde Park long before motor-cars, tar paving, and electricity had made a street out of a little back lane, and when society, supported by armies of servants, lived grandly in houses riddled with stairs and basements, giving never a thought to the problems that beset this democratic age.

All these houses use stucco as it should be used, without joint lines or rustication of any sort; clearly and with a sort of mathematical precision. Where Nash was content to gloss over the detail in the general assembly of parts, these buildings show how susceptible was stucco to a very refined and carefully modelled detail. Observe, for instance, the ornamental caps on the terraced house, and notice how brilliantly they stand forward from the shadow of the loggia. Then see, in the beautiful example adjoining, what charm resides in the sweep of well-finished stucco on the projecting bow, set off and defined by the dainty cornice mouldings.

The house shown on this page, right-hand side illustration, has always been my favourite. It is snug and complete within its simple bow front, and shows that gaiety and lightness can be attained without loss of scale.

Both this and that shown on page 400, left illustration, an exciting composition of three orders, have a maritime air, something of the look of an old galleon with " captain's walk " over the stateroom.

The mansion shown on the facing page, with its colonnade of coupled Ionic columns, is on a different mould from those going before, and on a scale with Belgravia rather than Park Lane, and distinctly Italianate. The fenestration of the front façade, if we could see it with the clumsy iron veranda removed, might prove to be a little too cramped in comparison with that of the side elevation; but the general aspect of the building, the balcony being freed of its encumbrances, is broad and satisfying, delicately modelled, and devoid of littleness. Here, again, all the minor elements of composition play up to the plain stucco surface without the mediation of joint lines and rustication. The resulting effect is strong and dramatic.



Park Lane, W. Left, a detail of one of the houses shown on the previous page. Right, this house, with its simple bow front, shows how gaiety and lightness can be attained without loss of scale.

Park Lane, W. Above, a mansion rather on a scale with Belgravia than with Park Lane, and distinctly Italianate. Below, houses in Park Lane, showing Grosvenor House in the distance.

Park Lane, W. Left, an exciting composition of three orders. Right, a slim, white creation, showing the effects of light and shade springing from the manipulation of smooth surfaces of uniform texture.

As the road turns southward we come on the last group of survivors, separated by a yawning excavation from the giant intruder. Rather like frightened old ladies they huddle together out of immediate reach of the building so lately come among them. How is it possible they should long survive this shock? How can they, so delicately made, breathe the vibrant, strident, international atmosphere in which this new colossus is so blatantly at home?

Look at the slim, white creation illustrated above (right) and on page 399, and place it beside the towering brick walls on the communal palace lower down.

Comparison is out of the question. They belong to ages as far removed from one another as industrial Lancashire was removed from pre-revolutionary Paris. The age that builds Grosvenor House can have but little time for such dainty fragments. Nevertheless, if there is any virtue in work that *is* beautiful, and that was once most skilfully adapted to the society for which it was built, then these examples are worth while examining with something more than an historical interest.

Try to discover, for instance, how they manage to look so graceful and light without being self-consciously so. Find out why, with so little expense, they give one the impression of elegance. Look closely at the projections of cornices and strings, and the shadows these cast on the smooth stucco. Make careful note of the design and weight of the delicate ironwork. Above all, see what effects of light and shade spring from the manipulation of smooth surfaces of uniform texture.

It seems a pity that some comprehensive scheme of treatment for Park Lane might not have been formulated before the new flats were built. Park Lane as one of the boundaries of Hyde Park should be given the significance that such a thoroughfare demands. If it is to become a shopping street, then it should be wider and of a regular frontage, for even if it cannot hope to achieve the grand effect that results from the combination of the façade and the park in the Rue de Rivoli, it can at least do something to help the fine sweep of the avenue within Hyde Park, and not just take advantage of it, as Grosvenor House does, by looking romantic through the trees. After all, several more buildings are to follow. They won't all look romantic, and if they all face at different angles to the street a walk down the Park Lane of the future will be a dizziness and a weariness of the flesh. It should be possible at least to draw a new building line, and in this way secure uniformity, otherwise the end of gentle Park Lane will be a jumbled mass of semi-skyscrapers, reminiscent of some of the less noble parts of New York.

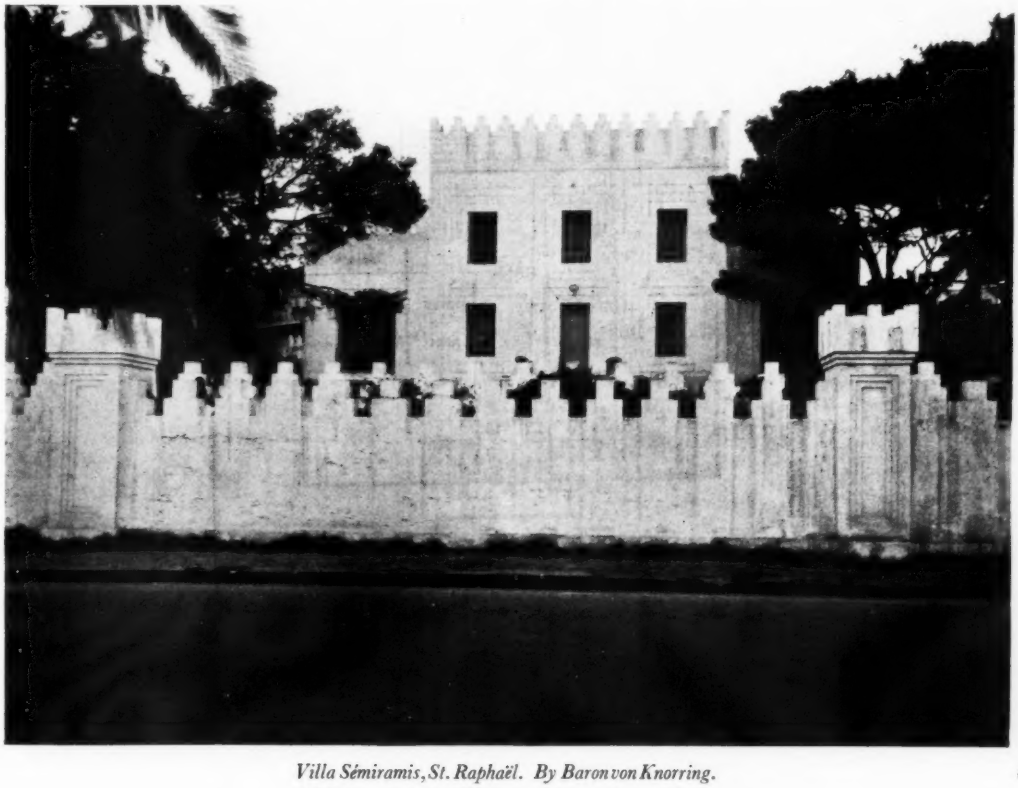
This is the occasion when the Bath clause might operate to some effect; but better still, where the R.I.B.A. might step in early and say to the architects of future buildings: "Will you, in the interests of good street architecture, join with us in making Park Lane the fine street it deserves to be?"

THE VILLA SÉMIRAMIS AT ST. RAPHAËL

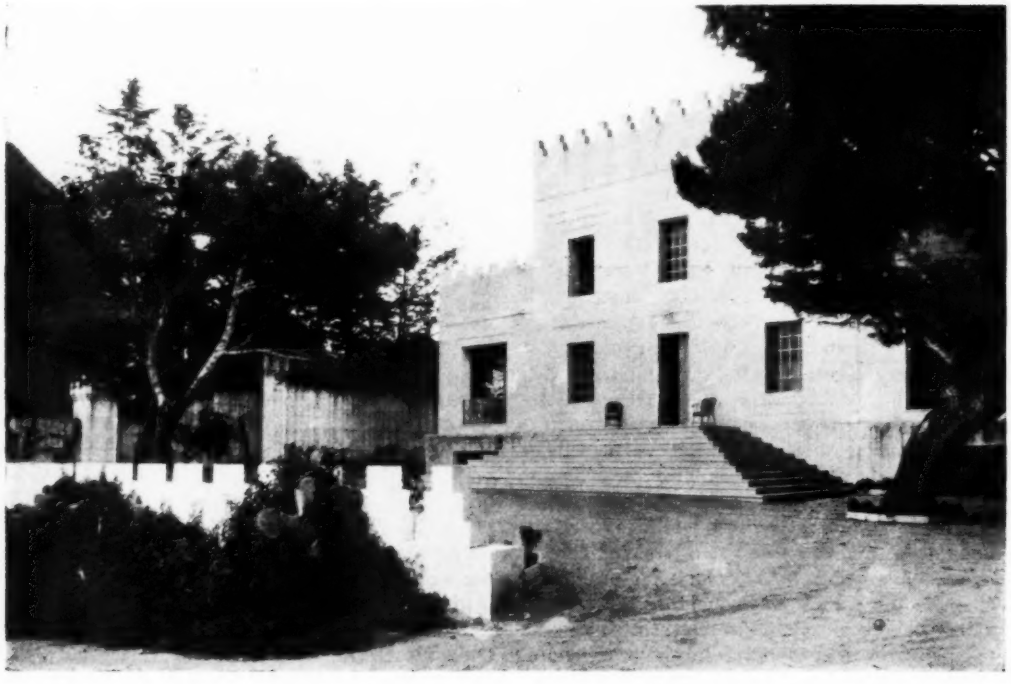
[BY P. MORTON SHAND]

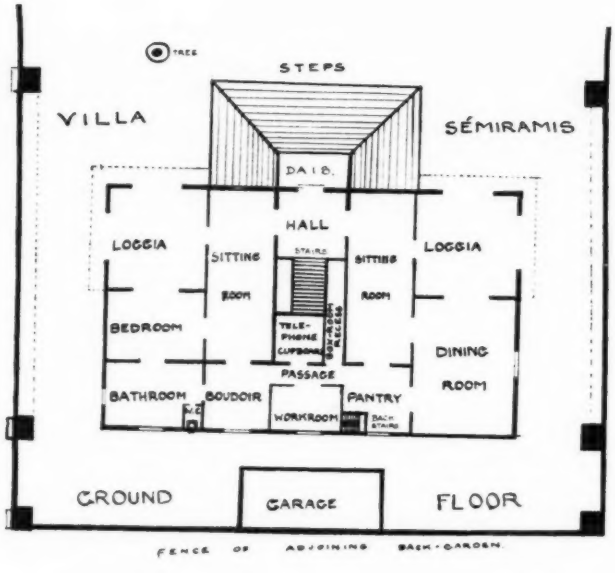
FORTUNATELY for the beauty of that famous coast where a smiling Nature is at her loveliest, the battle of the styles on the Riviera may now be said to have been fought and won. The result is a triumph for common sense, human dignity, and local traditions over all those international vulgarities which the powerful and æsthetically reactionary forces of opulence disseminate wherever they sojourn as an essential part of their residential ambience. In such a setting of luxuriant vegetation, prodigal sunshine, with its concomitants of deep blue sky and sea, can often virtually efface the most flamboyant extravaganzas that plutocrats have perpetrated, or attenuate the glittering curves of those far-flung promenades of lamentable confectionery dolls' houses devised by men of slighter substance, snobbishly emulous of the structural apanages of unhereditary wealth. Even in some famous English seaside resorts something of the same salutary obliterating effect as of a benign eclipse is produced whenever the watery sun vouchsafes to shine in something more than a purely figurative sense upon its imitation Locksley Halls and mongrel Baptist tabernacles. There is, however, obviously a limit to the efficacy of this architectural fusion in strong sunlight, which is reached when a nondescript town has so completely eroded the natural features of its site with a distemper of ambitious edification, pretentious "amenities" and lavish "embellishments," utterly alien to the encompassing landscape, that the coalescence of the whole disintegrates into the garish emphasis of its parts. It is from this very real danger that the Côte d'Azur has just been saved by the admirably sane and comprehensive plan of regional development which has been adopted for the entire littoral lying between the Peninsula of Giens, near Hyères—if not, indeed, from Bandol, beyond Toulon—in the west, and Cap Martin, hard by Ventimiglia, in the east; in conjunction with the now general use (even for new Anglican churches) of the neo-Provençal style.

The so-called neo-Provençal style, based on the "*Mas*"—the typical, unpretentious, sensibly-designed farmstead of Old Provence, with thick burnt sienna *pissé*, or coloured stucco, walls and a low-pitched, pantiled roof (often with only a single slope, or with one slope three times as long as the other), mottled russet, tawny-umber, and ashy-drab, jutting out over the upper story in a cornice of three receding tiers of these same convex pantiles used concavely with mortared interstices—has succeeded the chaos of "*chinoiseries*" and *Viollet-le-dukeries* that degrade whole quarters of Cannes, Nice, and Mentone in which the inevitable "*Ma Toquade*" can be found gallivanting in the several guises of a Swiss chalet, a dwarf Hispano-American *estañcia*, a miniature Renaissance *palazzo*, a bijou Touraine



Villa Sémiramis, St. Raphaël. By Baron von Knorring. Additions by M. Thévenet. Front view, showing the twin loggias, from Avenue Henri Martin.

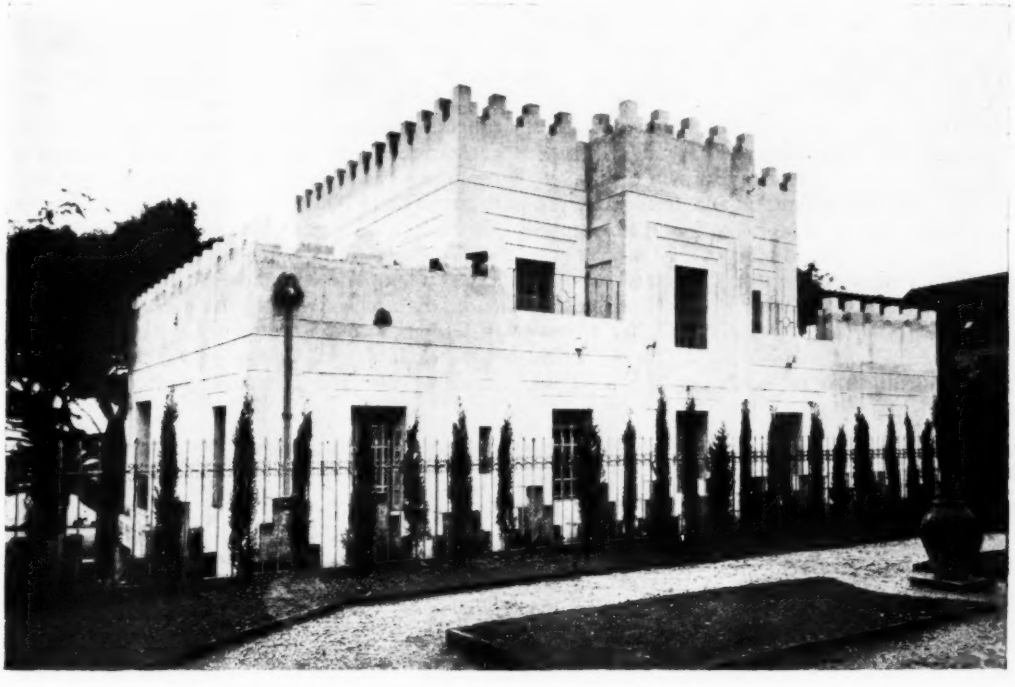


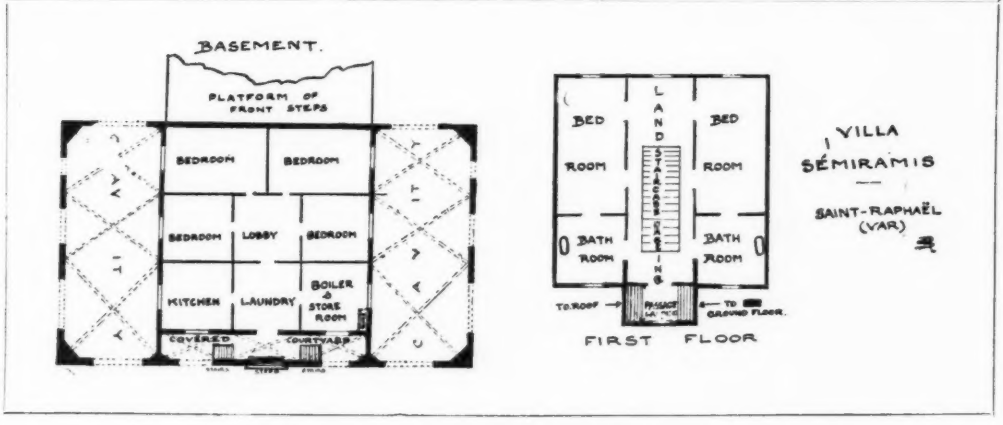


Villa Sémiramis, St. Raphaël. By Baron von Knorring. Additions by M. Thévenet. Above, view of principal façade, showing front steps, western loggia, side wall, and end of ramp wall. Below, ground-floor plan.

château, and even an English Gothic-Revival vicarage. The Concrete Purity School has nothing to teach the Provençal builders of today in regard to the virtues of unbroken surfaces or unconventional shapes in voids and solids. On scores of "*Domaines pour Division en Terrains de Lotissements*," now in process of exploitation all along the Côte des Maures, the Esterel seaboard, and the mountain-side of the Grande Corniche between Nice and Monaco on lines expressly designed to avoid those mistakes in "*urbanisme*" that are so conspicuous at Beaulieu and Monte Carlo, no other style is in evidence. Moreover, in order to wed this purely local style still more closely to its native soil, the old slapdash philistine method of clearing standing timber to make room for streets and buildings has been superseded by the recognized town-planning practice of laying out roads, shopping centres, and villa sites so as to leave all the finest trees growing. By this means, instead of felling trees ruthlessly to let rows of naked houses spring up from ground bare as a newly-ploughed field, their beauty is incorporated as an integral element of the new vistas. Once the construction of new roads precedes the construction of the new buildings destined to abut on them, gracious, full-grown trees, which Stendhal said no French peasant or *petit rentier* could behold without itching for an axe, are reasonably sure of reprieve.

At last Southern (though not yet Northern) France has a truly French, and genuinely rustic, domestic style as a counterpart to our neo-Georgian idiom in red brick; and in both cases it is the rational spirit, the seemliness, the sober refinement and sparing ornamentation of the earlier eighteenth century which has prevailed over those adventitious mannerisms and incongruous innovations typical of the debased nineteenth. In the old *Mas* the windows are





Villa Sémiramis, St. Raphael. By Baron von Knorring. Additions by M. Thévenet. Above, rear side elevations, taken from the garden of an adjoining house. Below, plans of basement and first floor.

often small and heavily screened by cypress trees, or turned away from the noonday sun because during the long, blistering summers its scorching rays were shunned as sedulously as the paralysing blasts of the *Mistral* in winter. In the new villas and *oustalets*—which, in spite of the growing popularity of the Riviera's summer season with sun- and sea-bathers, are primarily intended for winter habitation by strangers avid of natural warmth driven from Paris, London, and other inclement parts of frozen, waterlogged or fog-bound Northern Europe to seek it by the shores of the Mediterranean—windows are deliberately orientated due south, full in the face of the morning sun, looking out over the open sea; while ample loggias and lightly-creepered pergolas serve as catchment areas for all available afternoon sunshine. The rooms that look north and inland, on to the sheer, beetling scarp of the mountain range so close behind, are given over to servants' bedrooms and kitchen offices. A festive sun condones nearly every polychrome audacity. The roughcast stuccoed walls, made of the ragstone which their foundations provide—on the Côte d'Azur the excavations for a house nearly always yield enough stone for the walls, while the seashore furnishes sand, and the adjacent hillside the necessary timber, leaving only cement, tiles, and fittings to be sought elsewhere—hollow brick or concrete blocks are just as thick as in the original *Mas*, and even more brightly pigmented: salmon, cream, and warm ochre tints, with blue, scarlet, and green shutters and trelliswork predominating. The pantiled roof is often coloured even more vividly, glazed in green or painted blue, though occasionally it is suppressed in favour of the flat, Oriental house-top with a plain or decorative parapet; just as the stuccoed walls sometimes give place to "*pierre meulière*" and mortar joints, with unglazed pepper-and-salt tiles. The new villa has more light and air than its exemplar; the windows, like the loggias, are larger and more numerous; there is a bathroom (which, in this dry region, necessitates a large storage cistern in the garden, that in spite of looking like a dwarfed railway water-tower can assume quite agreeable domestic forms when gaily tiled and tinted) and a garage. Often, as in some of the best and most recent examples—like those on the road between Bormes-les-Mimosas and Cavalaire, or Beauvallon and St. Agulf; though others may be found at Miramar and Juan-les-pins—the garage, flanked by the servants' quarters, is placed immediately under the living-room balcony in the centre of the building: the main entrance being on the first floor in the rear, owing to the abrupt slope of the rocky seashore, or hillside, on which the villa is perched. Subsidiary decorative motifs usually combine a little light modern wrought-iron work with penthouse chimneys and various stylistic reiterations of the "*jarre*"; the large, gracefully-shaped, partially-glazed amphora used from time immemorial in Provence for the storage of olive oil. Honeycomb grilles of rounded red tiles supplant the tedious conventionalism of an Italian balustrade for roof or cliff parapets. Boundary walls and garden terraces pour forth emerald and vermilion cataracts of five-fingered, fid-shaped ice-plant, while the loggias and pergolas are embowered in a blaze of yellow and crimson creepers or rambler roses. The gardens themselves are arranged so as to supplement Nature in what was growing spontaneously on the ground in its wild state before the gardener got to work—umbrella or Corsican pines, cork trees, eucalyptus and mimosa, with an undergrowth of white Bruyère heath (from the roots of which briar pipes are made), and bushes of juniper, arbutus, rosemary, and wild lavender, to the total exclusion of oily rhododendrons—instead of constraining her into linoleum geometries. Of course, the

Villa Sémiramis, St. Raphaël. By Baron von Knorring. Additions by M. Thévenet. Gateway to grounds and western loggia.

Villa Sémiramis, St. Raphaël. By Baron von Knorring. Additions by M. Thévenet. View of ramp and front walls, looking towards the sea, showing fountain in foreground.

neo-Provençal style, which relies on mass, form, and colour, and on being an integral part of this sunny landscape, for the success of its appeal to the senses, can be, and often is, abused and debased—as all other styles are, were, and always will be abused and debased—by those who strain after ambitious effects to which it is not amenable. But the main thing, the real cause for rejoicing, is that the style has been found at last: a cheap, practical, adaptable, and pleasing style that suits the local scenery, the local climate, local traditions, local requirements, and local building materials.

It must not, however, be imagined that during the period in which—concurrently with a growing public insistence on the maximum of light and air compatible with habitability and comfort—this neo-Provençal style gradually evolved and was slowly taking root on the Riviera, until well before it was perfected it had already become fashionable, all these heterogeneous samples of styles, national renderings of styles, and their various hybrids that continued to spring up there like forced mushrooms, were necessarily bad, vulgar, intrinsically impertinent or wholly inappropriate in their settings. It is obvious that under the clear vault of such a cobalt sky, and by the side of a dark azure sea, fringed with an exotic flora of aloes, cacti, and date-palms, and diapered in places with jade-green shallows and crimson-madder rocks, certain of the more chastened Oriental mannerisms might stand a fair chance of partial acclimatization in particularly suitable sites. The Chaldean villa illustrated in this article belongs to a deliberately experimental class, and may be regarded as a scholarly, and not entirely unsuccessful, essay in that grand manner peculiar to ambitious stylistic revivals based on the study of those remote periods of civilization which the devoted labours of enthusiastic excavators have brought nearer to our comprehension than the confused centuries of mingling spirituality and barbarism we vaguely call the Middle Ages. The origins of not a few architectural motifs and manners, formerly considered as definitely dated as the masterpieces of classical sculpture and literature, continue to recede into the mists of pre-history as year by year indefatigable Egyptologists, Assyriologists, and Phœnician experts delve one after another of them from the bottomless potsherd strata of forgotten cities that were to Thebes, Nineveh, and Tyre—which rose to fame on the ruins of their sites—what ancient is to modern Rome. There is no new thing under the sun, though all is not vanity. The simple and majestic plastered buildings, the beauty of which consisted almost entirely in scale and proportion, that Sumerian builders raised with bricks pressed from Tigris or Euphrates mud, are now being echoed, shorn of much of their majesty and not a little of that rarer simplicity which is akin to beauty, by the Modernist School, impatiently scornful of tradition, working in plain moulded surfaces of naked concrete masses. Yet architecture would be as sterile of evolution and impotent to progress without accumulated tradition as would be mankind itself without the instincts transmitted through heredity and the knowledge it has acquired from history.

Doubly startling in its ageless Babylonian aloofness and glittering whiteness for being set in the midst of a bevy of "marine residences," which yield nothing in banality to some of those at Bognor, or in blatancy to many that defile Biarritz, rather than among the date-groves of Bagdad, the Villa Sémiramis will be familiar to all English visitors to St. Raphaël as to anyone who has passed along the Corniche d'Or road (Route Nationale No. 7), skirting the Esterel Littoral thence to Cannes. It is reassuring for the survival of our reputation as a people imbued with an irrepressibly adventurous spirit to learn that this villa has sometimes been let to English families for the winter season through the estate agency of the Banque W. F. King: a local British firm that has done excellent pioneer work in the rational development of the woodlands of Valescure and the mountainous coastal belts stretching towards St. Maxime and Le Trayas. None the less, this remarkable building is usually dismissed as uninhabitable by compatriots with some such remark as:

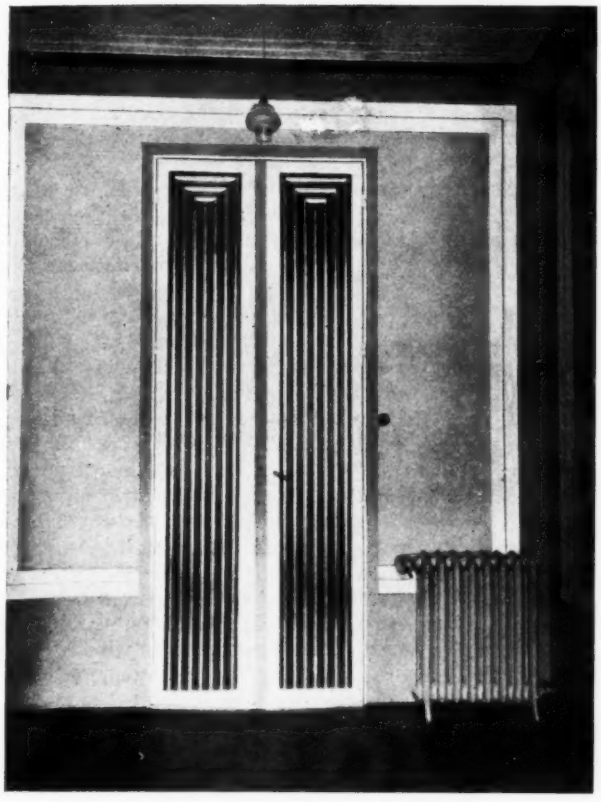
" Oh, that impossible Oriental Bazaar nightmare? Thank you, I shouldn't care to have to live there!" Locally, it is considered a *bizarre* " folly," typical of the preposterous second homes which many rich, but eccentric foreigners build for themselves on what Mr. Grant Richards rather disdainfully dubs "The Coast of Pleasure." Parisians, especially *Parisiennes*, perfunctorily admire its " Turkish " or " Tunisian " or " Moorish " façade, while sincerely regretting its lack of that familiar Eastern exuberance of detail, exemplified by the Trocadero, a veneer of which might have transformed a so appropriately named villa (agreeably reminiscent of the Rahat Lakoum music of Rossini's opera " Semiramide ") into the most deliciously coquettish little *garçonnière*.

The design of the Villa Sémiramis, which was built for a Russian noble, the Baron von Knorring, was based with almost academic strictness on that of a well-known tentative reconstitution of the Palace of Darius by a famous French archæologist which may be seen in the Louvre. As Baron von Knorring, who, for some inscrutable reason insisted on the plans he himself prepared being religiously destroyed the moment they had been made use of, is now dead, like the local contractor who built it, recourse was had to the amateur expedient of pacing the exterior and a summary measurement of the interior with the aid of a walking-stick, so as to avoid an undue disturbance of the present tenants. In consequence, the three rough plans reproduced herewith must be regarded as approximate, rather than accurate, indications of the general scale of the villa and the several proportions of its component rooms.

Villa Sémiramis, St. Raphael.
The main staircase from the hall.

The original structure, which was square, three windows wide and two-storied, consisted of the present *corps de logis*, as seen from the front (page 401), and coincided with the existing form of the first floor. When M. Thévenet, the present owner, added the two loggias (a cross view of one of which is more clearly shown on page 402) and the aisles which prolong them in rear, he augmented the depth of the rest of the ground floor by some 5 ft., so as to provide a straight back wall uniting the new portions with the old; besides building out a corresponding projection in front of what was then the middle first-floor window of the north elevation (see illustration on page 403) to accommodate the landings for a service staircase which he introduced at the same time. The superficial area of the villa was in this way increased from some 30×30 ft. to about 60×35 ft. While the extra space and other conveniences considerably increased the villa's general habitability, the addition of these two open loggias may be said to have enhanced, rather than impaired, the proportions of the original building. Fortunately, M. Thévenet was a man of taste, as well as resource, who could himself draft the necessary plans and personally supervise the masons at their work, so as to prevent the perpetration of any ornate solecisms or the least zealous professional deviation from the severe purity of the Chaldean style as it had been interpreted in Baron von Knorring's conception.

Built on ground rising rather abruptly from the palm-fringed promenade known as the Avenue Henri Martin to a natural terrace some 8 ft. above it, the villa has a due south exposure fronting the Gulf of Fréjus, the foreshore of which is bordered by the railings of this same avenue that is a part of the Route Nationale No. 7 from Paris to Nice and the Italian frontier lying within the municipal boundary of St. Raphaël. It stands closely hemmed in by neighbours on three sides in a rectangle of grounds a little over a quarter of an acre in extent, including the house itself, entirely surrounded by whitewashed concrete walls. These walls, about 6 in. thick and varying between 6 ft. and 10 ft. in height, are broken by six pilasters, some 12 ft. high, on either side (four of the twelve being corner posts); with two more, about 9 ft. high, interrupting the course of the front wall. A second taller pillar (making five in all: three tall and two short) has been introduced here to form the second post of the gateway (page 404). The front and rear walls—the latter, about 10 ft. high and devoid of pillars except at the corners, is surmounted by the garden railing, fringed with a row of young cypresses, of a house behind standing on a higher level—are fretted in three- and five-element machicolations respectively, that display seven and eleven facets each and are crenellated into the surfaces of their respective walls to a depth of 2 ft. and 3 ft. These crenellations, repeated in the roof parapet (eleven whole and two half battlements, a total of twelve to each side), and the parapets of the twin loggia aisles (five in front and



Villa Sémiramis, St. Raphaël.
Living-room door and surround.

fourteen to each side, adding the halves of the corner battlements together to make wholes) in three-element denticulations, are made of precast concrete blocks. The side walls are dropped down from north to south in three equal uncrenellated steps at a time between pylons 1 and 2, 3 and 4, and 4 and 5, following the fall of the ground. Between pylons 2 and 3 and 5 and 6 the wall-tops run flush some 8 ft. above ground level. Except between 2 and 3, these pylons are spaced about 15 ft. apart. A fifth wall, about 8 ft. high, which has five-element crenellations and is unbroken by pylons, runs, 15 ft. in rear, parallel to the front wall, overtopping it by some 2 ft., for about three-quarters of its length (the end is visible in the illustration, page 402), so as to separate the gravel *parterre* above from the horizontal slope of the drive below. The pylons and gateposts have as sole decoration their eight three-element crenellations (one whole and two half battlements to each face) and triple rectangular intaglio panels bevelled into the sides of their shafts, together with triple rectangular recessments of their capitals on to the shafting.

The position of the gateway at the extreme south-west corner of the "*parc*" (see illustration, page 404) causes rather an uncomfortably sharp turn in from the road on to the steep ramp of the drive, which curves back again nearly as abruptly into the gravel sweep before the front door steps. The gate itself is made of heavy sheet iron, folding back on either side in three leaves, the tops of which are also crenellated. The design of this gate, the panels of which are painted a light grey with the raised vertical and horizontal strip-metal bracings picked out in dull blue, is repeated in uniform light grey in the doors of the back rooms of the ground floor. A particularly fine cactus, trained to grow like a tree, which was obtruding blood-red and wine-purple prickly-pears when the photograph was taken, can be seen in a small bed in the corner behind the open gate. Cacti have also been planted in the narrow beds skirting the ramp wall and the inside of the wall facing the palms of the promenade. In the absence of almost any other form of vegetation, they lend an appropriate Saharan, if not Iraqi, suggestion to the scene when the sun's torrid glare is refracted on the baking white battlements through which they thrust their strange clumps of eliptical fronds, like jack-in-the-box shocks of bristling, green-lacquered boomerangs that seem to have impinged themselves pell-mell into one another, or the barren ground, in default of any other target.

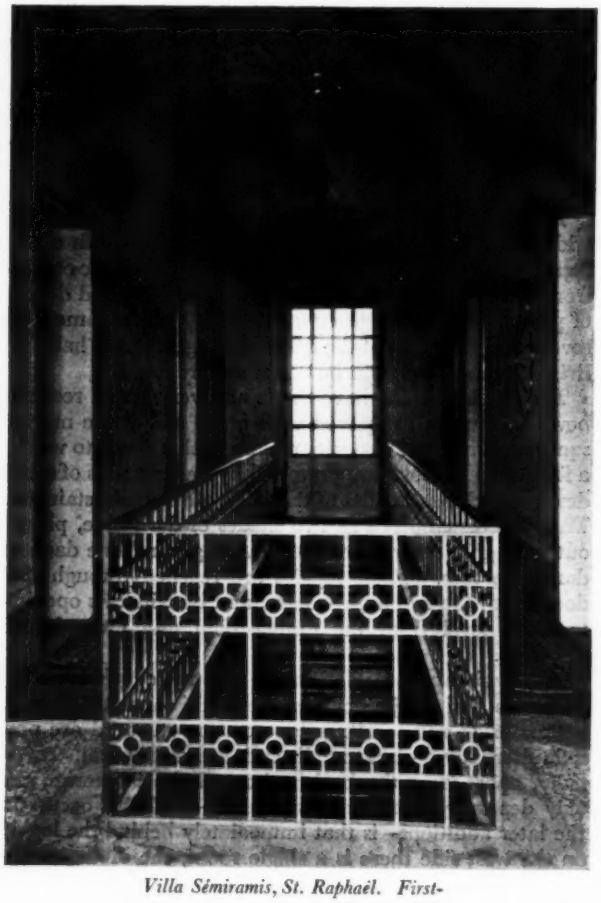
There are no herbaceous "*massifs*." Flowers and shrubs have been reduced to the minimum. In lieu of the famous hanging-gardens of Babylon, narrow and almost unplanted borders, worthier of Bayswater back-gardens, skirt the two side walls, while others surround the angles of the loggias. There is also a large irregularly-shaped bed in the south-west corner of the *parterre*, which is a continuation of that lining the inside of the ramp wall. This, however, as a result of being largely overshadowed by one of the two large umbrella pines that flank the villa on either hand and largely increase the already considerable difficulty of photographing it, is almost as bare as the others. The other tree, a finer, but rather ragged-shaped specimen, very far from being typical of that glorious species in the full-grown beauty of its gracefully-poised canopy, grows all alone in the sweep of the drive immediately to the east of the front steps. Directly in line with the middle of these steps, and close to the ramp wall, is a small hexagonal fountain (illustrated on page 405), with a wide white marble rim almost flush with the ground. This fountain is lined with dark-blue tiles and only plays on those rare occasions when there is a sufficiency of water available for it to play with.

The twelve marble steps, some 15 ft. deep and 30 ft. wide, a base corresponding to the original breadth of the façade, rise about 5 ft. to a 5 ft. × 10 ft. dais before the narrow front door. The door itself, painted light grey and devoid of pull-to knob, knocker or letter-box, is of the same very severe design as that of the doors leading from the hall and living-rooms, which will be described presently.

The loggias, which have single and very broad recessed bevel surrounds, are paved with black and white marble squares. Their twin exterior openings, that reach to within a foot of their floors, are protected by low gilt rails of sober design which repeat that of the grille of the main staircase. They are distempered in two shades of dark blue, picked out with gold and white, and have a ground-line dado of dark-blue tiles. These loggias are reached through side doors from the two living-rooms, and by windows opening to floor level from the dining-room and ground-floor bedroom.

The whitewashed villa itself, constructed throughout, as far as can be judged, in monolith concrete—though hollow brick and local ragstone cement-stuccoed are possible alternatives—is externally entirely symmetrical. Internally, apart from the back stairs and the lavatories, the only departure from exact symmetry—and this occurs in the later additions—is that immediately behind the loggia on the west side there is a single room, the dining-room; while on the east the same space is divided equally between a bedroom and a bathroom containing a w.c. All three roofs

are flat. The original building, as can be seen in the first floor (see illustration page 403) where all the three-panelled openings to east and west are dummies, had no side windows at all. The middle opening on the east of the ground floor and the end opening on the opposite side are likewise dummy windows: a very venial breach of symmetry. The narrow ground-floor w.c. window (also visible in the illustration), though rather inadequate for ventilation, has been cleverly concealed in one of the two recessed vertical strips that occur between the first and second and the fourth and fifth window-openings in rear; and also at each face of the two back corners of the building. Otherwise all doors and windows are symmetrically placed in their several walls, those of the first floor coinciding with those of the ground floor below. The windows of both floors, and even the basement, are divided into equal oblong panes by stout cross-bracings of metal strip, but they open inwards in two leaves after the usual French manner. They are fitted with ordinary slotted-metal Venetian shutters painted light grey. The walls, both external and internal, are a little over 1 ft. thick. The rooms on both floors are about 12 ft. high. Apart from crenellation, the only form of decoration is the triple rectilineal coved bevel surround given to each window-opening, and, also, in a three-sided sense, to the front door. Wherever one of these openings is superimposed above another, the two are enclosed in a single panel unit. This is done simply by making the third, or outermost, bevel underneath the first-floor window identical with that at the top of the ground-floor one. There is also a plain raised band separating the first-floor and aisle window-panels from the crenellated parapets above. In rear, two short gilt rails, of the same design as those spanning the loggia openings, link the aisle parapets to the side walls of the rectangular projection which encloses the first-floor landing of the back stairs.

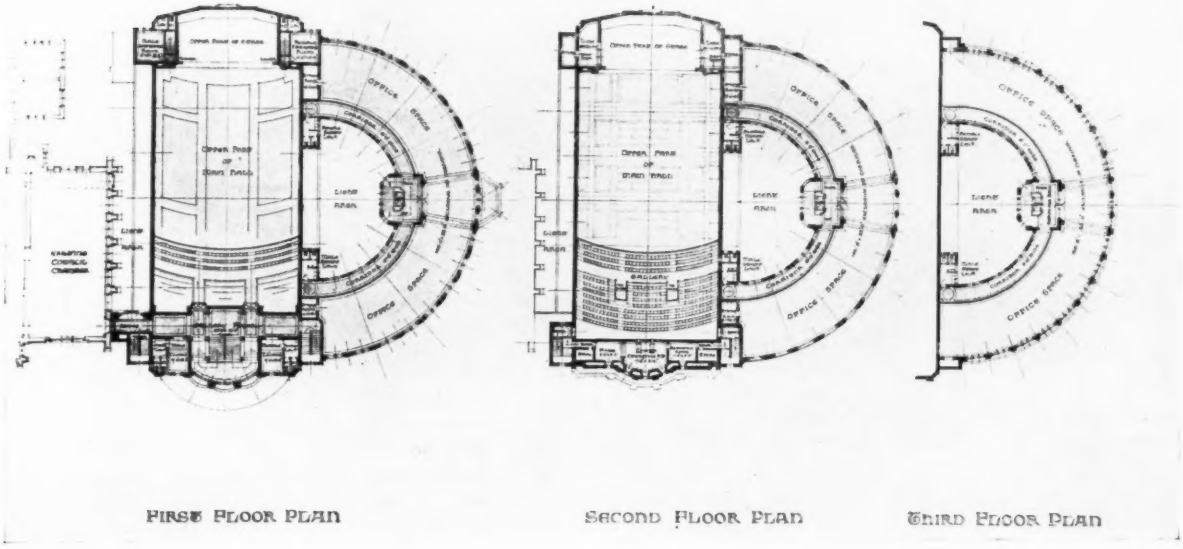


Villa Sémiramis, St. Raphaël. First-floor gangway and staircase cage.

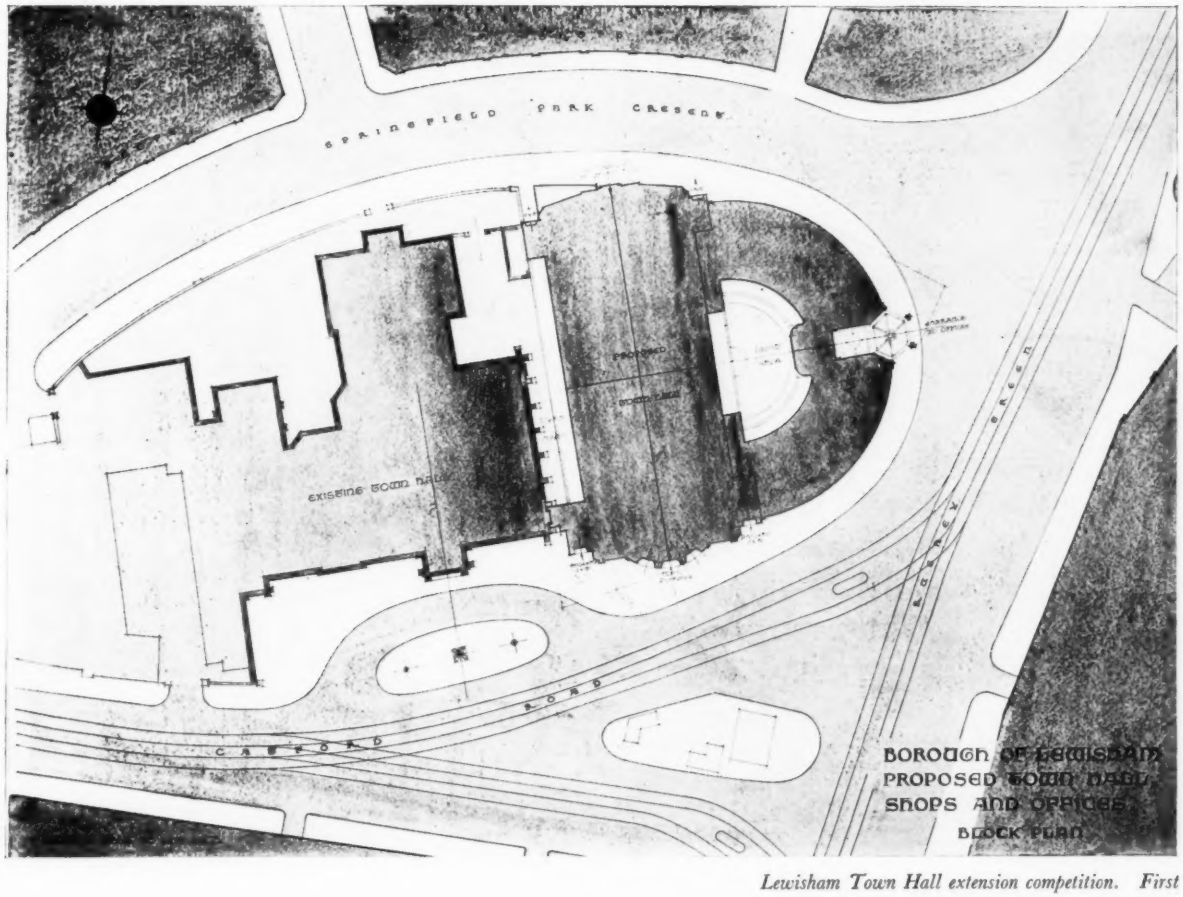
The front door opens into a small square hall paved in marble, on the other side of which, immediately opposite, a steep and narrow staircase of a warm, amber-coloured alabaster leads straight up to the first floor (see illustration page 406). To right and left of the hall are doors leading to the two living-rooms, which in turn open into the two loggias, the dining-room, and the ground-floor bedroom. Behind these living-rooms are, on the west side, a pantry, which communicates with the dining-room, containing the back staircase that leads from the basement to the first floor; and, on the east, a boudoir, which can also be reached from the bathroom. The pantry and boudoir are joined by a passage between the cavity under the main staircase, which is used as a telephone cabinet and a boxroom, and a workroom also looking out on the back wall. All these rooms are laid with parquet flooring. The hall, living-rooms, and staircase are distempered in pale grey, with bands of darker grey and royal blue, picked out with white and gold lining, for the friezes, dados, and window surrounds. The other rooms on this floor are distempered in a uniform pale grey, the woodwork being painted to match. The hall and living-room doors, which are about 9 ft. high and 3 ft. wide, are particularly handsome (see illustration page 407). They open in the middle along the dividing line between twin panels, each of which consists of a single rounded upright bar, or pipe, bevelled in relief, in the centre, enclosed on all sides, except the bottom, by three similar rectilineal bevels, the whole being covered in bright gold leaf with surrounds identical to those just described. The original furniture, which only amounts to a few chairs and settees and a dressing-table or so, is French Empire in style, painted white with the motifs in relief in dull blue.

The first floor is divided into three aisles of equal width. The centre aisle, cross-lighted north and south, consists of a gangway running the whole depth of the building. Most of this gangway is taken up by the ornamental gilt cage of the staircase. Opposite the debouchment of the staircase is a glazed door (illustrated on pages 406 and 408), where the original north window must have been, giving access to a small landing, 5 ft. deep, separating the gangway from the present north window, which is immediately above that of the workroom underneath. This landing, constructed by M. Thévenet, leads down to the ground floor on the west and up to the roof on the east. On either side of the central gangway is a bedroom looking out in front, with a bathroom, just half its size, behind. Two doors on either side of the staircase lead into each of the bedrooms and one into each of the bathrooms. These doors (three on either side) are spaced equally apart and placed opposite each other in pairs. Between them, two to each side of the gangway, with three more on the ceiling above in line with the doors, are sixteen-ray, conventionalized suns in white plaster relief, picked out with gold lining (see illustration, this page). The decoration of this story is in pale blue distemper, relieved with bands of dark red picked out with white and gold lining. The doors, which are side-opening and painted a uniform pale grey, are designed in either two or four panels, each panel enclosing a vertical sequence of a dozen inverted letter V's in plain raised lath (see illustration, page 409).

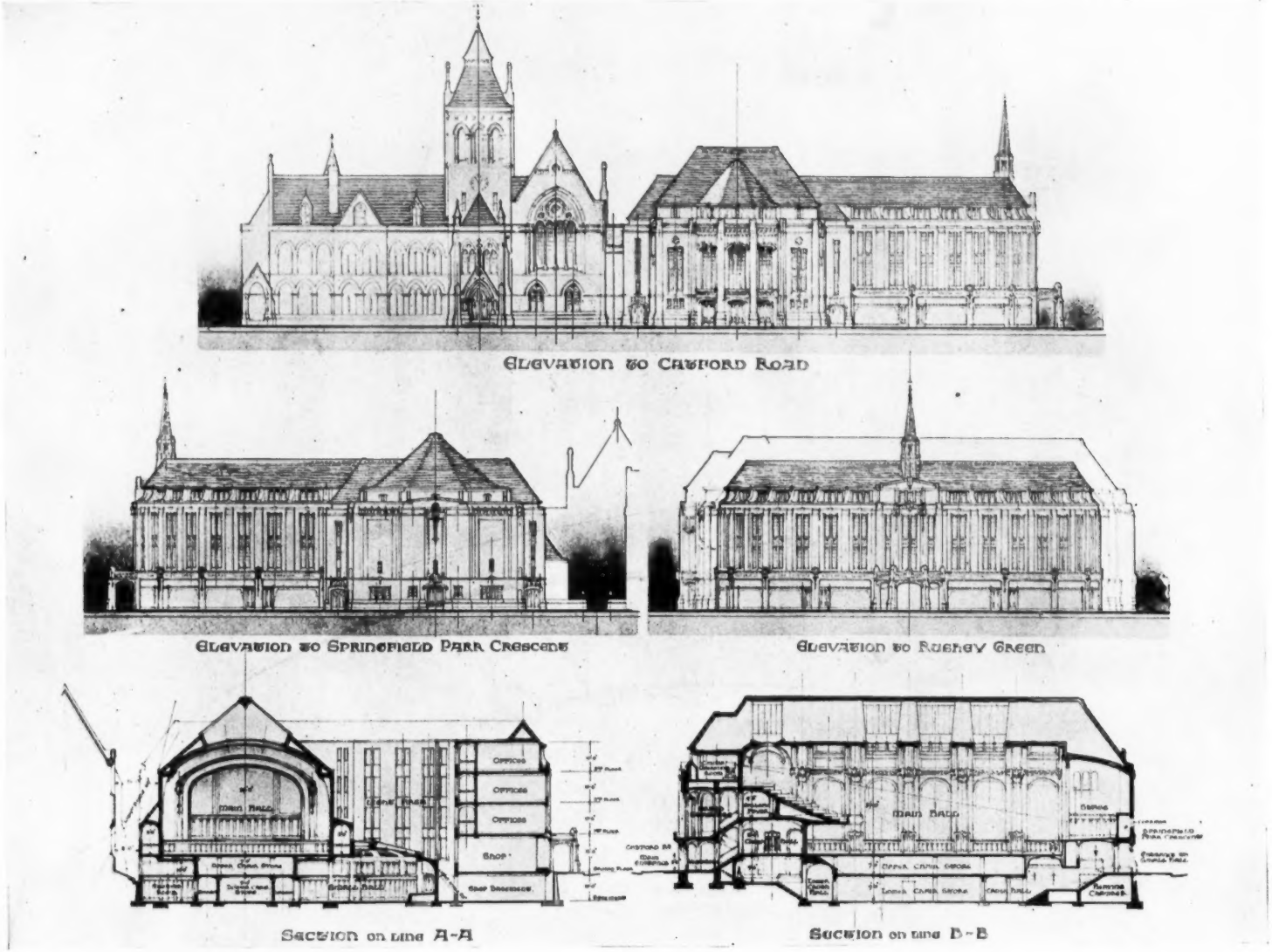
BOROUGH OF LEWISHAM PROPOSED TOWN HALL, OFFICES AND SHOPS.



FIRST FLOOR PLAN SECOND FLOOR PLAN THIRD FLOOR PLAN



Lewisham Town Hall extension competition. First premiated design. By Bradshaw, Gass and Hope.



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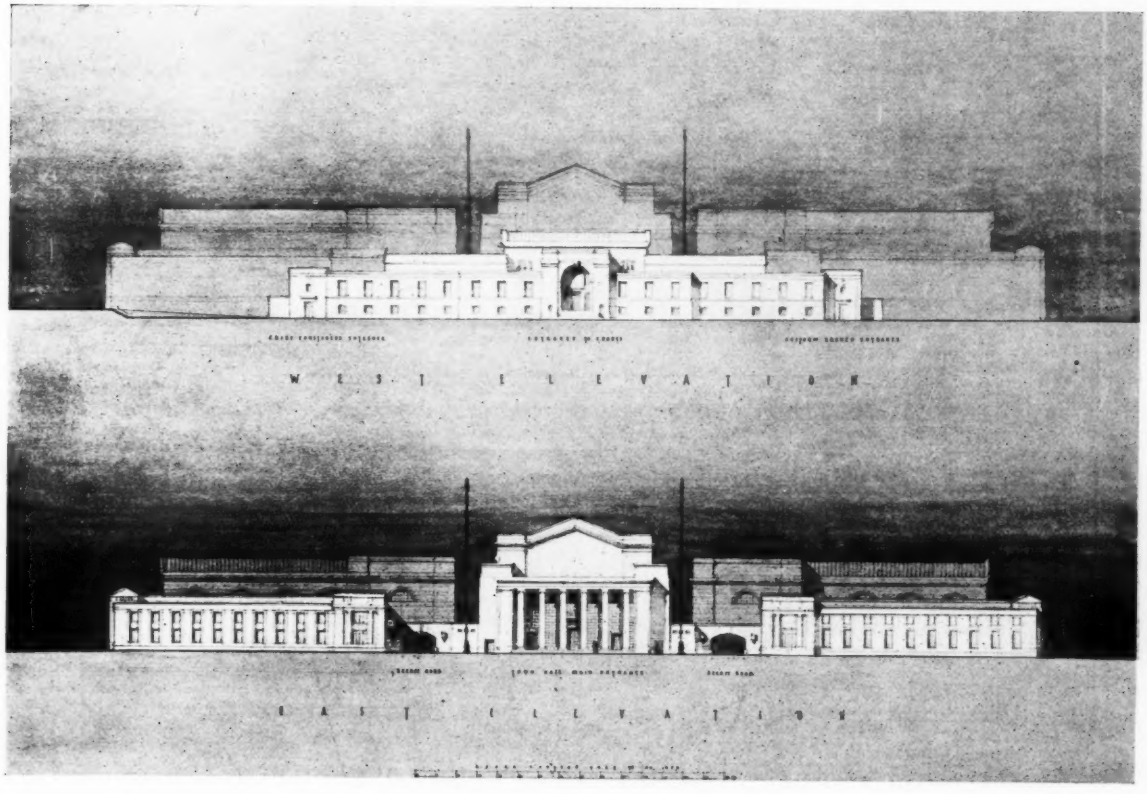
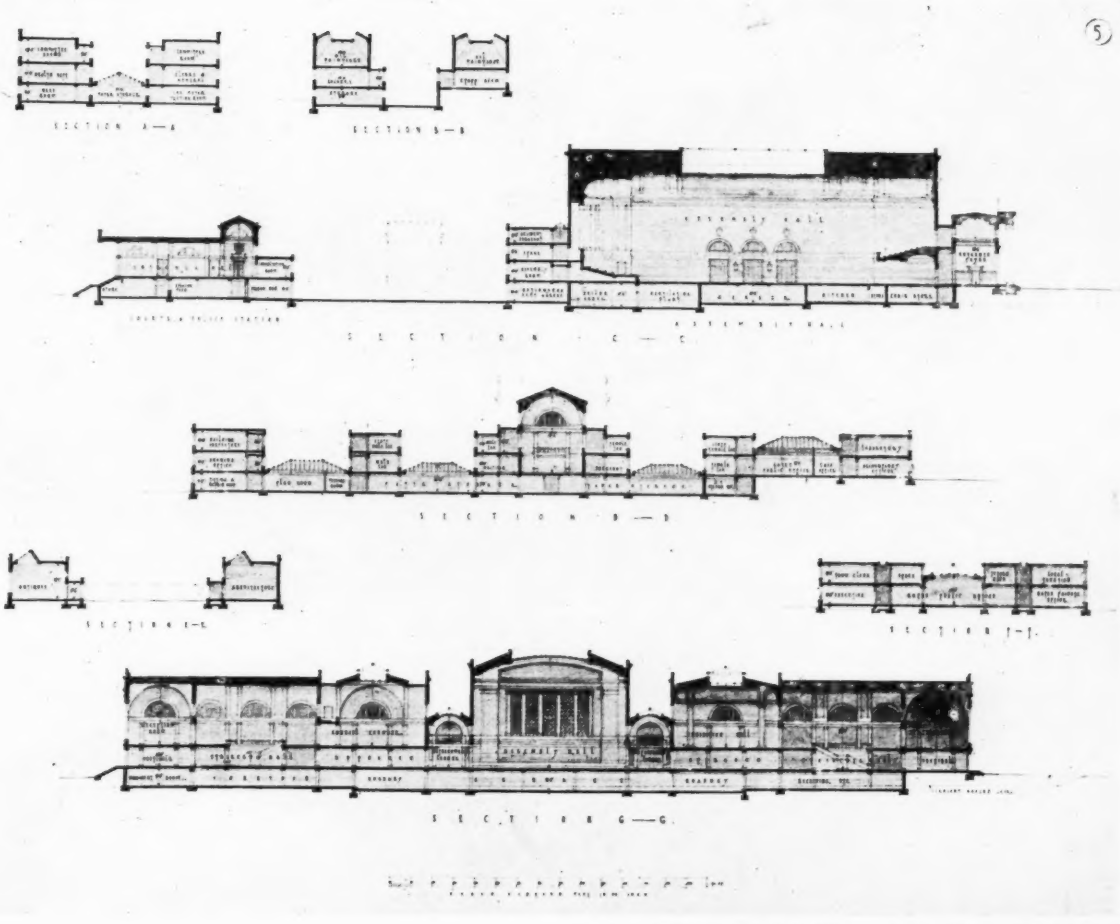
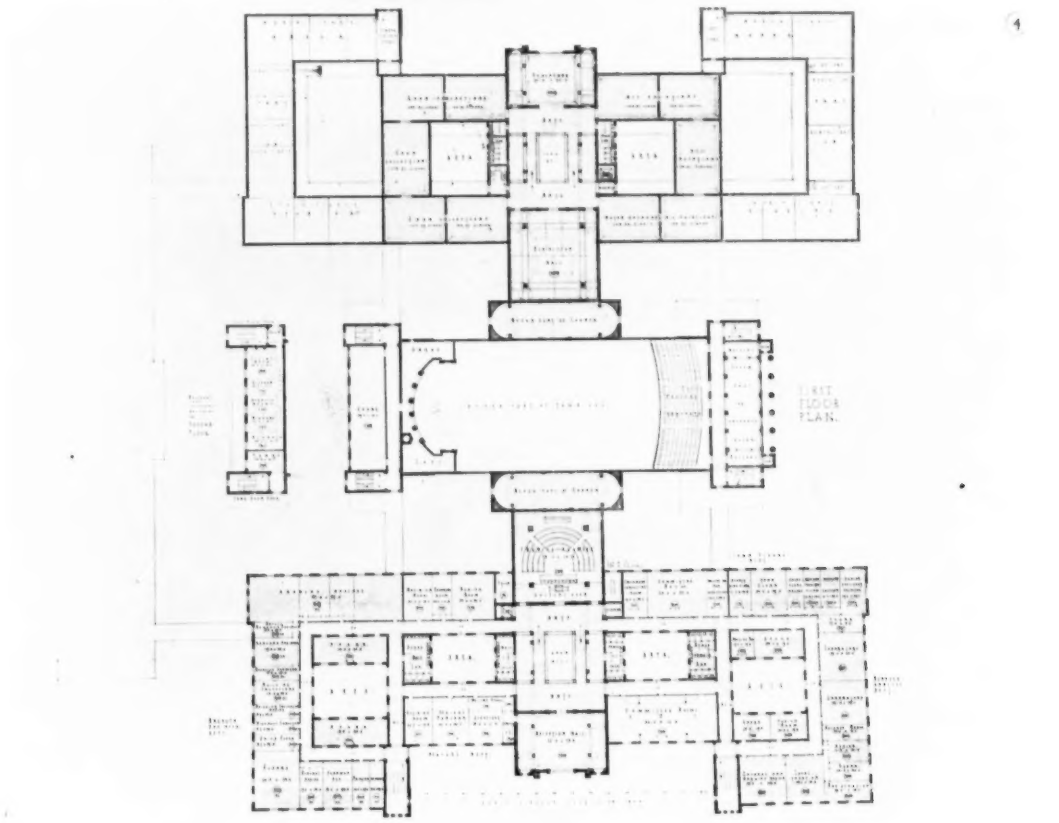




Town Hall, Municipal Buildings and Art Gallery, Southampton. Assessor, H. Austen Hall. First premiated design. By E. Berry Webber. Above, east and west elevations. Below, sections.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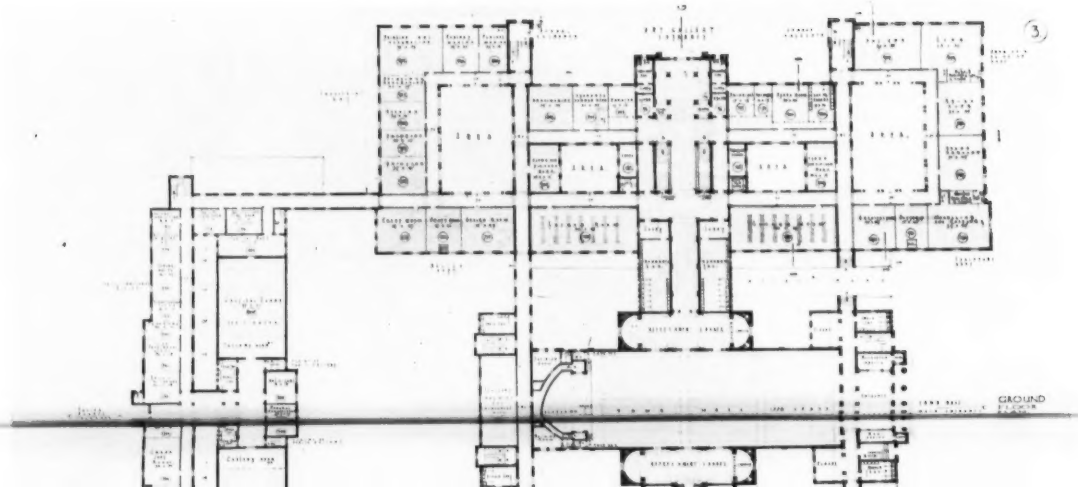
FIRST FLOOR PLAN.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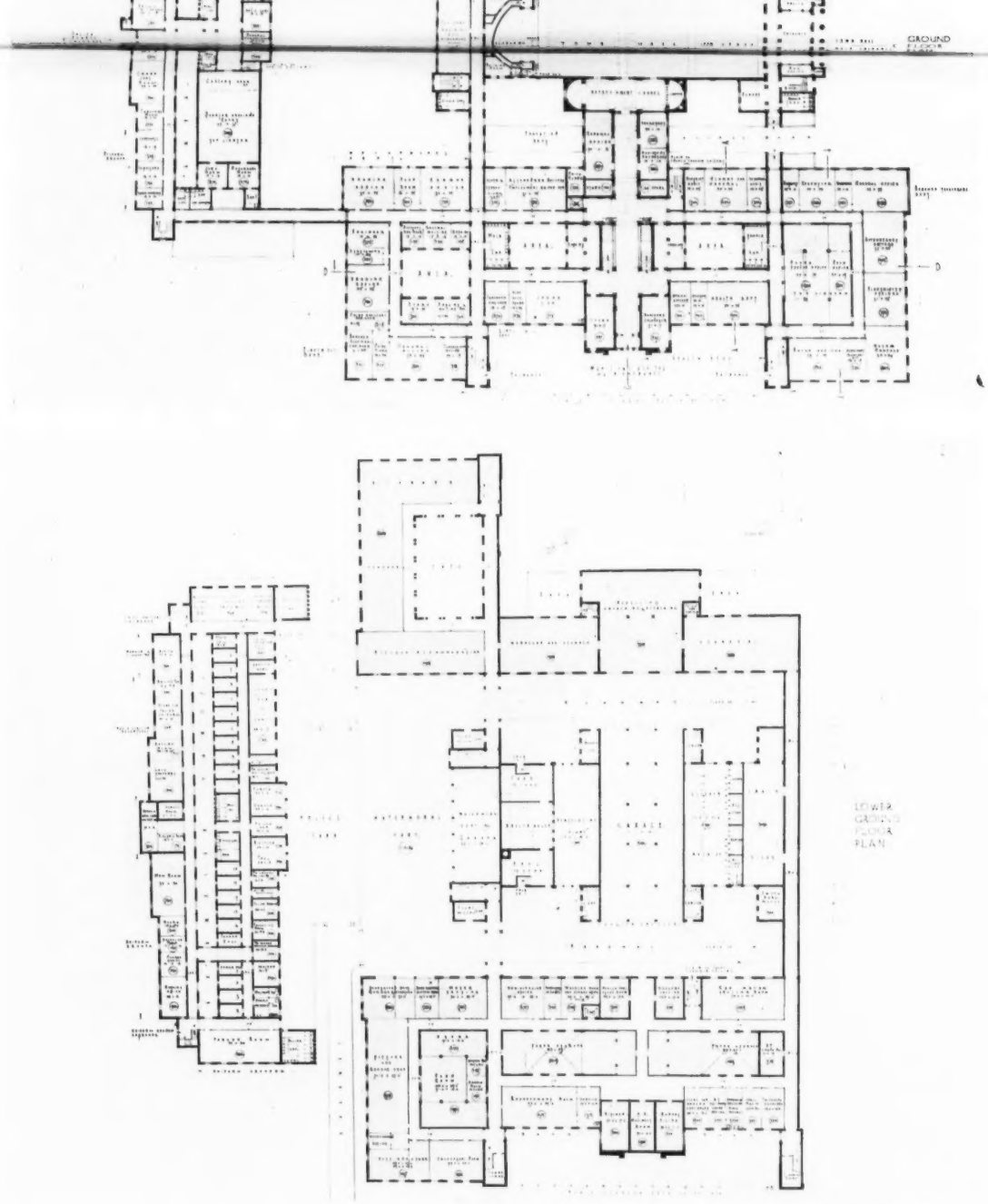
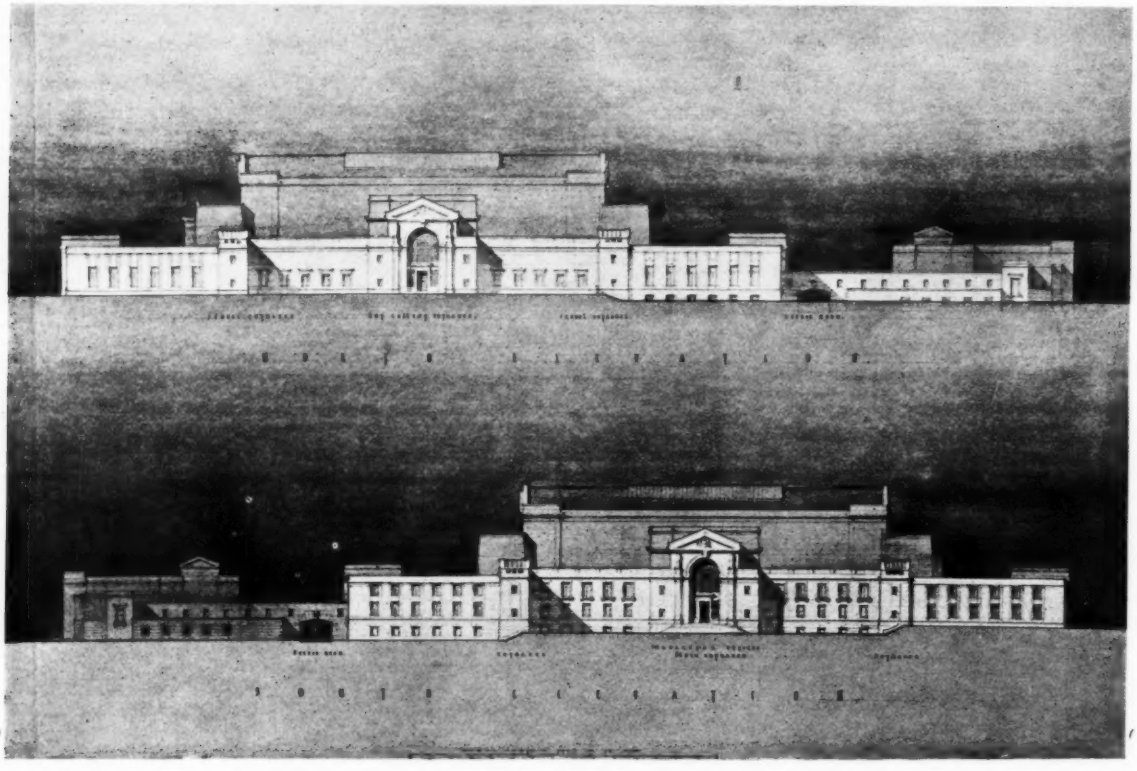
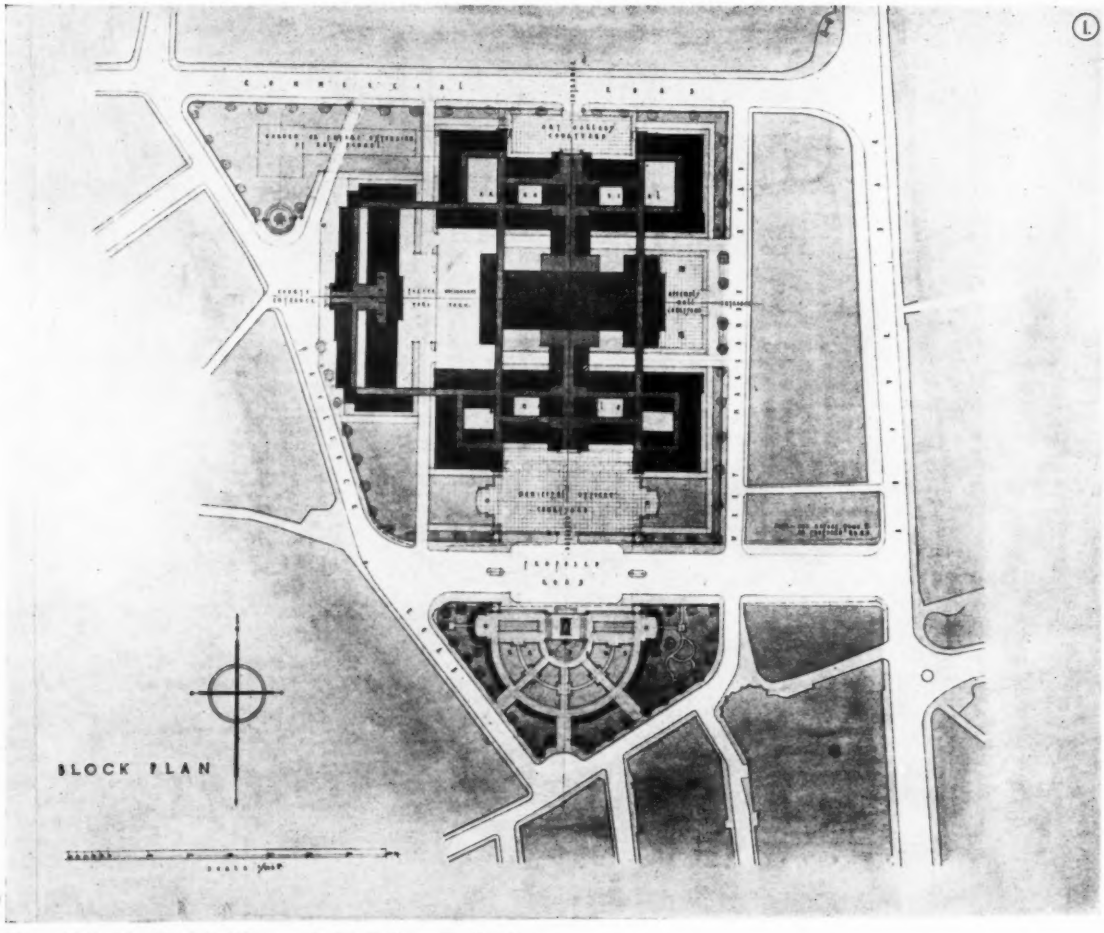
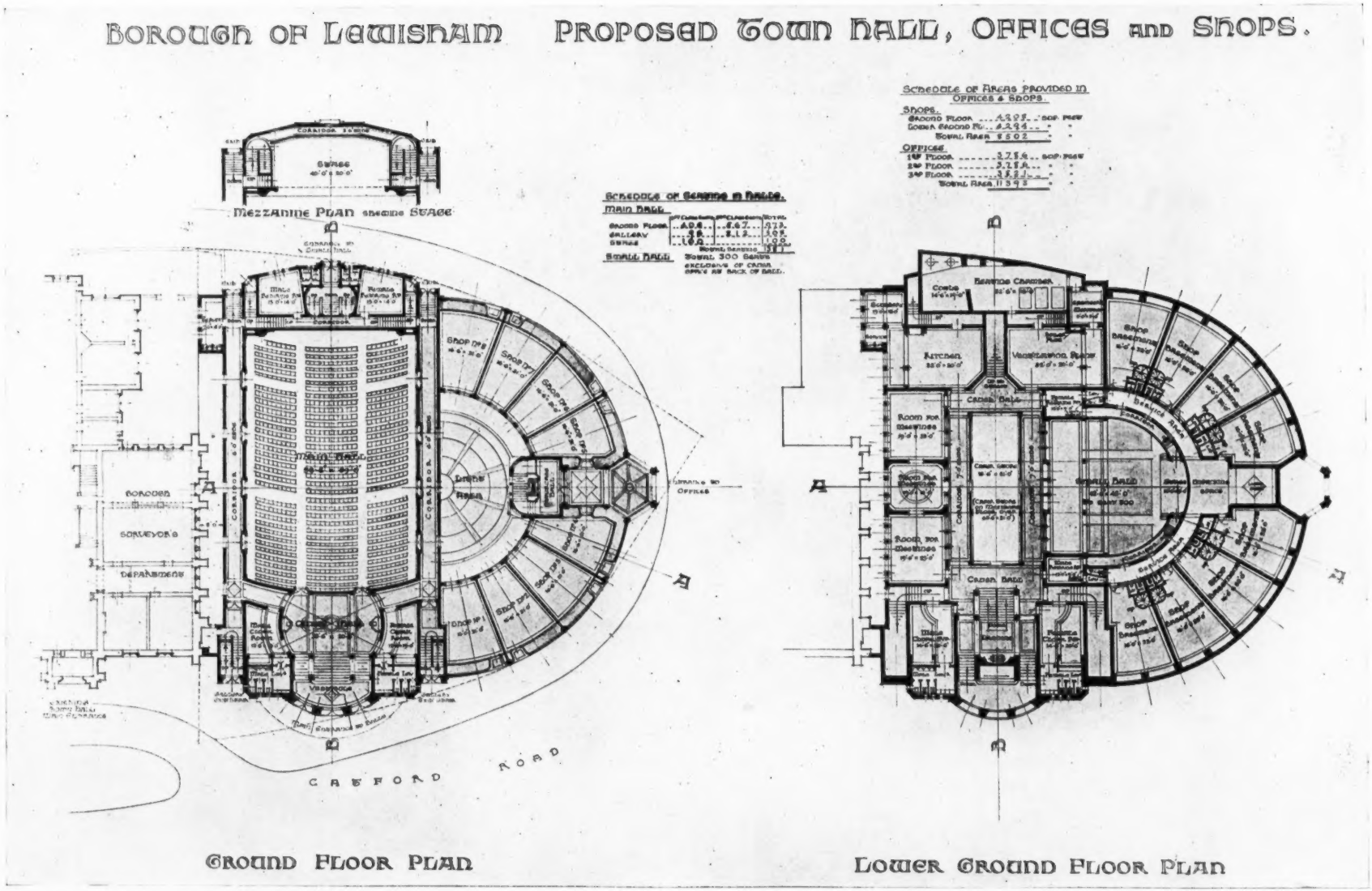


Town Hall, Municipal Buildings and Art Gallery, Southampton. Assessor, H. Austen Hall. First premiated design. By E. Berry Webber. Above, first-floor plan. Centre, ground-floor plan. Below, lower ground-floor plan.





Town Hall, Municipal Buildings and Art Gallery, Southampton. Assessor, H. Austen Hall. First premiated design. By E. Berry Webber. Above, north and south elevations. Below, block plan.



Lewisham Town Hall extension competition. First premiated design. By Bradshaw, Gass and Hope.

The same decorative motif, varied by that already noticed on the front gate, is repeated in the bedsteads and cupboards which are all painted pale grey. The flooring is of granolithic composition.

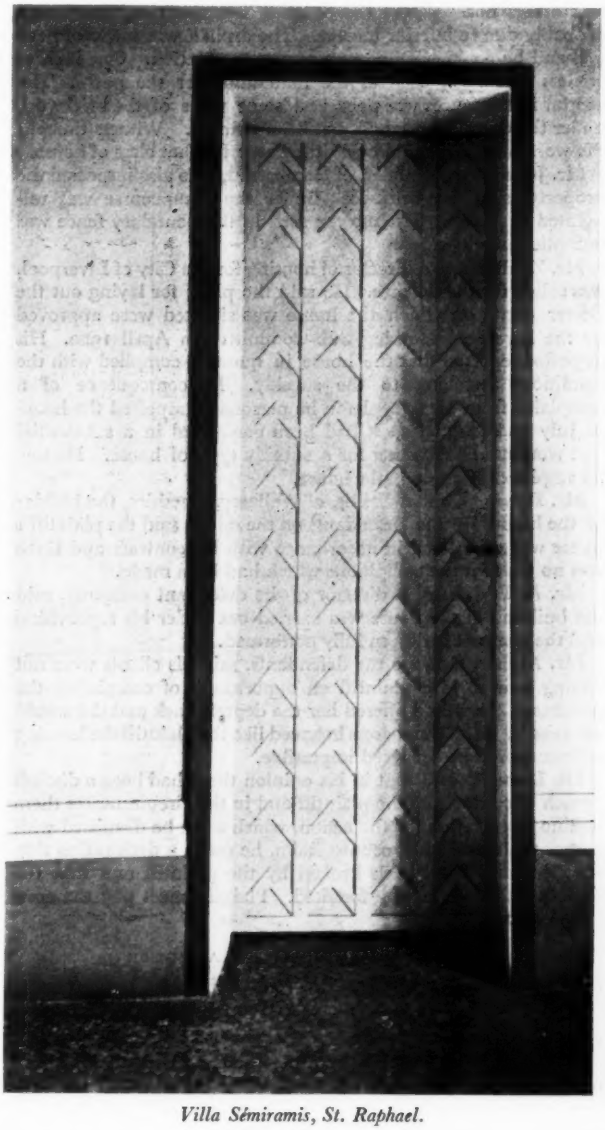
The basement is altogether unsatisfactory. Conterminous with the original extent of the building, it has not been enlarged to the limits of the two aisles and the 5 ft. strip added on at the back as the simplest structural logic must have required. The level of the ground floor is some 5 ft. above the earth throughout. Thus, in order to add the loggia aisles and this extra space at the back, twin concrete rafts had to be cantilevered out from the old floor and a narrower one extruded in rear. These rafts are cross-beamed and rest on inverted T-shaped stanchions of mass concrete; four right-angled blocks for the corners, two intermediate trusses on either side, and four more at the back. In this way a shallow open space was created on either side and in rear, such as is deliberately provided—for very cogent reasons—for houses built in the tropics, or may be found under wooden bungalows. It is into these two dismal cavities that all the servants' bedrooms look out; and even then the cavernous light dimly visible some 15 ft. away is more than half blocked out by the bulk of intervening stanchions, and, beyond them again, by the garden walls another 10 ft. off. The kitchen and laundry windows, however, being at the back, are not more than 5 ft. away from daylight.

A short flight of steps at the back of the house leads down to the middle of a narrow cemented court, 30 ft. long and 5 ft. wide, with a headway of about 8 ft. under the ground-floor windows. A little to the west of these steps are the back stairs that lead up to the pantry and first-floor landing, and down to sub-basement coal and wine cellars. The back door, under the workroom window, opens into a laundry, whence doors lead off to a small combined kitchen and scullery on the east side; the room housing the central heating and hot water boilers, with inset servants' w.c., to the west; and a sort of central lobby to the south. From this square lobby four doors lead off to the four servants' bedrooms, one on either side, and two larger ones to the south. The garage, a plain concrete box, about 9 ft. by 21 ft., opening to the east, which was added by M. Thévenet, lies opposite the kitchen steps.

It could be wished that so much had not been sacrificed to absolute symmetry in this villa. There is a plethora of useless doors. Many of the rooms do not appear to have been planned for any definite use, and there is a lack of functional differentiation in the rather mechanical way in which the proportions of the rooms on the first floor coincide with those underneath. There are, in fact, at once too many and too few rooms. Moreover, the lighting, especially on either side, is quite insufficient for winter, though doubtless the relative obscurity of the ground-floor rooms is appreciated during the sultry summer months. It is obvious that it is too unpractically planned to be otherwise than a difficult house to run from the housewife's point of view, while servants are bound to resent the gloomy accommodation provided for them. Though there are three bathrooms (one suspects that the ground-floor bedroom and bathroom were converted to these purposes for lack of any better way to utilize them), each of which has its own bidet and washing-stand, there is only one w.c. for both floors. The imposing flight of steps before the front door is rather in the nature of an anti-climax, for the door itself is too narrow, and altogether too inconspicuous in colour and design, to strike the emphatic note which its position requires. The original water-spouts may be correct as to style, but their design is primitive without being decorative. On the other hand, the house is well and solidly built, both externally and internally, so that its cost of upkeep must be very small.

A passing regret may, perhaps, be expressed that the Villa Sémiramis was not built in more isolated surroundings, a kilometre or so farther along the coast to the east, abutting directly on to one of the many enchanting little bays near Boulouris. This would have set off the contrast of its impressive Mesopotamian whiteness, serrated against the dazzling blue sky, with a uniform background of umbrella pine boscage and a foreground of ruddy bauxite rocks steeped in the yet bluer sea, far more felicitously than a jumble of "*station climatérique*" surroundings of the usual seaside promenade.

The writer's acknowledgements are due to M. Thévenet of Fréjus, and to Colonel F. G. Skipwith of the Banque W. F. King at St. Raphaël for the facilities they so readily afforded him for viewing the building.



Villa Sémiramis, St. Raphael.
First-floor bedroom door.

LAW REPORTS

ALLEGED DEFECTIVE CONSTRUCTION

Appleton v. *Amalgamated Properties, Ltd. Chancery Division. Before Mr. Justice Astbury*

A plea of defective construction of a house was put forward by Mrs. E. A. Appleton, of Rosthwaite Road, West Derby, Liverpool, in her action against the Amalgamated Properties, Ltd., of Liverpool, for a declaration that defendants were not entitled to terminate the contract to sell her a house in Alvanley Road, Liverpool, and that she had not forfeited her deposit.

For the plaintiff, Mr. Felix Holt, an architect, said he had inspected the premises, and in his opinion the admixture of mortar was bad; the woodwork was not properly finished in the sense that the knotting was unsatisfactory; the wallpaper was damp and the asphalt paths required relaying on a suitable foundation. The dampness of the wallpaper was either due to a bad dampcourse or to some other reason, and the reason ought to have been discovered before it was passed for the subsidy.

Mr. Fredk. Ernest George Badger, civil engineer and architect, stated that some of the windows had been pointed satisfactorily and others not. Where the pointing was unsatisfactory it was probably due to inferior mortar. The asphalt was made of poor tar, and he could not find any proper foundation. One inch of cinders had been used as the foundation for the paths. The mortar in the fences was poor and some parts of the brickwork under the dampcourse had not been pointed. Witness thought the workmanship should be a little better for that class of house.

Mr. John Norris, builder, of Hampstead, who also inspected the property, said the brickwork under the dampcourse was unpointed in places. The mortar used in the boundary fence was exceptionally poor.

Mr. Z. H. Keay, a director of housing for the City of Liverpool, was called for the defence. He said the plans for laying out the Oliver estate on which the house was situated were approved by the Liverpool Housing Sub-Committee in April 1920. His inspector reported that the house in question complied with the conditions attaching to the subsidy. In consequence of a complaint from Mrs. Appleton he personally inspected the house in July and found that it had been completed in a substantial and workmanlike manner for a subsidy type of house. He saw no suspicion of damp in the house.

Mr. Edward Mathew Bellis, of Wallasey, Cheshire, the builder of the houses for the defendants on the estate, said the plaintiff's house was completed in accordance with his contract and there was no truth in the complaints which had been made.

Mr. A. F. Jefferis, a director of the defendant company, said the building of the house was carried out under his supervision and the contract had been fully performed.

Mr. Archer, K.C., for the defendants, said his clients were not willing now to give plaintiff an opportunity of completing the purchase. They had offered her the deposit back and she would not take it. If all purchasers behaved like the plaintiff the housing scheme would be rendered impossible.

His Lordship said that in his opinion there had been a distinct breach of contract by the plaintiff and in the circumstances there was no justification for the action, which must be dismissed with costs. On defendants' counterclaim, he made a declaration that the agreement had been broken by the plaintiff and that the deposit had been rightly forfeited. Plaintiff must pay the costs of the counterclaim.

ALLEGED DAMPNESS OF A HOUSE

Heselton v. *Paddon. Chancery Division. Before Mr. Justice Clauson*

The question at issue in this case was as to an alleged warranty that a house was dry.

The action was brought by Mrs. Blanche Gertrude Heselton, of Gidley House, Kingswear, against Mr. John Patrick Paddon, naval pensioner, of Kingswear, seeking specific performance of his agreement to buy a cottage called the Sakesal, Kingswear, for £350. Defendant replied that the plaintiff made a representation which amounted to a warranty that the house was dry. This plaintiff denied, saying that she pointed to damp behind a curtain and said the back wall was damp, as it was cut out of the hillside rock. The walls were thick, but the prevailing south-west wind would drive in the prevailing rain.

Mr. Harry Charles Goss, chartered surveyor, of Torquay, called for the defence, said the damp was not confined to the back wall; and Mr. Alfred Hill, architect and surveyor and associated member of the Institute of Civil Engineers, of Torquay, declared that no house of this type at Kingswear was watertight. They were occupied, but not in the basement. The walls were 2 ft. thick.

His Lordship, in entering judgment for the plaintiff, held that the defendant clearly saw and knew that the back wall was damp and that the plaster was defective. That being so, he could not establish a case that he bought only on a warranty that the house was free from damp.

Mr. Byrne, plaintiff's counsel, said his client having won her case, would cancel the contract, if the defendant paid the costs of the action.

THE R.I.B.A. INTERMEDIATE EXAMINATION

The Intermediate Examination qualifying for election as student R.I.B.A. was held in London from May 11 to 17, and in Manchester from May 11 to 16. Of the 126 candidates examined, thirty-three passed and ninety-three were relegated. The successful candidates are as follows, the names being given in order of merit as placed by the examiners:

Harding, D. E.
Fancott, W. E.
Blackett, W. M.
Barnes, V. C.
Maybury, M.
Day, C. S.
Adkins, F. W. C.
Farrell, J. E.
Pittaway, H.
Lumley, D. F.
Hay, G. S.
Acworth, W. B.
Barker, L. W.
Benoy, W. G.
Clayton, W. P.
Cunliffe, E. J.
Gillett, M.
Gray, A. S.
Jacobson, L. S.
Kean, J. E. R. G.
Knighton, P. H.
Lee, J. W.
Meed, H. L.
Padmore, R. B.
Pescod, H. G.
Smith, A. L.
Tadman, J. A.
Tanton, H. J.
Townsend, J. B.
Twigg, W. L.
Ward, L. B.
Wilbond, F. S.
Willson, G. H.

NEW INVENTIONS

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

LATEST PATENT APPLICATIONS

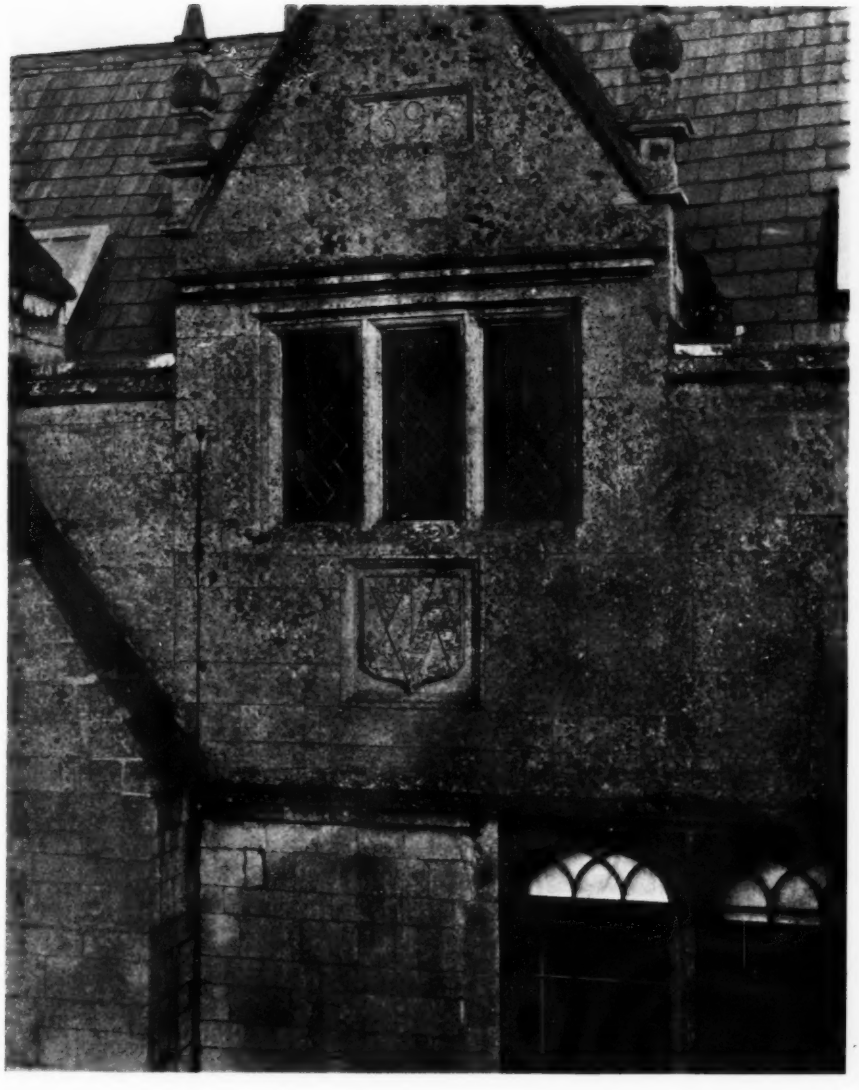
24339. Barnes, A. H., and Shelbourn, E. T. Reinforced asbestos-cement, &c., sheeting. August 23.
24216. Glover, M. L. Production of concrete. August 23.
24060. Roberts, W. B. Treads for stairs, &c. August 21.
24381. Walker, H. S. Underfloor duct-systems. August 24.

SPECIFICATIONS PUBLISHED

295819. Kress, F. Apparatus for the determination of the cuts of roof jackrafters and the like.
282033. Moss, H. G. Means for automatically opening and closing gates and doors.

ABSTRACT PUBLISHED

293591. Napoli, A. Di, 9 Via Sommacampagna, Rome. Floor and roof beams.



ENGLISH PRECEDENT

31 *Rushton Hall, Northamptonshire. This gable, which is on the west front, resembles those in the court-yard, but it has a panel over the window with the date, 1595, and another, below the window, containing Sir Thomas Tresham's arms impaling those of his wife. The apex of the gable has a finial similar to those at the springing. To the left is the start of a large chimney-stack. The lower window is modern. The Tresham family was ruined through implication in the Gunpowder Plot, and the house was bought by the Cokaynes, who added some gables (with their arms) in the court-yard.*—[J. A. GOTCH.]

THE ROYAL COLLEGE OF ART EXHIBITION

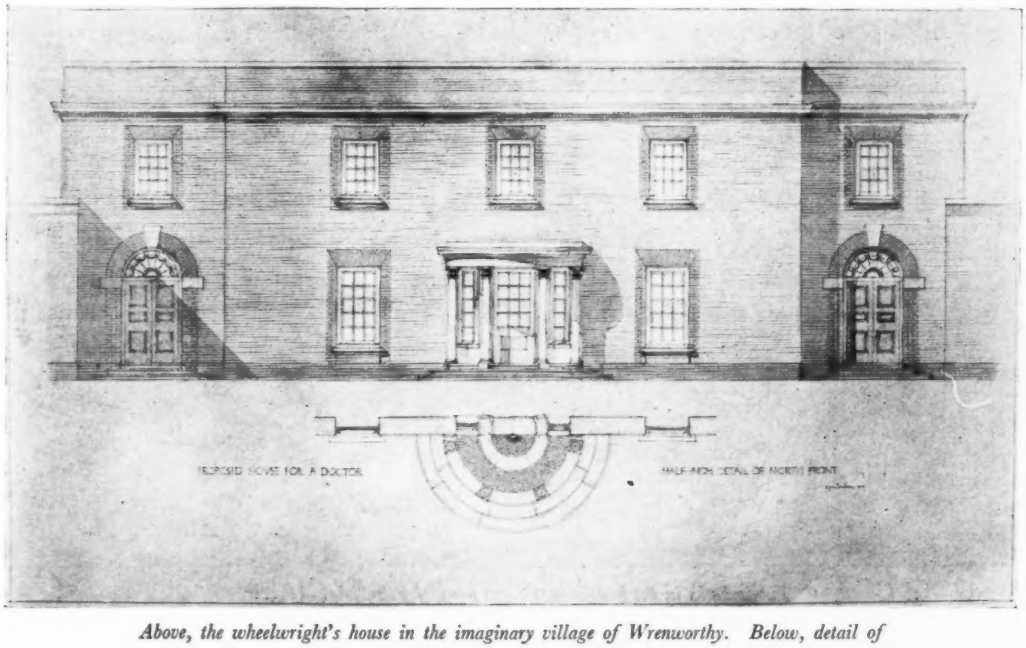
[BY W. G. NEWTON]

FOR the last five years or more Professor Hubert Worthington, at the Royal College of Art, South Kensington, has been engaged in implanting a love and some knowledge of architecture in the hearts of art students. These, for the most part, were young men and women who had won scholarships in the various fields of painting, sculpture, engraving, pottery, metalwork, and so on, and came up to London eager to devote themselves entirely and wholeheartedly to that particular branch of art which most interested them. An acquaintance with architecture has always been a compulsory part of the Royal College curriculum. As such it has been only natural that for the most part students should consider it a burden, an obstacle to be surmounted before he can really get to work. This has implied a prejudice against architecture, as a disagreeable necessity. It has been somewhat in the same position as the compulsory divinity examination for all honours students at Oxford.

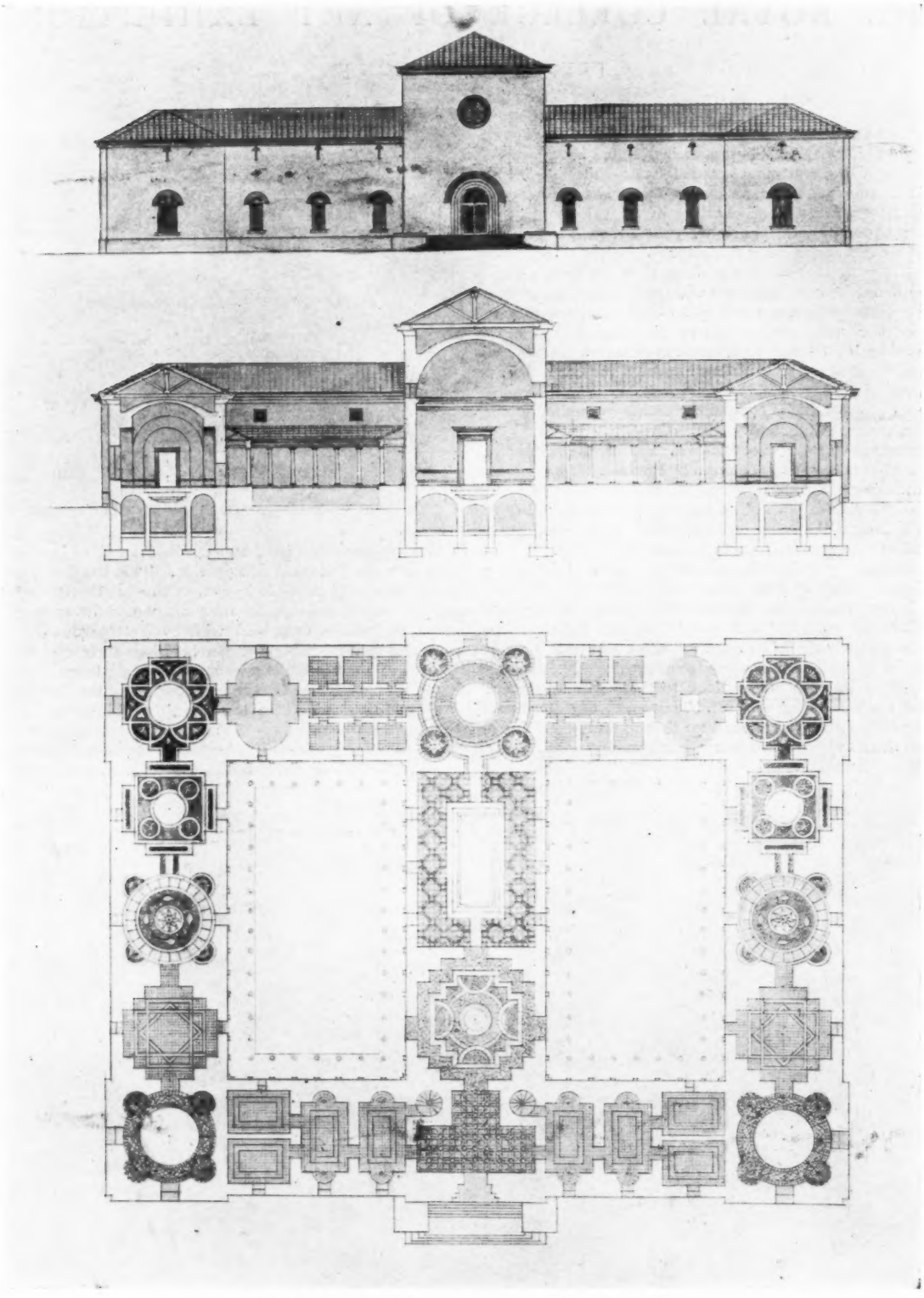
It is not too much to say that this whole attitude to the study of architecture has been entirely changed by Professor Worthington's way of attacking the problem. Suspicion and opposition have been converted into enthusiasm and co-operation, and it is fitting that there should be some tribute paid to the work thus accomplished, and some record of the methods adopted.

It must be clearly understood that the architectural side of the Royal College of Art, at least as far as the great majority of the students is concerned, is not an architectural school in the same sense as are the schools "recognized" by the R.I.B.A. Its purpose is not to train in architecture those who will become architects, but to give some knowledge of architecture and some sympathy with its aims and outlook to those who will either practise or teach other forms of art. Thus much of the criticism against it which has been audible from time to time, even among those who should have known better, has been misconceived and quite wide of the mark.

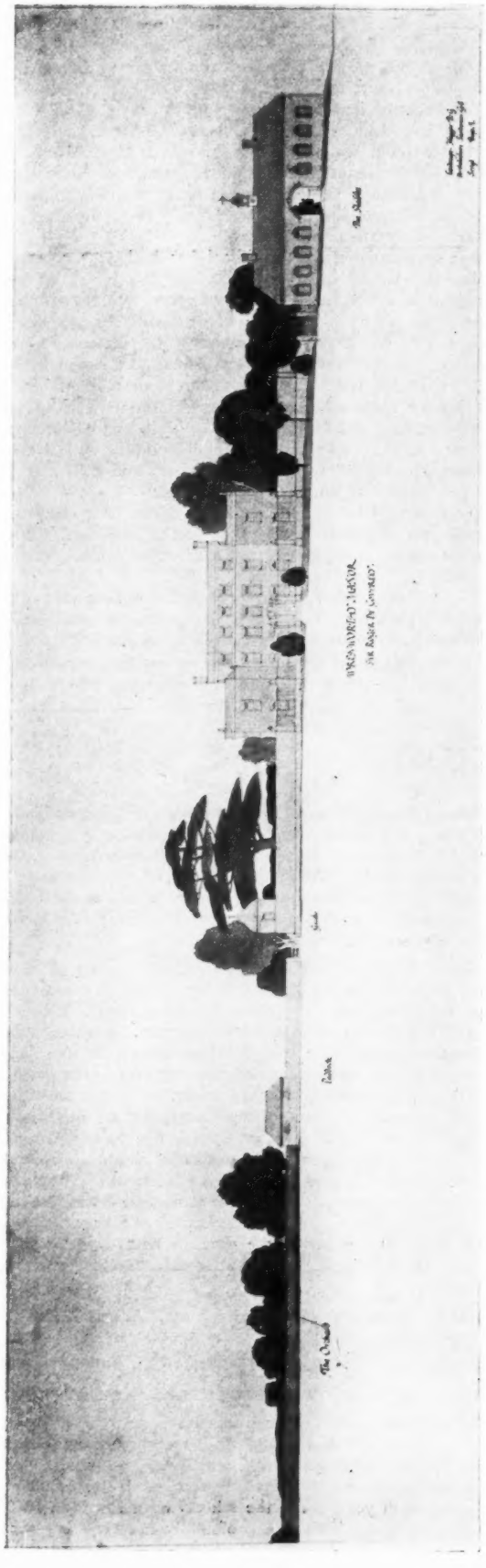
Worthington's method has been in a word to inculcate and stimulate the historical imagination. This has been, perhaps, rather especially valuable in view of the fact that the education of the students has been for the most part on other lines. By a series of lectures combined with superintended visits to the museums and available London buildings their eyes have been opened on a world full of interest and hitherto largely unexplored —the intimate life of Greece and Rome and the Renaissance in Italy and England. They have been shown how, out of this life —the village community of England, for example, or the hill-town of Italy—grew forms of building expressive of their varying needs. And arising out of this method of instruction, the students

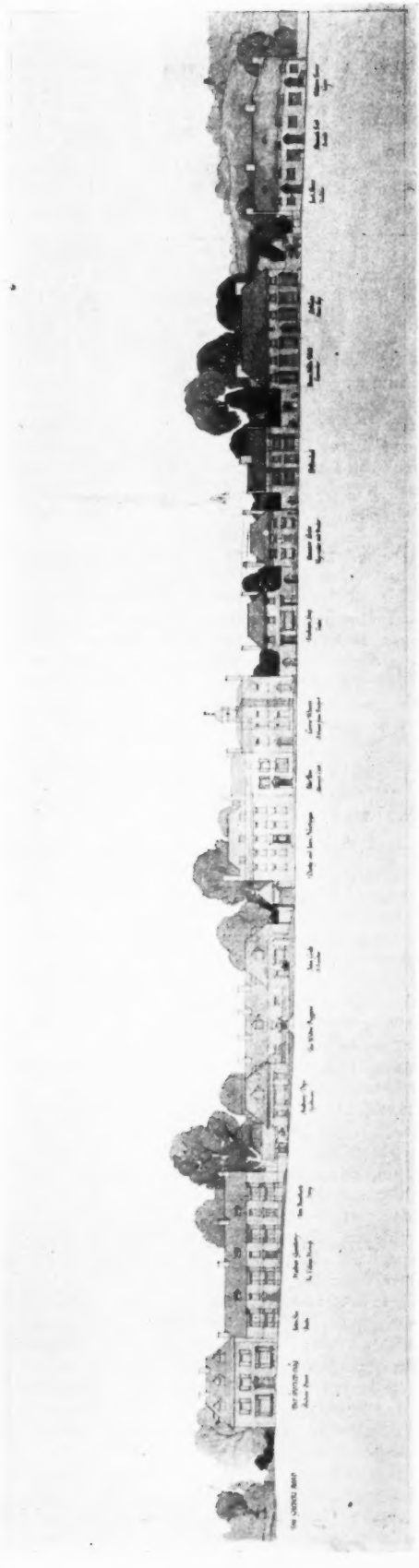


Above, the wheelwright's house in the imaginary village of Wrenworthy. Below, detail of a doctor's house. [*From the exhibition at the Royal College of Art School of Architecture.*]



Public baths in the imaginary Roman town of Vitruvium. [*From the exhibition at the Royal College of Art School of Architecture.*]





Two elevations of the imaginary village of Wrenworthy. [From the exhibition at the Royal College of Art School of Architecture.]

have, in co-operation, designed the constituent elements of similar towns and villages. Life has been given to these exercises by endowing the town or village with inhabitants, and a close inspection of the plans and the explanatory monograph dealing with Wrenworthy, the brick village of the days of Queen Anne and John Gilpin, or the Cotswold village of Luttington on the Rothy, will reveal a number of those delightful touches of humour and humanity which lift these exercises from the region of paper performances and give them a vitality and sparkle of their own. Many hands have been at work here, and those familiar with architects will notice many a happy thought and sly allusion.

The various buildings, the village smithy, the almshouses, the church, the manor house, the inn, or, in other cases, the convent, the prison, the cardinal's palace (of course, he rode on a white mule), or the baths, shops, temple, town gates, are divided up among the pupils according to their diversity of gifts, so that the whole scheme involves team-work, and the dovetailing in of one with another, in a way that has been found particularly valuable in dealing with a large number of students (their numbers vary from about ninety to 100), most of them at the outset quite ignorant of anything to do with architecture. It must not be supposed with all this that modern methods and modern problems have been ignored. In fact, the early introduction of the students to their subject is through the work of some of the outstanding figures of our own day, whether here or abroad. But it has been felt that the peculiar circumstances called for a type of training different from that applicable to an ordinary school of architecture. Here the time is so much shorter (one year, in fact), and the interests, attainments, and subsequent intentions of the students, so different that it has seemed best to ground them thoroughly, so far as time permits, in those elements of directness, simplicity, harmony, and proportion which may be said to be common to the architecture of most of the periods of the past. Modern methods of artistic expression may no doubt be encouraged profitably when you are dealing with students who have had four years to study the elements. But the whole scope of this course for the greater part of the students can only be preliminary. Time and the occupations of the students themselves allow nothing more. And judged as such an introductory course its success is evident, both from the quality of the drawings shown at this and at previous exhibitions, and from the enthusiasm which the successive schemes have occasioned among those naturally inclined to be impatient of whatever might be thought to stand in the way of their specializing in their own particular art forms.

One great advantage the school has had over courses of a similar immaturity in other places, and that is the standard of draughtsmanship natural to those who have won art scholarships. As students' work the drawings are remarkable for care, sympathy of line, and directness of statement. No rendering tricks are encouraged here. And this is wise. It has been especially important, in dealing with students to whom, or to most of whom, drawing or method of presentation is the essence of artistic expression, to guard against the idea that in architecture method of presentation is of any importance comparable with the importance of thinking in terms of bricks and tiles and stone and timber and space and solid and balance and order.

The task may be compared to that of teaching essay writing to masters of penmanship, who have had to be shown all the time that the essence of any essay is what is written, not how the letters are formed.

If it is of importance, as it surely is, that those who are to practise or to teach the other arts should have a sympathetic understanding of architecture, the work of the last few years at the Royal College of Art has, in spite of the limitations necessarily involved, been a work for which architecture and architects should be grateful.

LITERATURE

THE DEVELOPMENT OF EUROPEAN ARCHITECTURE

One of the most recent books of architecture of the "popular" type comes from the pen of Mr. G. H. Reed, M.A. It comprises thirty-two pages, and contains eight full plates and sixty smaller reproductions in the text of famous European buildings and details from photographs and drawings, and from sketches by Walter M. Keesey and Gordon Home. With so wide a subject and with so limited a space at his disposal the author has wisely confined his attention to one aspect alone of the growth of architecture: the development of architecture in Europe from the time of the early Greeks down to the present day, with special reference to the buildings of our own islands. In tracing the development of architecture during this period, he follows the grouping adopted by Ruskin, namely, i: the lintel group (column and pediment); ii: the round arch group (vault and dome); and, iii: the pointed arch group (vault, gable, and buttress).

His remarks on the buildings of Ancient Greece, the cradle of European architecture, are supplemented by illustrations of the Lion Gate, Mycenæ; the Parthenon, Athens, by Ictinus and Callicrates; by details of ornamentation and the Orders, and a photograph of part of the Parthenon frieze, by Phidias, which went round the top of the cella. Roman architecture is depicted by illustrations of the Parthenon, the Colosseum, and the Arch of Titus; and Byzantine by Sta Sophia, Constantinople. The same method of presentation is adopted in every section of the book: architectural details, occasional plans and sections, and one or two illustrations of the best of the surviving buildings of each particular style being used to amplify the text. Thus, Anglo-Saxon architecture is represented by the Tower of Monkwearmouth Church, probably the most authentic specimen of Anglo-Saxon work that remains, Earls Barton Tower, Northamptonshire, and the wooden church at Greenstead, Essex; Norman by the arches of the north transept, Winchester Cathedral, and the west front of Iffley Church, Oxfordshire; Gothic by Salisbury Cathedral; Decorated Gothic by the Angel choir, Lincoln Cathedral; Perpendicular by the cloisters of Magdalen College, Oxford; Tudor by the gateway, Hampton Court, and Henry VII's Chapel, Westminster Abbey; Renaissance by the Banqueting House, Whitehall Place, Bow Spire, St. Mary-le-Bow, London, and St. Paul's Cathedral; and revived Gothic and revived Classical architecture by the Houses of Parliament and the British Museum.

These illustrations form a most instructive feature of the book owing to the captions provided by the author. A typical case in point is the illustration of Henry VII's Chapel, Westminster Abbey. Here one is asked to note: i: the roof, a notable specimen of fan tracery; ii: the strong vertical lines (mullions) in the windows; iii: the windows, which are very large, occupying most or all of the spaces between the buttresses; and iv: the use of panelling on the walls. Notes of this description are of the utmost value, especially to the layman who is apt to accept any old building as a masterpiece for no particular reason. The book is, of course, limited in scope; nevertheless, it should be useful to all those who need a simple and at the same time instructive survey of the development and chief characteristics of European architecture. A pencil drawing of the north transept and baptistry of Canterbury Cathedral, by Walter M. Keesey, forms the frontispiece. E. R.

A Book of Architecture. By G. H. Reed, M.A. A. and C. Black, Ltd. Price 1s. 6d.

* * *

DISTRIBUTION OF SCHOOLS OF ARCHITECTURE

The pupilage system, we read in the report of "Overcrowding of the Architectural Profession," drawn up by a joint committee of the R.I.B.A. and the A.A.S. and T.A., is responsible for the education of 900 of the recruits who enter the architectural profession each year, while the schools train less than half this number, i.e. 400. This is a profoundly unsatisfactory state of

affairs, and one that must not be allowed to continue. The old system is, however, fast giving place to the new, so it behoves the advocates of school training to see that the system is properly organized and co-ordinated. It was with this in view that the Committee on the Distribution of Schools of Architecture was convened by the R.I.B.A.

During its very thorough investigations this committee discovered several weak spots in the present organization—weaknesses of distribution, of co-ordination, and of number. Taking these points in order—a glance at the map showing the schools plotted on, that was prepared for the committee—shows that there is a serious lack of schools in the West of England, and to meet this it was proposed that one should be started at either Plymouth or Exeter.

It was felt that the number of schools, recognized for giving exemption from the intermediate examination, should be increased, and that the more important of the art and technical schools and polytechnics, which at present give instruction in architecture, and which are completely out of touch with the R.I.B.A., should be brought within the organization set up by the Board of Architectural Education. With regard to increasing the number of recognized schools, it would undoubtedly cheapen and simplify the training of a student if he could take the first part of his training (that is, up to the intermediate standard) at a local school, as the cost of maintaining him away from home would be reduced to the time that he was working for the Final in one of the larger architectural schools.

With regard to the second point, there are a large number of art and technical schools giving architectural training, which might be brought within the scheme of architectural education, by " recognizing " them to the extent of allowing " Testimonies of Study " to be prepared in their classes, provided that their syllabus was satisfactory, and also provided that there was a member of the Institute on their staff. It was also suggested that a system of head masters' nomination might prevent immature students from entering for the Institute examination.

The committee thought that, while the number of recognized schools might be increased with advantage, added efficiency would result from amalgamation where several schools in the same district have architectural classes.

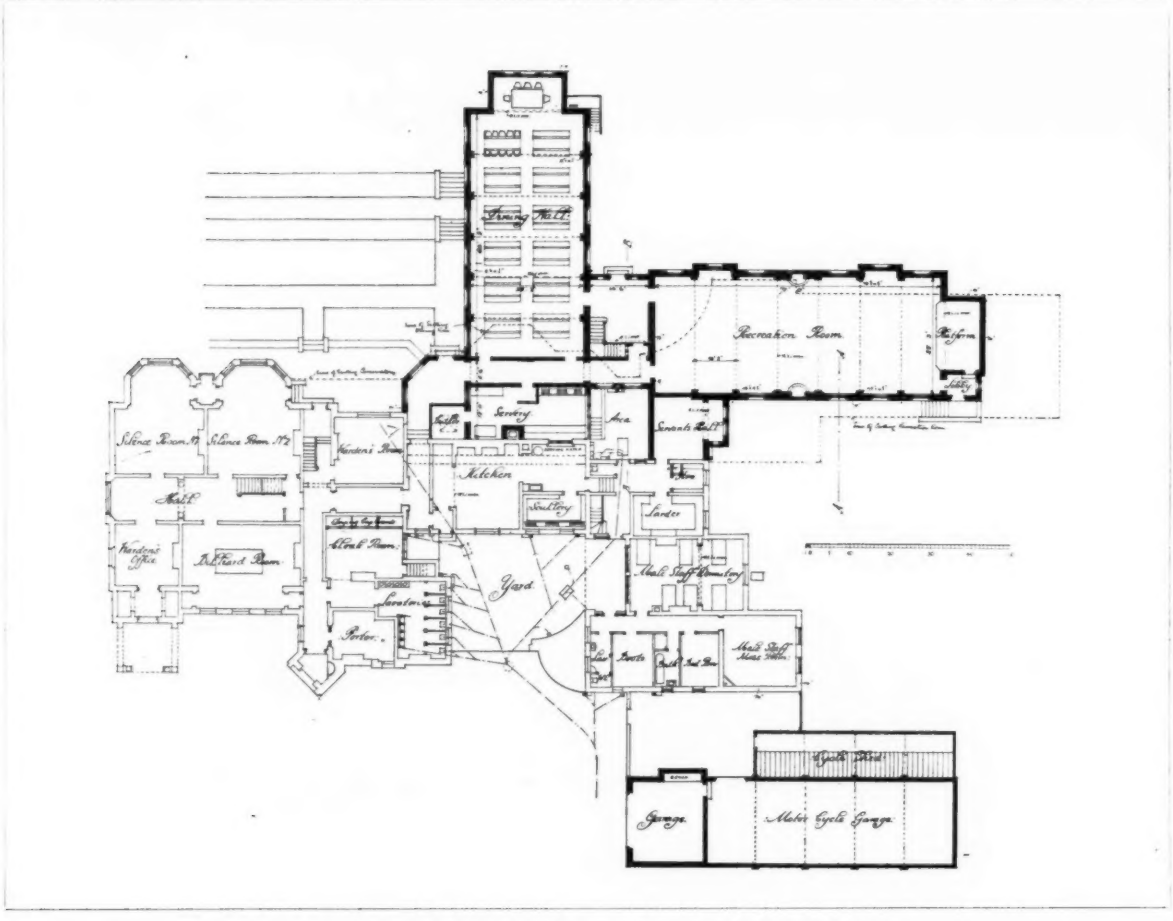
To quote the last paragraph of the committee's report, " The committee feel that if the R.I.B.A. is to guide the course of such training, it should not limit its influence to the R.I.B.A. examinations and to the schools of architecture at present recognized for exemption from these examinations, but should take a broad view of what is going on throughout the country, and by some such means as have been indicated here, make its influence felt towards a more serious consideration of the training of its future members."

Beside the map referred to above, the report gives a list of the seven " Final " and seventeen " Intermediate " schools recognized by the Institute, as well as a schedule of most of the art and technical schools which have architectural classes. There is also an analysis of the number of students who sat, passed, or were exempted, from the Institute's examinations for the last four years, and the districts from which they came.

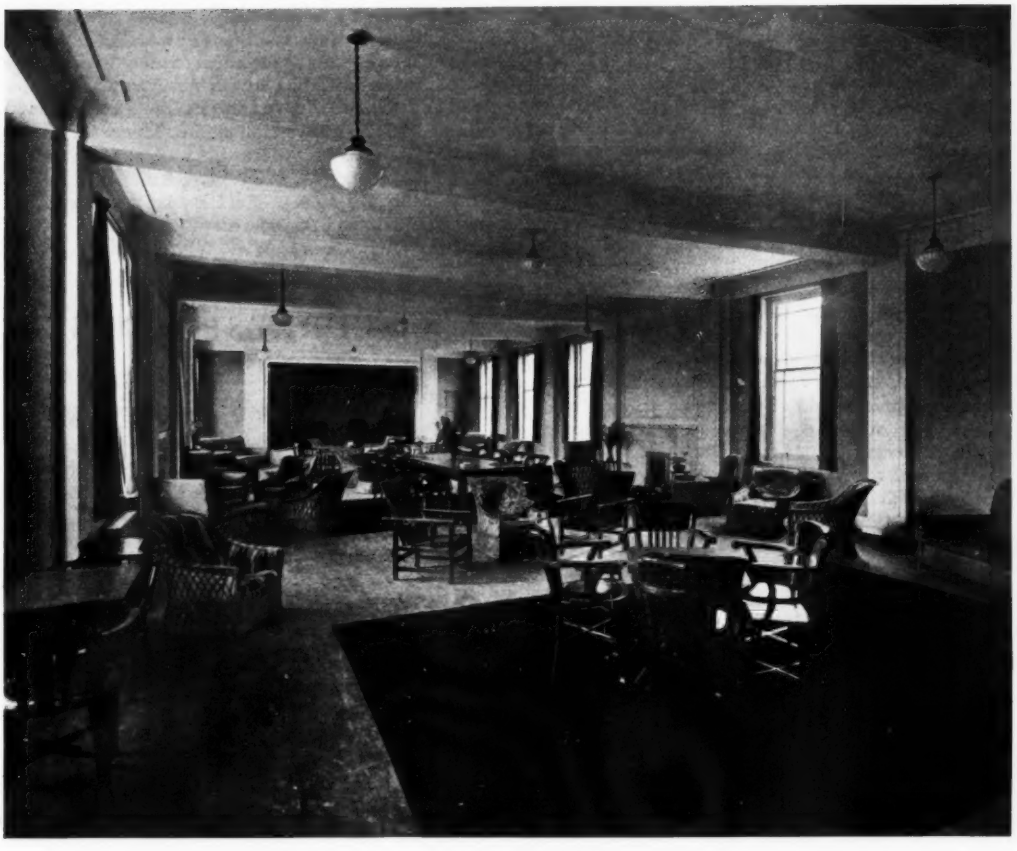
The report should certainly help the co-ordination of architectural education in this country, and it is to be hoped that its recommendations will be put into effect.

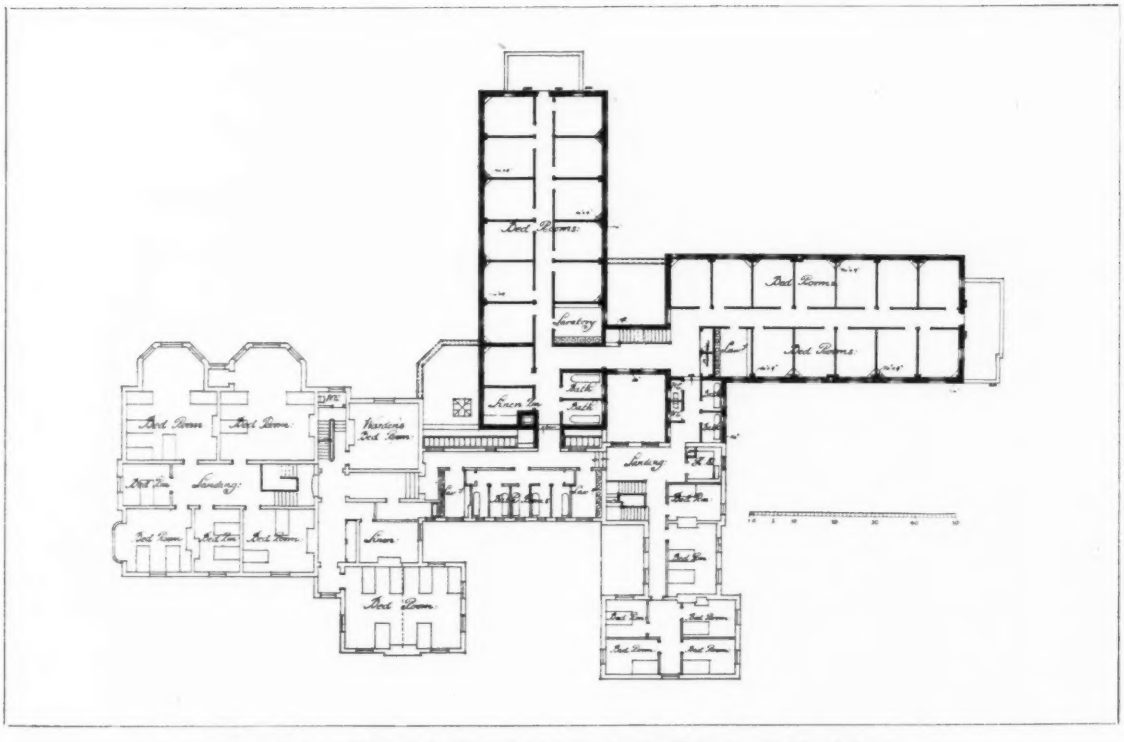
GRAHAME B. TUBBS

Canterbury Cathedral. The north transept and baptistry. From a pencil sketch by Walter M. Keesey. [*From* A Book of Architecture.]



Extensions to Chancellor's Hall, Edgbaston, for the University of Birmingham. By Peacock and Bewlay. Above, a general view. Below, ground-floor plan.





Extensions to Chancellor's Hall, Edgbaston, for the University of Birmingham. By Peacock and Bewlay. Above, the common room. Below, first-floor plan.

BRIXTON SCHOOL OF BUILDING

The evening classes of the London County Council School of Building, Brixton, the principal of which is Mr. F. E. Drury, M.SC. (TECH.), M.I.STRUCT.E., F.I.SAN.E., commence on September 24. The school was established by the London County Council in 1904, and is now classified by the Board of Education as a college for further education. The evening departments of this school provide organized courses of training and individual classes for the purpose of instruction in the work of the building industry and of allied vocations and professions. Courses and classes are available to meet the needs of youths who have recently entered the industry, young men who have had considerable experience in the industry, and adults who desire to specialize in the advanced sections of their vocation, of young men engaged in public works departments, and of pupils preparing to qualify as architects, surveyors, structural engineers, reinforced concrete engineers or sanitary engineers. Adults who have gained considerable experience of a profession or vocation related to the building industry will find ample provision for advanced study. The school accommodation includes lecture rooms, workshops and studios for craft practice, architectural and art studios, science laboratories, mechanical testing laboratories, reference library, refreshment room, and students' common room. Special equipment is available in every section of the school, and opportunities are provided for practical and theoretical study in each subject of instruction. The principal and the teaching staff may be consulted during school hours and will advise prospective students as to: i: Appropriate courses of study; ii: the vocational and professional examinations held by recognized professional institutions and other examining authorities, in which the students may be interested. The members of the Advisory Sub-committee include Messrs. H. D. Searles-Wood, F.R.I.B.A., chairman, and W. D. Caröe, M.A. (CANTAB.), F.R.I.B.A., F.S.I., and the Board of Assessors for internal examinations, Messrs. H. D. Searles-Wood, F.R.I.B.A., and W. R. Jaggard, F.R.I.B.A. The staff of the school includes Messrs. J. G. P. Meaden, L.R.I.B.A., N. Keep, A.R.I.B.A., M. R. Martin, A.R.I.B.A., H. C. Bankart, A.R.I.B.A., H. F. Murrell, A.R.I.B.A., L. M. Austin, A.R.C.A., A.R.I.B.A., H. J. Harding, A.R.C.A. (ARCH.), and L. W. T. White, A.R.I.B.A. (Soane medallist).

CORRESPONDENCE

FASCIST ARCHITECTURE IN ITALY

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—The architects Percier and Fontaine, mentioned by Mr. Garrick in your issue for August 8, actually belonged to the Italian school. Both of them were pupils of Giocondo Albertolli, professor in the famous Academy of Brera (see Cantu, History of the Town and Diocese of Como, and the old registers of the Academy of Brera).

P. MEZZANOTTE

UGLY SEASIDE TOWNS

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—With regard to your remarks on ugly seaside towns in your issue for September 5, the considerations you urge as to

Laboratory in Hammersmith Road, W., for J. Lyons & Co., Ltd. By Lyons' Architects' Department, under the supervision of C.E. Ardley.

beautifying these spots are fully appreciated at Hastings. In fact, Mr. T. S. Dymond, who was mayor two years ago, and who is now one of the most influential councillors, recently published a paper which attracted great attention, entitled *The City Beautiful*. Therein he urged practically all the improvements which you recommend, and I can assure you that so far as Hastings and St. Leonards are concerned there is no likelihood of their being overlooked. T. V. LILLY

TRADE NOTES

Considerable interest was shown by architects and builders in the Midlands in the exhibit organized by Messrs. G. and T. Earle (1925), Ltd., and the British Portland Cement Association, Ltd., at the Royal Agricultural Show, Nottingham. Some twenty producing firms supplied cast stone work or plain concrete products. The main pavilion was built of six types of cast stone, viz. cast York, Portland, Darley Dale, Ham Hill, Doulting, and Weldon. The accompanying illustration shows two sections, one built with cast Ham Hill stone and the other with cast Portland stone. Another interesting exhibit was a cast Bath stone structure suitable for a municipal shelter. The interior of the pavilion was rendered with stucco of various finishes.

The outstanding feature of "Winget's" stand at the Glasgow Housing Exhibition, which opens in Kelvin Hall today, is a fine range of their open drum mixers. These machines have been in such demand since they were placed on the market two years ago that the Winget works have long since been working twenty-four hours a day to cope with the orders. Five models will be demonstrated on the stand, with and without elevating hoppers and water tanks; and also, in one example, with hoist—a feature which contractors have found particularly useful where *in situ* concrete work is in progress. Besides this range of mixers there are exhibited two models of "Winget" plate-tamp machines. These machines are claimed to have big outputs, due to the ingenious feature in their design. One movement, for instance, unlocks and opens the three doors of the automatic mould-box—and *vice versa*—through a link motion. This, with the counterpoised tamping plate, reduces the operator's efforts to the minimum. The smaller of these machines makes full-size blocks 18×9×4½ in.; slabs 18×9×3, 2½, or 2 in. in thickness; or half-blocks and half-slabs two at a time. With the larger machine the full size extends to 24×12 in.

Messrs. H. and C. Davis & Co., Ltd., wholesale ironmongers, engineers, smiths and founders, oil, colour, and glass merchants, have issued a new net pocket price list for the trade only. The firm have two London establishments, one at No. 1 The Pavement, Clapham Common, S.W.4, and the other at Nos. 286 to 292 Camberwell Road, S.E.5. Free delivery is made to many districts covering a large area round London.

THE GEFFRYE MUSEUM

During October there will be a special exhibition at the Geffrye Museum of furniture, porcelain, and pictures, the property of a famous collector. Some recent additions to the permanent collection include exhibits showing the evolution of the sash window; a collection of ledge doors of the late seventeenth and early eighteenth centuries; carved trusses of the late seventeenth century; and some carved chimneypieces.

A CORRECTION

In our issue for August 8, we attributed the design of the Fascist headquarters in Milan to M. Colleoni. This is incorrect. The architect for this building was P. Mezzanotte. M. Colleoni was responsible for the Fascist headquarters in Bergamo.

Part of the stand of Messrs. G. and T. Earl (1925), Ltd., and the Portland Cement Association, Ltd., at the Royal Agricultural Show, Nottingham.

READERS' QUERIES

AREA OF PENDENTIVE

E. D. W. writes: "Can you give me a formula for obtaining the area of a pendentive, and also a method of developing the surface of it?"

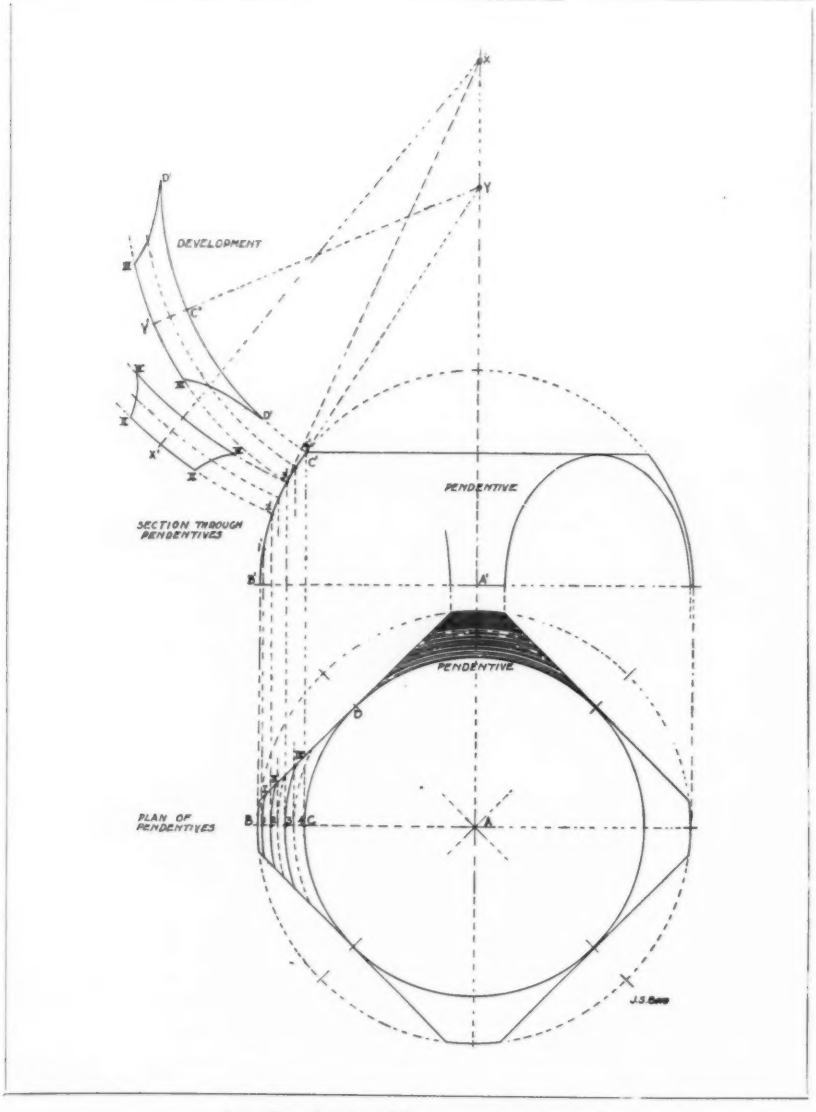
I am not aware of any formula suitably applicable to pendentive surfaces, but from a development of the surface of the pendentive the approximate area may be obtained. The lower part of the accompanying sketch represents the plan of four pendentives, and the upper part shows a section with developments of two zones of one of the pendentive surfaces.

With A and A′ as centres, draw respectively the plan and section of the hemisphere. From centre A and with radius AD draw a circle representing the upper edge of the pendentive. This is shown in elevation by a horizontal line drawn through C′.

Divide the section curve of the pendentive B′C′ into a suitable number of parts (four in this example), and from centre A in plan draw concentric arcs passing through the points 1, 2, and 3. The surfaces between these concentric arcs are the zones which can now be developed. Through the points 3′ and 4′ draw a line to cut the vertical axis of the sphere in the point Y, from which, as centre, draw arcs from 3′ and 4′. At any convenient point Y′ draw a line to Y. Measure the length of the arcs C D and 3III in plan by stepping out with dividers. Similarly, step out the lengths of these arcs on the corresponding curves in the development at C′′D′ and Y′ III. To obtain the closing curve at each end to join up the points III and D′, select an intermediate point on the section between 3′ and 4′. Draw the dotted arc in plan and the corresponding dotted arc in the development. Measure the length of the arc in plan and set it out on the development. Through this point join up III and D′.

The development of the zone continued between the arcs 2 and 3 is determined in a similar manner, and the area of each zone may be obtained approximately by dividing the development into a series of parallelograms and triangles. This graphic method will be found more practicable than reliance on formulæ.

J. S. BOYD



Area of pendentive. [*See answer to E. D. W.*]

SOME POINTS OF BRICKWORK

S. B. writes: "Which is the best method to obtain a clean white joint with rustic facing bricks to an 11 in. cavity wall? How is a flat 'arch' constructed with bricks on end? Is the cement sufficient, or is an iron bar run through?"

An 11 in. cavity wall should be built in a cement mortar fairly rich in cement if bulging and cracking of its two thin facings are to be avoided. Two courses are, therefore, open: first, to make the joints entirely of a white cement and suitable sand, and "joint" the joints as the work proceeds by pressing in the mortar that protrudes as the bricks are laid; or, to make a wall with a mortar of ordinary grey cement and sand, and rake and "point" the joints as separate operations.

If the second course is taken either lime mortar or white cement mortar may be used for the pointing. The joints must be raked well back to afford a lodgment for the pointing mortar, which should not be merely a film on the face of the work. A clean appearance is maintained by carefully adjusting the quantity of water in making up the pointing mortar, which is used rather stiff and is forced well home into the joints with special tools of wood or iron.

A joint in which the mortar is just pressed back about one-sixteenth of an inch behind the edges of the bricks generally looks well, and when the bricks are rustic and somewhat irregular, keeping the jointing material back is the only way to prevent it smearing across the more receding corners of the bricks. The effect of the work, both from a distance and near at hand, depends very largely upon the texture of the finished jointing surface, the amount of recessing, and the thickness of the joints, and samples of different kinds of pointing may profitably be made and inspected before the main bulk of the work is put in hand. White pointing is most pleasant when used with bricks of rich, strong, varied colours; it is rather inclined to give a bleached or washed-out appearance, when seen from a distance, to any brick that is at all faded looking in itself.

A flat "arch" is a very doubtful expedient in regard to weight-carrying, and only looks well where it appears above a stout wooden frame, and is seen to be a trimming to the opening rather than itself a support

to the work above. The wooden, or masonry, head to the window-frame is sometimes relied upon to carry the weight, in other cases a flat bar of iron is used, particularly if the lintel has to carry weight. The iron should be embedded in Portland cement mortar to protect it from rusting, and the joint between wood and brick must be most carefully repointed as the wood shrinks after the first dry summer after erection. The iron bar may be 1¼ in. by ½ in. over small spans, or 2 in. by ⅝ in. over large ones, but as the bar has to be laid flat it has a great tendency to sag in the centre of the span.

Another way of constructing lintels with bricks on end is to support the back corners of the bricks upon the flange of an "L" iron or rolled steel joist which is selected for its capacity to carry all the load. As even the best of bricks are porous they should be bedded in cement covering the steel.

W. H.

ROOF LIGHTING

Light writes: "A space, 45 ft. by 65 ft., is to be roofed, and have a centre light dome, about 20 ft. across, with four pillars to support it. A concrete flat with a glazed dome is suggested, but would these be absolutely watertight? A saucer dome with an outside square-plan lantern would get over this trouble, and would simplify the next question. Which is the best means of screening the sunlight to prevent the fading of the goods in the shop? Would a hipped roof with skylights to N. and E. and a flat ceiling light give satisfactory results with unbalanced lighting? And would it be cheaper? (Length is east and west.)"

A dome of glass and bent glazing bars is necessarily somewhat expensive, and if the arrangement is covered with an exterior lantern this makes for further expense without a proportionate return in convenience. The space between an internal ceiling light and its external cover is generally very difficult to clean whether the ceiling light is flat or domed, and if the outer roof or lantern is not glazed all round, the inner light will reveal the inequality of illumination even if it is made of deeply obscured glass.

It is really best to give up all idea of a ceiling light and compose a suitable lantern with glass in its vertical sides, arranged so that it can be reached in safety and comfort from the flat roof for cleaning and repair. Such a lantern can be made in several superimposed stages with flat platforms of reinforced concrete between one glass riser and the next, the weight being supported upon arched ribs spanning the whole width of the lantern. If it is desired to modify the amount of light admitted during certain parts of the day, the vertical windows of the lantern can be screened with blinds or curtains in the usual way, or special prismatic, or coloured, or obscured glass may be provided. The whole lantern may be given the form of a dome with tiers of vertical windows set in the ends of vaults interpenetrating its surface.

If expense has to be considered, the lantern may be built up without any curved members as a stepped pyramid on a square plan, with glass in the risers, and reinforced concrete treads. Intermediate forms, hexagonal or octagonal on plan, will suggest themselves, or the whole hall may be roofed with a stepped lantern with lights in tiers parallel to the long sides. When suitably detailed, roofs of this type show a considerable saving over complex double roofs with inner ceiling lights and outer lantern or skylights, and there is no special difficulty in making them watertight. The vertical lights can be made like ordinary windows to match or to harmonize with other windows throughout the building, or even composed of "standard" units. The flat roofs may be left in waterproofed reinforced concrete, or they may be asphalted, lead covered, or paved with slabs of stone, or with paving bricks or tiles.

If economy is not an object the stepped lantern type of roof lends itself to ornamental treatment as hinted above. The framework may be made in the form of an interpenetrated dome or vault, and the openings for the lights may be in the form of arched windows filled with stained glass, without sacrificing the advantages of direct ventilation and easy access for cleaning, repair, and experimental screening of the light as may be found necessary to suit various classes of goods stored below.

H. W.

The Editor welcomes readers' inquiries on all matters connected, directly or indirectly, with architectural practice. These inquiries are dealt with by a board of experts, to which additions are constantly being made as, and when, need arises. No charge is made to readers for this expert service. Diagrams must be clearly and legibly drawn out and lettered in black ink. Querists must enclose name and address. — Ed. A. J.

WATER SUPPLY

G. writes: "1. How does one calculate the output in water-piping in a large block of buildings with many floors and suites of rooms where all the equipments may not be in use at the same time? How can the probable periods of use of the water supply be gauged? 2. Which maximum speed should be allowed for the water in the various parts of the piping in order to avoid hydraulic shocks? 3. How much pressure may be allowed for the taps in the installation? 4. What probable loss of head can be calculated on in the bends, tees, and cocks?"

1: Personal experience and judgment of the probable habits of the users of the building is necessary if it is assumed that the equipments are not all being used at the same time. Investigations in a building of similar character to that proposed to be fitted with water supply will reveal a sound basis for calculation, or a fair approximation may be made by dividing the daily allowance of water per head in proportion to the principal periods of use. The maximum hourly demand may exceed three times the average hourly demand. Exceptional maximum usage in times of emergency should be provided for if air-lock in the pipes is to be avoided at those moments when its effects are most likely to be disastrous.

2: The shock depends upon the sudden starting and stopping of the flow as well as upon its velocity. A much higher velocity can be maintained without excessive shock in a straight smooth pipe than in one provided with bends and obstructions, or with taps which arrest the flow suddenly instead of gradually. Large diameters and easy bends help to avoid shock.

Friction and liability to shock are assumed to become excessive in pipes of: ¾ in. diameter with a flow of 20 gallons per minute; 1 in. diameter with a flow of 40 gallons per minute; 1¼ in. diameter with a flow of 60 gallons per minute.

It must be remembered that any flow whatsoever implies some shock, so that in cases where noise and percussion have to be reduced to a minimum specially large pipes should be used.

3: The taps must be strong enough to support the maximum pressure that can be applied to them by their respective pipes. Most taps of good manufacture conform to this rule with a margin of safety to cover the impact shocks due to sudden and repeated stopping and restarting of the column of water. Pipes and taps should withstand a pressure of 300 lb. per sq. in. at least.

Before selecting taps for a large installation it is worth while to have practical tests to destruction made of the tap and a length of pipe. The pipe should fail first, or the tap will have no margin of strength for wear in use. A tap sawn through lengthways reveals any particular weakness in the metal which is likely to be present in other similar castings taken from the same mould.

4: Loss of head in bends is lessened by using large radius curves, and is less excessive with low than with high velocities of flow. A table of losses of head for bends of different radii at different velocities is given in *Hurst's Architectural Surveyors' Handbook*. Elbows and tees involve greater losses of head than bends. Taps which are adapted to permit of full-bore flow should not reduce the head to a perceptible extent. When the length of pipe exceeds one thousand diameters, the friction in the pipe is so great compared with the loss due to bends, etc., that this loss is frequently treated as negligible. With a radius equal to the diameter of the pipe and a velocity of 10 ft. per second the theoretical loss of head at the bend is ·2284. With the same abrupt radius and a velocity of 1 ft. per second the loss of head is stated at ·0023.

W. H.

THE WEEK'S BUILDING NEWS

The STRETFORD U.D.C. has obtained sanction to grant another 100 housing subsidies.

*

Plans passed by the STRETFORD U.D.C.: Fourteen houses, Warley Road, and St. Theresa's Road, for Mr. W. R. Rochell; sixty-four houses, King's Road, etc., for Mr. J. G. Whitelegge; thirty houses, Colwell Avenue, for Mr. Ernest Jackson; eighty-seven houses, Nateley Road, etc., for Mr. W. R. Rochell; five houses and mason's yard, Lime Road, for Messrs. Wheeler and Williams; re-erection of slate and stone shops, Westinghouse Road, Trafford Park, for Messrs. Metropolitan-Vickers Elect. Co.; paint shop, Park Road Works, for Messrs. D. Anderson and Son; office, garages, and store-room, Ashburton Road, Trafford Park, for Mr. J. T. Leigh; office extension, Elsinore Road, and workshop extension, for Messrs. Switchgear and Cowan, Ltd.

*

The WALSALL Corporation is to extend gas mains at an estimated cost of £825 for the purpose of supplying gas to 169 non-parlour houses and sixteen parlour-type houses, now in course of erection on the North Walsall site.

*

The Warwickshire county architect is preparing plans for the erection of a central school at RUGBY, the cost being estimated at £18,000.

*

A report of the NEWCASTLE Corporation indicates that of the new loan, housing will absorb about £845,000; the new bridge about £315,000; the education committee require in all about £117,000, including £60,000 for the new school at Pendower. The balance will be expended on Walker and Willington estates roads and sewer works, other street improvements, representing £223,000, making a total of £1,500,000.

*

Mr. De la Rue has a scheme for the erection of shops and flats on an estate near the High Road, WEMBLEY.

*

The TORQUAY Corporation is to purchase twenty acres at South Parks Farm, Barton, and has instructed the borough surveyor to prepare plans for the early consideration of the Housing Committee.

*

The GLASGOW Corporation has granted the application by the Western Heritable Investment Co., Ltd., for consent to the proposed construction of sewers, streets, and 552 dwelling-houses at Meikle Aikenhead.

*

The GLASGOW Corporation has decided to construct a new bridge, 70 ft. wide, on the site of the King's Bridge across the River Clyde at Govan Street.

The GLASGOW Corporation Housing Committee has decided upon the acquisition of twenty acres of land at Ashfield, Possil, for a scheme of dwellings.

*

The Baptist Church of Scotland is seeking a site at Amulree Street, Tollcross, GLASGOW, for the erection of a church.

*

The GLASGOW Corporation Housing Committee has adopted an amended lay-out plan of Balmore Housing Scheme consequent on the giving of an area to the Education Authority for a new school.

*

The GLASGOW Corporation has passed plans submitted by Messrs. Mactaggart and Mickel, Ltd., 65 Bath Street, for construction of streets, lanes, and dwelling-houses at King's Park.

*

The GLASGOW Corporation is to seek powers for widening Haggs Road and the reconstruction of the bridge carrying the railway over that road.

*

The TORQUAY Corporation has asked the borough engineer to obtain a site for the erection of a covered swimming bath for school children.

*

The TORQUAY Corporation Electricity Committee has obtained a site in Lower Ellacombe for the erection of a sub-station.

*

The Devon Education Committee is in communication with the TORQUAY Corporation for the purchase of land in connection with the erection of the new technical school.

*

The SHEFFIELD Corporation has purchased land on the Wisewood estate, for another housing scheme.

*

The SHEFFIELD Corporation Housing Committee has adopted reconstruction schemes for the two unhealthy areas of Bailey Street and Spring Street.

*

The SHEFFIELD Corporation has obtained sanction to borrow £5,307 for the erection of twelve houses and the extension of gas mains in connection therewith, on the Longley estate, and of £34,627 for the erection of houses on the Ridgeway Road estate.

*

The BOLTON Corporation Libraries Committee is to consider the need for a library in the districts of Deane and Hulton.

*

The YORK Corporation Estates Committee has been in negotiation with the prospective lessees of the St. Helen's Square site as to the plan of the new building and has now approved it.

The YORK city engineer has been instructed to obtain tenders for the reconstruction of the Blue Bridge.

*

Plans passed by the YORK Corporation: Additions, Feasegate Restaurant, for York Coffee House Co., Ltd.; four houses, Linton Street, for Messrs. Puckering & Co.; additions, Clementhorpe, for Messrs. J. Terry and Sons, Ltd.; additions, Lord Mayor's Walk, for the trustees of St. John's Training College; additions, Heworth Grange, for Mr. A. Lawson; additions, Melrosegate, for Mr. A. Hodgson; garages, Sutherland Street, for Mr. E. Relton; two houses, Rawcliffe Lane, for Clifton Lodge estate.

*

The WAKEFIELD Education Committee has instructed the architect to prepare detailed plans and estimates of the proposed gymnasium, etc., at Thornes House Schools.

*

The WAKEFIELD Corporation has had a letter from the Ministry of Health stating that the Minister approved the sketch plans of the proposed extensions to the maternity hospital, and would await a revised estimate based on a provisionally accepted tender. Instructions were given for the city surveyor to proceed with the preparation of detailed drawings and estimates.

*

The WAKEFIELD Corporation has passed the block plan forwarded by the East Riding county architect, of the proposed new Registry of Deeds.

*

The WAKEFIELD Watch Committee has adopted the scheme submitted by the city surveyor for the construction of the joint police and fire station on land at the junction of Market Street and Ings Road, at the estimated cost of £43,000.

*

The BRISTOL Corporation Housing Committee has approved an extension of the direct labour scheme on the Shirehampton estate, to provide for the erection of thirty additional houses to complete the development of the estate.

*

Plans passed by the BRISTOL Corporation: Fourteen houses, Fiddes Road, Redland, for Messrs. W. Hendy and Sons; ten houses, Cuffington Avenue, Brislington, for Mr. R. J. Cuff; four houses, Talbot Avenue, St. George, for Mr. W. A. Salter; four houses, Wee Lane, Eastville, for Messrs. Powell and Giles; seventy-five houses, Longmead Avenue, Horfield, for the Northville Building Co.; eleven houses, Muller Avenue, Horfield, for Mr. D. Cottrell; four houses, Portway, Shirehampton, for Mr. H. B. Stride; two houses, Cuffington Avenue, for Mr. R. J. Cuff; three houses, Toronto Road, Horfield, for Mr. W. J. J. Lee.

The BRISTOL Corporation is to construct roads and sewers in connection with development of land recently purchased by the Council for extending the Horfield housing estate for £22,000. The proposed development will make provision for the erection of about 420 houses.

★

The BRISTOL Corporation is seeking sanction to borrow £40,000 for further housing subsidies.

★

Plans passed by the OSSETT Corporation: Alterations to shop premises, Market Place, for Messrs. Jas. Smith and Sons; petrol tank and pump, Bank Street, for Messrs. A. E. Lloyd and Son; garage and washhouse, etc., Wesley Street, for Mr. J. H. Glover.

★

Plans passed by the STALYBRIDGE Corporation: Alterations, "Moorlands," Stocks Lane, for Miss Annie Mills; pavilion, etc., Quarry Street Mills, for Messrs. Robert Platt, Ltd.

★

Plans passed by the WAKEFIELD Corporation: Additions to Grammar School, for the Spokesman and Governors, for Mr. J. P. Firth; garages, Elm Tree Street, for Messrs. J. Rhodes and Sons, Ltd.; warehouse, Burrell Street, for Messrs. R. S. Dyson & Co., Ltd., for Mr. F. Simpson.

★

Plans passed by the BARNSLEY Corporation: House, Westville Road, for the West Riding C.C.; offices to dairy, Summer Lane, for the Barnsley British Co-operative Society, Ltd.; pavilion to sports ground, rear of Queen's Ground, for the Barnsley British Co-operative Society, Ltd.; house, Wombwell Road, Stairfoot, for Mr. F. Hemmingway; house, Hunter's Avenue, off Dodworth Road, for Mr. A. P. Haigh; two houses, Hunningley Lane, Stairfoot, for Messrs. H. and A. Field.

★

At a meeting of the BARNSLEY Corporation Markets Committee, the borough engineer submitted alternative plans and estimates of the cost of a three-story and a four-story building on the Corn Exchange site. The committee recommends that a four-story building be erected.

★

Plans passed by the SHOREDITCH B.C.: Warehouses, 1 and 3 Clifton Street, and 23 to 29 (odd), Sun Street; workshop, vacant land, Hutley Place; partially rebuild 95 and 97 East Road.

★

The BRADFORD Corporation has approved the scheme to provide accommodation for 120 male and 120 female defectives in the first instance, capable of extension to accommodate 160 additional defectives, making a total of 400 defectives, on the Westwood estate. Application for sanction to borrow £105,000 required in connection therewith is to be made forthwith.

The CARLISLE Education Committee has passed plans for the erection of an open-air school, adjoining Newtown School.

★

The LEWISHAM B.C. has passed plans submitted by Messrs. Douglass Halse & Co., Ltd., for the erection of a cinema at Nos. 11, 13, and 15 London Road.

★

The LEWISHAM B.C. has passed plans submitted by Mr. W. E. Challis on behalf of the Provincial Cinematograph Theatres, Ltd., for rebuilding of the Rink Cinema, Silverdale, Sydenham.

★

The trustees of the Welsh Congregational Church, Alford Street, OLDHAM, have a scheme for a building extension to the present church premises.

★

Plans passed by the OLDHAM Corporation: Additional two stories, Mills, Glodwick Road, for Messrs. Lees and Wrigley, Ltd.; alterations, "Royal Oak," Rhodes Bank, for Messrs. F. Robinson, Ltd.; rope race and extensions to engine-house, Marsland Mills, Green Street, for Messrs. Kirkham and Mannock; cloakroom, St. Paul's School, Ashton Road, for the trustees; alterations, White Hart Inn, Hollins Road, for Oldham Brewery Co., Ltd.; nine houses, Kingsley Road, for Mr. F. Thompson; conversion of warehouse into two houses, Gregory Street, for Messrs. Renouprez and McLeod.

★

Plans passed by the CARLISLE Corporation: Greyhound racing and sports syndicate buildings, Harraby Park, for Mr. H. Foxall (architect); additions, St. Aidan's Road, for Mr. H. Foxall (architect); store shed, Denton Street, for Mr. F. Renucci; receiving station, Currock Road, for Nestle and Anglo-Swiss Condensed Milk Co.; estate plan, Rickerby, for Mr. W. P. Gibbings (architect), for the trustees of the late Miles McInnes; alterations, Y.M.C.A. buildings, Fisher Street, for Mr. H. E. Ayris (architect); transformer station, London Road, for Messrs. T. Brown & Co., Ltd.; five houses, Upperby Road, etc., for Messrs. Benwell and Slack (architects); alterations to shop, The Crescent, for Mr. H. Foxall (architect); garage, Dacre Street, for Carlisle Corporation (Mr. E. Lund); shop, Waldegrave Road, for Mr. S. W. B. Jack (architect), for Carlisle South End Co-operative Society; alterations to shop, The Crescent, for Messrs. Hill and Honeyman (architects); two houses, St. Aidan's Road, for Mr. H. Foxall (architect); two houses, Moorhouse Road, for Mr. H. E. Scarborough (architect).

★

Mr. G. E. Cloke is to develop a building estate at Gravel Pit Farm, NEASDEN.

★

The STALYBRIDGE Corporation has obtained sanction to borrow £37,577 in connection with the erection of a further 106 houses on the Hague estate.

The STALYBRIDGE Corporation has empowered a committee to settle the necessary details in connection with the erection of working-class houses on the plot of land at the junction of Buckton Vale Road and Huddersfield Road.

★

Plans passed by the LEWISHAM B.C.: 226 houses, County Council Downham estate, for Mr. J. C. Stephenson; rebuild 102-104 High Street, for Mr. S. Clough; ten houses, Crantock Road, for Mr. H. R. Watt; twenty houses, Daneby Road, for Mr. A. E. Thomas; rebuild 128 Rushey Green, for Mr. W. Piggott; six houses, Devonshire Road, for Mr. F. G. Barnes; seven houses, Brockley Grove, for Messrs. J. W. Heath and Sons; addition to Bell public-house, Bell Green, for Mr. Noel Parr; six shops, Loanpit Vale, for Messrs. T. H. Sawyer and Son, Ltd.

★

Plans passed by the BIRKENHEAD Corporation: Forty-two garages and workshop, land adjoining "Holt House," abutting on Hillside Road and Holt Road; toy warehouses, vacant land between premises 69-73 Argyle Street; alterations to four houses and shops, 263-269 Old Chester Road; alterations and additions, The Institute, corner of Brassey Street and Bray Street.

★

Plans passed by the NEWPORT (I.O.W.) Corporation: Timber store, Seaclose Quay, for Messrs. H. W. Morey and Sons, Ltd.; alterations, 37 High Street, for Messrs. J. H. Dewhurst, Ltd., on behalf of Messrs. Eastmans, Ltd.; house, Medina Avenue, for Mr. A. L. Chiverton.

★

Plans passed by the DUDLEY Corporation: Ten houses, Dibdale Street, for Mr. C. Coulson; alterations, 208 High Street, for Messrs. Freeman, Hardy and Willis, Ltd.; shop with residential flat over, High Street, for Provincial Picture Houses, Ltd.; two cottages, Watson's Green Road, for Mr. J. Pickerill; garage and additions to works, Dye Works, New Town, for Messrs. A. and M. Hill; shopfront and alterations, 28 High Street, Market Place, for Messrs. Wm. Timpson, Ltd.; outbuildings, High Street, for Messrs. F. W. Cook, Ltd.; additions, estate offices, Downing Street, for Viscount Ednam; shopfront and alterations, 197 High Street, for the exors. of the late Dr. Higgs; two houses, Church Road, Netherton, for Mr. E. Hollies; two houses Bowling Green Road, for Mr. John Edwards.

★

The DUDLEY Corporation has decided to purchase 9 acres at Mouse Street, Netherton, for housing purposes.

★

The BURTON-ON-TRENT Corporation has now agreed upon market development of the High Street site and the proposed layout, as suggested by the borough surveyor and the market superintendent.

RATES OF WAGES

			I	II
			s. d.	s. d.
A	ABERDARE	S. Wales & M.	1 7½	1 2¾
A₁	Abergavenny	S. Wales & M.	1 7	1 2½
B	Abingdon ..	S. Counties	1 5½	1 1½
A	Accrington	N.W. Counties	1 7½	1 2¾
A₃	Addlestone	S. Counties	1 6	1 1½
A	Adlington ..	N.W. Counties	1 7½	1 2¾
A	Airdrie ..	Scotland	*1 7½	1 2¾
C₁	Aldeburgh	E. Counties	1 3	1 1½
A	Altrincham	N.W. Counties	1 7½	1 2¾
B₃	Appleby ..	N.W. Counties	1 4	1 0
A	Ashton-under-Lyne	N.W. Counties	1 7½	1 2¾
A₃	Atherstone	Mid. Counties	1 6	1 1½
B₃	Aylesbury ..	S. Counties	1 4	1 0
B₃	BANBURY ..	S. Counties	1 4	1 0
B₂	Bangor ..	N.W. Counties	1 4½	1 0½
A	BarnardCastle	N.E. Coast	1 7½	1 2¾
A	Barnsley ..	Yorkshire	1 7½	1 2¾
B₁	Barnstaple	S.W. Counties	1 5	1 0¾
A	Barrow ..	N.W. Counties	1 7½	1 2¾
A	Barry ..	S. Wales & M.	1 7½	1 2¾
B₃	Basingstoke	S.W. Counties	1 4	1 0
B	Bath ..	S.W. Counties	1 5½	1 1½
A	Batley ..	Yorkshire	1 7½	1 2¾
B	Bedford ..	E. Counties	1 5½	1 1½
A₂	Berwick-on-Tweed	N.E. Coast	1 6½	1 2
A₂	Bewdley ..	Mid. Counties	1 6½	1 2
B₃	Bicester ..	Mid. Counties	1 4	1 0
A	Birkenhead	N.W. Counties	*1 7½	1 2¾
A	Birmingham	Mid. Counties	1 7½	1 2¾
A	Bishop Auckland	N.E. Coast	1 7½	1 2¾
A	Blackburn	N.W. Counties	1 7½	1 2¾
A	Blackpool	N.W. Counties	1 7½	1 2¾
A	Blyth ..	N.E. Coast	1 7½	1 2¾
B₃	Bognor ..	S. Counties	1 4	1 0
A	Bolton ..	N.W. Counties	1 7½	1 2¾
A₂	Boston ..	Mid. Counties	1 6	1 1½
B₁	Bournemouth	S. Counties	1 5	1 0¾
B₂	Bovey Tracey	S.W. Counties	1 4½	1 0½
A	Bradford ..	Yorkshire	1 7½	1 2¾
A₂	Brentwood	E. Counties	1 6½	1 2
A	Bridgend ..	S. Wales & M.	1 7½	1 2¾
B₂	Bridgwater	S.W. Counties	1 4½	1 0½
A₁	Bridlington	Yorkshire	1 7	1 2½
A	Brighouse ..	Yorkshire	1 7½	1 2¾
B₁	Brighton ..	S. Counties	1 5	1 0¾
A	Bristol ..	S.W. Counties	1 7½	1 2¾
B₃	Brixham ..	S.W. Counties	1 4	1 0
A₂	Bromsgrove	Mid. Counties	1 6½	1 2
C	Bromyard ..	Mid. Counties	1 3½	11¾
A	Burnley ..	N.W. Counties	1 7½	1 2¾
A	Burslem ..	Mid. Counties	1 7½	1 2¾
A₂	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury ..	N.W. Counties	1 7½	1 2¾
A₁	Buxton ..	N.W. Counties	1 7	1 2½
B	CAMBRIDGE	E. Counties	1 5½	1 1½
B₂	Canterbury	S. Counties	1 4½	1 0½
A	Cardiff ..	S. Wales & M.	1 7½	1 2¾
A	Carlisle ..	N.W. Counties	1 7½	1 2¾
B	Carmarthen	S. Wales & M.	1 5½	1 1½
B₂	Carnarvon	N.W. Counties	1 4½	1 0½
A₁	Carnforth ..	N.W. Counties	1 7	1 2½
A	Castleford	Yorkshire	1 7½	1 2¾
B₁	Chatham ..	S. Counties	1 5	1 0¾
B₁	Chelmsford	E. Counties	1 5	1 0¾
A₃	Cheltenham	S.W. Counties	1 6	1 1½
A	Chester ..	N.W. Counties	1 7½	1 2¾
A	Chesterfield	Mid. Counties	*1 7½	1 2¾
B₃	Chichester	S. Counties	1 4	1 0
A	Chorley ..	N.W. Counties	1 7½	1 2¾
B₂	Cirencester	S. Counties	1 4½	1 0½
A	Clitheroe ..	N.W. Counties	1 7½	1 2¾
A	Clydebank	Scotland	1 7½	1 2¾
A	Coalville ..	Mid. Counties	1 7½	1 2¾
B	Colchester ..	E. Counties	1 5½	1 1½
A	Colne ..	N.W. Counties	1 7½	1 2¾
A₃	Colwyn Bay	N.W. Counties	1 6	1 1½
A	Consett ..	N.E. Coast	1 7½	1 2¾
A₃	Conway ..	N.W. Counties	1 6	1 1½
A	Coventry ..	Mid. Counties	1 7½	1 2¾
A₃	Crewe ..	N.W. Counties	1 6	1 1½
A₃	Cumberland	.....	1 6	1 1½
A	DARLINGTON	N.E. Coast	1 7½	1 2¾
A	Darwen ..	N.W. Counties	1 7½	1 2¾
B₂	Deal ..	S. Counties	1 4½	1 0½
A₃	Denbigh ..	N.W. Counties	1 6	1 1½
A	Derby ..	Mid. Counties	1 7½	1 2¾
A	Dewsbury	Yorkshire	1 7½	1 2¾
B	Didcot ..	S. Counties	1 5½	1 1½
A	Doncaster	Yorkshire	1 7½	1 2¾
C₁	Dorchester	S.W. Counties	1 3	11½
A₃	Driffield ..	Yorks	1 6	1 1½
A₃	Droitwich	Mid. Counties	1 6	1 1½
A₁	Dudley ..	Mid. Counties	1 7	1 2½
A	Dundee ..	Scotland	1 7½	1 2¾
A	Durham ..	N.E. Coast	1 7½	1 2¾
B₁	EAST-BOURNE	S. Counties	1 5	1 0¾
A	Ebbw Vale	S. Wales & M.	1 7½	1 2¾
A	Edinburgh	Scotland	1 7½	1 2¾
A	E. Glamorganshire & Monmouthshire	S. Wales & M.	1 7½	1 2¾
B	Exeter ..	S.W. Counties	*1 5½	1 1½
B₃	Exmouth ..	S.W. Counties	1 4½	1 0½
B	FELIXSTOWE	E. Counties	1 5½	1 1½
A₃	Filey ..	Yorks	1 6	1 1½
A	Fleetwood ..	N.W. Counties	1 7½	1 2¾
B₂	Folkestone	S. Counties	1 4½	1 0½
A	Frodsham ..	N.W. Counties	1 7½	1 2¾
B₃	Frome ..	S.W. Counties	1 4	1 0
A	GATESHEAD	N.E. Coast	1 7½	1 2¾
B₁	Gillingham	S. Counties	1 5	1 0¾
A₃	Gloucester	S.W. Counties	1 6	1 1½
A₂	Goole ..	Yorkshire	1 6½	1 2
B	Gosport ..	S. Counties	1 5½	1 1½
A₃	Grantham	Mid. Counties	1 6	1 1½
A₁	Gravesend	S. Counties	1 7	1 2½
A	Greenock ..	Scotland	*1 7½	1 2¾
A	Grimsby ..	Yorkshire	1 7½	1 2¾
B₁	Guildford ..	S. Counties	1 5	1 0¾
A	HALIFAX ..	Yorkshire	1 7½	1 2¾
A	Hanley ..	Mid. Counties	1 7½	1 2¾
A	Harrogate	Yorkshire	1 7½	1 2¾
A	Hartlepools	N.E. Coast	1 7½	1 2¾
B₂	Harwich ..	E. Counties	1 4½	1 0½
B₂	Hastings ..	S. Counties	1 4½	1 0½
B₁	Hatfield ..	S. Counties	1 5	1 0¾
B	Hereford ..	S. W. Counties	1 5½	1 1½
B	Hertford ..	E. Counties	1 5½	1 1½
A₁	Heysham ..	N.W. Counties	1 7	1 2½
A	Howden ..	N.E. Coast	1 7½	1 2¾
A	Huddersfield	Yorkshire	1 7½	1 2¾
A	Hull ..	Yorkshire	1 7½	1 2¾
A	ILKLEY ..	Yorkshire	1 7½	1 2¾
A	Immingham	Mid. Counties	1 7½	1 2¾
B	Ipswich ..	E. Counties	1 5½	1 1½
C₁	Isle of Wight	S. Counties	1 3	11½
A	JARROW ..	N.E. Coast	1 7½	1 2¾
A	KEIGHLEY	Yorkshire	1 7½	1 2¾
B₁	Kendal ..	N.W. Counties	1 5	1 0¾
B₁	Keswick ..	N.W. Counties	1 5	1 0¾
A₃	Kettering ..	Mid. Counties	1 6	1 1½
A₂	Kiddermin-ster	Mid. Counties	1 6½	1 2
B₂	King's Lynn	E. Counties	1 4½	1 0½
A	LANCASTER	N.W. Counties	1 7½	1 2¾
A₂	Leamington	Mid. Counties	1 6½	1 2
A	Leeds ..	Yorkshire	1 7½	1 2¾
A	Leek ..	Mid. Counties	1 7½	1 2¾
A	Leicester ..	Mid. Counties	1 7½	1 2¾
A	Leigh ..	N.W. Counties	1 7½	1 2¾
B₃	Lewes ..	S. Counties	1 4	1 0
A₃	Lichfield ..	Mid. Counties	1 6	1 1½
A	Lincoln ..	Mid. Counties	1 7½	1 2¾
A	Liverpool ..	N.W. Counties	*1 10	1 4½
A₃	Llandudno	N.W. Counties	1 6	1 1½
A	Llanelly ..	S. Wales & M.	1 7½	1 2¾
	London (12 miles radius)		1 9	1 4
	Do. (12-15 miles radius)		1 8½	1 3½
A	Long Eaton	Mid. Counties	1 7½	1 2¾
A	Lough-borough	Mid. Counties	1 7½	1 2¾
A₃	Luton ..	E. Counties	1 6	1 1½
A	Lytham ..	N.W. Counties	1 7½	1 2¾
A₁	MACCLES-FIELD	N.W. Counties	1 7	1 2½
B	Maidstone	S. Counties	1 5½	1 1½
A₃	Malvern ..	Mid. Counties	1 6	1 1½
A	Manchester	N.W. Counties	1 7½	1 2¾
A	Mansfield	Mid. Counties	1 7½	1 2¾
B₂	Margate ..	S. Counties	1 4½	1 0½
A₃	Matlock ..	Mid. Counties	1 6	1 1½
A	Merthyr ..	S. Wales & M.	1 7½	1 2¾
A	Middles-brough	N.E. Coast	1 7½	1 2¾
A₃	Middlewich	N.W. Counties	1 6	1 1½
B₂	Minehead ..	S.W. Counties	1 4½	1 0½
A	Monmouth & S. and E. Glamorganshire	S. Wales & M.	1 7½	1 2¾
A₁	Morecambe	N.W. Counties	1 7	1 2½
A₃	NANTWICH	N.W. Counties	1 6	1 1½
A	Neath ..	S. Wales & M.	1 7½	1 2¾
A	Nelson ..	N.W. Counties	1 7½	1 2¾
A	Newcastle ..	N.E. Coast	1 7½	1 2¾
A	Newport ..	S. Wales & M.	1 7½	1 2¾
A	Normanton	Yorkshire	1 7½	1 2¾
A₁	Northampton	Mid. Counties	1 7	1 2½
A	North Staffs.	Mid. Counties	1 7½	1 2¾
A	North Shields	N.E. Coast	1 7½	1 2¾
A₃	Norwich ..	E. Counties	1 6	1 1½
A	Nottingham	Mid. Counties	1 7½	1 2¾
A	Nuneaton ..	Mid. Counties	1 7½	1 2¾
B	OAKHAM ..	Mid. Counties	1 5½	1 1½
A	Oldham ..	N.W. Counties	1 7½	1 2¾
A₃	Oswestry ..	Mid. Counties	1 6	1 1½
B	Oxford ..	S. Counties	1 6	1 1½
A	PAISLEY ..	Scotland	*1 7½	1 2¾
C	Pembroke	S. Wales & M.	1 3½	11¾
A	Perth ..	Scotland	*1 7½	1 2¾
A₃	Peterborough	Mid. Counties	1 6	1 1½
A	Plymouth	S.W. Counties	*1 7½	1 2¾
A	Pontefract	Yorkshire	1 7½	1 2¾
A	Pontypridd	S. Wales & M.	1 7½	1 2¾
B	Portsmouth	S. Counties	1 5½	1 1½
A	Preston ..	N.W. Counties	1 7½	1 2¾
A	QUEENS-FERRY	N.W. Counties	1 7½	1 2
A₃	READING	S. Counties	1 6	1 1½
B	Reigate ..	S. Counties	1 5½	1 1½
A₃	Retford ..	Mid. Counties	1 6	1 1½
A	Rhondda Valley	S. Wales & M.	1 7½	1 2¾
A₃	Ripon ..	Yorkshire	1 6	1 1½
A	Rochdale ..	N.W. Counties	1 7½	1 2¾
B	Rochester ..	S. Counties	1 5½	1 1½
A₁	Ruabon ..	N.W. Counties	1 7	1 2½
A₂	Rugby ..	Mid. Counties	1 6½	1 2
A₃	Rugeley ..	Mid. Counties	1 6	1 1½
A	Runcorn ..	N.W. Counties	1 7½	1 2¾
A₃	ST. ALBANS	E. Counties	1 6	1 1½
A	St. Helens ..	N.W. Counties	1 7½	1 2¾
B₃	Salisbury ..	S.W. Counties	1 4	1 0
A₁	Scarborough	Yorkshire	1 7	1 2½
A	Scunthorpe	Mid. Counties	1 7½	1 2¾
A	Sheffield ..	Yorkshire	1 7½	1 2¾
A	Shipley ..	Yorkshire	1 7½	1 2¾
A₃	Shrewsbury	Mid. Counties	1 6	1 1½
A₂	Skipton ..	Yorkshire	1 6½	1 2
A₃	Slough ..	S. Counties	1 6	1 1½
A₂	Solihull ..	Mid. Counties	1 6½	1 2
A₃	South'pton	S. Counties	1 6	1 1½
A₂	Southend-on-Sea	E. Counties	1 6½	1 2
A	Southport ..	N.W. Counties	1 7½	1 2¾
A	S. Shields ..	N.E. Coast	1 7½	1 2¾
A₂	Stafford ..	Mid. Counties	1 6½	1 2
A	Stockport ..	N.W. Counties	1 7½	1 2¾
A	Stockton-on-Tees	N.E. Coast	1 7½	1 2¾
A	Stoke-on-Trent	Mid. Counties	1 7½	1 2¾
B	Stroud ..	S.W. Counties	1 5½	1 1½
A	Sunderland	N.E. Coast	1 7½	1 2¾
A	Swadlincote	Mid. Counties	1 7½	1 2¾
A	Swansea ..	S. Wales & M.	1 7½	1 2¾
B	Swindon ..	S.W. Counties	1 5½	1 1½
A₁	TAMWORTH	N.W. Counties	1 7	1 2½
B₁	Taunton ..	S.W. Counties	1 5	1 0¾
A	Teeside Dist.	N.E. Counties	1 7½	1 2¾
B	Teignmouth	S.W. Coast	1 5½	1 1½
A	Todmorden	Yorkshire	1 7½	1 2¾
A₃	Torquay ..	S.W. Counties	1 7	1 2½
C	Truro ..	S.W. Counties	1 3½	11¾
B₁	Tunbridge Wells	S. Counties	1 5	1 0¾
A	Tunstall ..	Mid. Counties	1 7½	1 2¾
A	Tyne District	N.E. Coast	1 7½	1 2¾
A	WAKE-FIELD	Yorkshire	1 7½	1 2¾
A₁	Walsall ..	Mid. Counties	1 7	1 2½
A	Warrington	N.W. Counties	1 7½	1 2¾
A₂	Warwick ..	Mid. Counties	1 6½	1 2
A	Welling-borough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 7½	1 2¾
B	Weston-s-Mare	S.W. Counties	1 5½	1 1½
A₂	Whitby ..	Yorkshire	1 6½	1 2
A	Widnes ..	N.W. Counties	1 7½	1 2¾
A	Wigan ..	N.W. Counties	1 7½	1 2¾
B₂	Winchester	S. Counties	1 4½	1 0½
A₃	Windsor ..	S. Counties	1 6	1 1½
A	Wolver-hampton	Mid. Counties	1 7½	1 2¾
A₃	Worcester	Mid. Counties	1 6	1 1½
A₃	Worksop ..	Yorkshire	1 6	1 1½
A₁	Wrexham ..	N.W. Counties	1 7	1 2½
B	Wycombe	S. Counties	1 5½	1 1½
B₁	YARMOUTH	E. Counties	1 5	1 0¾
B₂	Yeovil ..	S.W. Counties	1 4½	1 0½
A	York ..	Yorkshire	1 7½	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.

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

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

PRICES CURRENT

EXCAVATOR AND CONCRETOR

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

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

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

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

DRAINER

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

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

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

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

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

BRICKLAYER

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

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

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

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

MASON

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

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

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

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

HALF SAWING, per ft. sup.	£0 1 0
Add to the foregoing prices, if in York stone, 35 per cent.	
DO. Mansfield, 12½ per cent.	
Deduct for Bath, 33⅓ per cent.	
DO. for Chilmark, 5 per cent.	
SETTING 1 in. slate shelving in cement, per ft. sup.	£0 0 6
RUBBED round nosing to do., per ft. lin.	0 0 6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1 9 0
YORK SILLS, W. & T., ft. cub. fixed	1 13 0
ARTIFICIAL stone paving, 2 in. thick, per ft. sup.	0 1 6
DO. 2½ in. thick, per ft. sup.	0 1 3

SLATER AND TILER

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

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

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

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

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

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

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

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

Green randoms	6 7 0
Grey-green do.	5 9 0
Green peggies, 12 in. to 8 in. long	4 17 0
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	5 6 0
DO., machine-made do., per square	4 17 0

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

FIXING lead soakers, per dozen	£0 0 10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0 10 0
LABOUR only in laying slates, but including nails, per square	1 0 0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

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

Timber, average prices at Docks, London Standard Scandinavian, etc. (equal to 2nds):

7 × 3, per std.	£21 0 0
11 × 4, per std.	33 0 0
Memel or Equal. Slightly less than foregoing.	
Flooring, P.E., 1 in., per sq.	£1 2 6
DO. *T. and G., 1 in., per sq.*	1 2 6
Planed boards, 1 in. × 11 in., per std.	30 0 0
Wainscot oak, per ft. sup. of 1 in.	0 1 4
Mahogany, Honduras, per ft. sup. of 1 in.	0 1 3
DO. *Cuba, per ft. sup. of 1 in.*	0 2 3
DO., *African, per ft. sup.*	0 1 0
Teak, per ft. sup. of 1 in.	0 1 3
DO., *ft. cube*	0 12 6

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

continued overleaf

CARPENTER AND JOINER: *continued.*

SHUTTERING to face of concrete, per square	£1	10	0
DO. in narrow widths to beams, etc., per ft. sup.	0	0	6
USE and waste of timbers, allow 25 per cent. of above prices.			
SLATE BATTENING, per sq.	£0	12	6
DEAL boarding to flats, 1 in. thick and firrings to falls, per square	2	10	0
STOUT feather-edged tilting fillet to eaves, per ft. run	0	0	6
FEATHER-EDGED springer to trimmer arches, per ft. run	0	0	4
STOUT herringbone strutting (joists measured in), per ft. run	0	0	6
SOUND boarding, ¾ in. thick and fillets nailed sides to of joists (joists measured over), per square	2	0	0
RUBEROID or similar quality roofing, one ply, per yd. sup.	0	2	3
DO., two-ply, per yd. sup.	0	2	6
DO., three-ply, per yd. sup.	0	3	0
TONGUED and grooved flooring, 1¼ in. thick, laid complete with splayed headings, per square	2	5	0
DEAL skirting torus, moulded 1¼ 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. 1¼ in. thick, per yd. sup.	0	12	0
Maple 1¼ in. thick, per yd. sup.	0	15	0
DEAL moulded sashes, 1¾ in. with moulded bars in small squares, per ft. sup.	0	2	6
DO. 2 in. do., per ft. sup.	0	2	9
DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup.	0	4	6
MOULDED horns, extra each	0	0	3
DOORS, 4-panel square both sides, 1¼ in. thick, per ft. sup.	0	2	6
DO. moulded both sides per ft. sup.	0	2	9
DO. 2 in. thick, square both sides, per ft. sup.	0	2	9
DO. moulded both sides, per ft. sup.	0	3	0
DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup.	0	3	6
If in oak, mahogany or teak, multiply 3 times.			
DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube	£0	15	0
Add for extra labours, per ft. run	0	0	1
STAIRCASE work :			
DEAL treads 1¼ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup.	0	2	6
DEAL wall strings, 1¼ in. thick, moulded, per ft. run	0	2	6
If ramped, per ft. run	0	5	0
SHORT ramps, extra each	0	7	6
ENDS of treads and risers housed to strings, each	0	1	0
2 in. deal mopstick handrail fixed to brackets, per ft. run	0	1	6
4½ in. × 3 in. oak fully moulded handrail, per ft. run	0	5	6
1¼ 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
1¼ in. beaded cupboard fronts, moulded and square, per ft. sup.	0	2	9
TEAK grooved draining boards, 1¼ 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. 9½d. *per hour ;* MATE, *do.* 1s. 4d. *per hour ;* ERECTOR, 1s. 9½d. *per hour ;* FITTER, 1s. 9½d. *per hour ;* LABOURER, 1s. 4d. *per hour.*

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

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

PLUMBER

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

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

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MILLED LEAD and labour in gutters, flashings, etc. per cwt.	3	0	0
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	0
DO. ¾ in., per ft.	0	2	3
DO. 1 in., per ft.	0	3	0
DO. 1½ in., per ft.	0	4	0
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	0
DO. 3 in., per ft.	0	7	0
DO. 4 in., per ft.	0	9	9
WIPED soldered joint, ½ in., each	0	2	6
DO. ¾ in., each	0	3	2
DO. 1 in., each	0	3	8
BRASS screw-down stop cock and two soldered joints, ½ in., each	0	11	0
DO. ¾ in., each	0	13	6
CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run.	0	1	7
DO. 3 in., per ft. run	0	2	0
DO. 4 in., per ft. run	0	2	10
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	2	0
DO. O.G., 4 in., per ft.	0	2	3
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	4	6
DO. 3 in., per ft.	0	3	6
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	5	0
BATHS, with all joints	1	3	6
LAVATORY BASINS only, with all joints, on brackets, each	1	10	0

PLASTERER

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

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

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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. ¾ in., per yd.	0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	7
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	9
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	3
WHITE glazed tiling set in Portland and jointed in Parian, per yd., from	1	11	6
FIBROUS PLASTER SLABS, per yd.	0	1	10

GLAZIER

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

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

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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 6½d. 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.*

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Genuine white lead, per cwt.	£2	7	6
Linseed oil, raw, per gall.	0	3	6
DO., *boiled, per gall.*	0	3	8
Turpentine, per gall.	0	4	0
Liquid driers, per gall.	0	8	6
Knotting, per gall.	0	18	0
Distemper, washable, in ordinary colours, per cwt., and up	2	5	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4½
Single gold leaf (transferable), per book	0	2	0
Varnish, copal, per gall. and up	0	12	6
DO., *flat, per gall.*	1	2	0
DO., *paper, per gall.*	0	16	0
French polish, per gall.	0	17	6
Ready mixed paints, per gall. and up	0	15	0

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

SUNDRIES

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

FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds per ft. sup. . . . from 3d. to	0	0	6
Plaster board, per yd. sup. . from	0	1	7
PLASTER BOARD, fixed as last, per yd. sup. . . . from	0	2	8
Asbestos sheeting, ⅛ in., grey flat, per yd. sup.	0	2	3
DO., *corrugated, per yd. sup.*	0	3	3
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	0
DO., corrugated, per yd. sup.	0	5	0
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	15	0
DO., red	3	0	0
Asbestos cement slates or tiles, ⅛ in. punched per M. grey	16	0	0
DO., *red*	18	0	0
ASBESTOS COMPOSITION FLOORING : Laid in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ 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	1/16 in.			¼ in.			⅜ in.			½ in.		
Qualities ..	AA. d.	A. d.	B. d.	AA. d.	A. d.	B. d.	AA. d.	A. d.	B. d.	AA. d.	A. d.	B. d.
Birch	4	3	2	5	4	3	7½	6	4½	8½	7	6
Alder	3½	3	2	5	4	3	6½	5½	4½	8	7	6
Gaboen Mahogany	4	3	3	6½	5½	4	9½	7½	—	1 0½	10	—
Figured Oak 1 side	8½	7	—	10	8	—	11½	—	—	1 6	—	—
Plain Oak 1 side	6½	6	—	7½	7	—	9½	—	—	1 0	—	—
Oregon Pine	3	4	—	3½	5	—	6	—	—	—	—	—