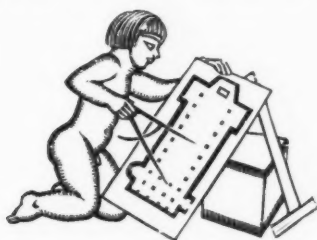


THE ARCHITECTS'



JOURNAL

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The office-building of the Danish Steamship Owners' Association, Copenhagen, by Emanuel Monberg, together with an example of his domestic work, will be illustrated in the next issue.

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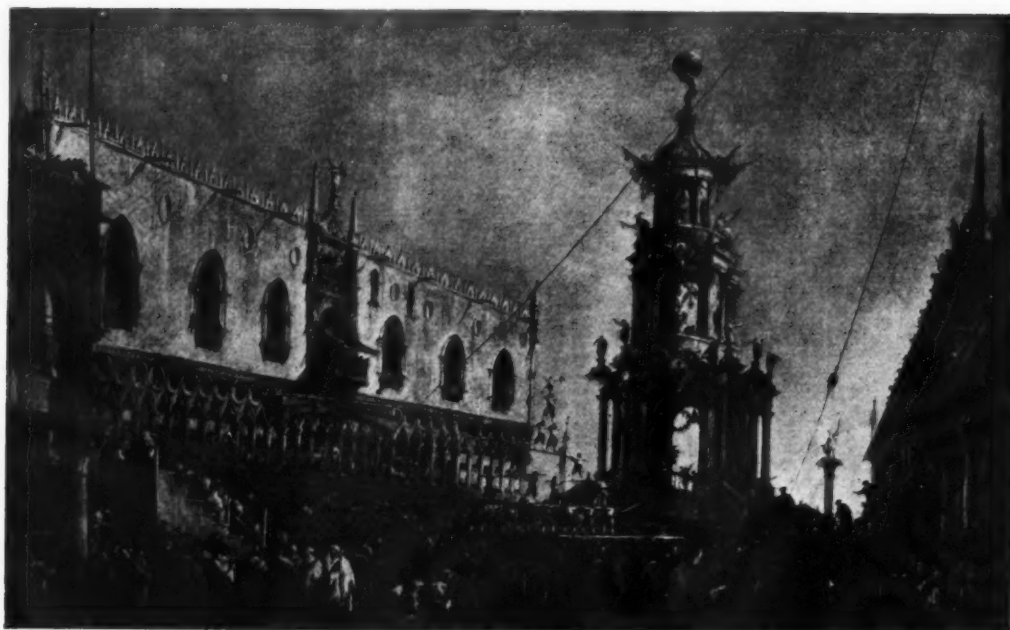
PRINCIPAL CONTENTS

	PAGE
Renderings of Architecture	256
<i>Selected and annotated by Dr. Tancred Borenius.</i>	
xxxiii: Francesco Guardi (1712-93): A Pageant in the Piazzetta.	
A Tale with a Moral	257
<i>This week's leading article.</i>	
News and Topics	258
<i>Astragal's notes on current events.</i>	
Clerkenwell in the Early Nineteenth Century: ii. .. .	260
<i>[By G. Ll. Morris.]</i>	
Current Architecture:	
Mr. Oliver Hill	263
<i>[By H. J. Birnstingl.]</i>	
Tribulations of Early Practice	275
<i>[By Karshish.]</i>	
ix: Contract Documents.	
Building and Decorative Timbers	277
<i>[By G. A. T. Middleton.]</i>	
ii: European Timbers.	
The Competitors' Club	279
<i>[By Seneschal.]</i>	
The Geneva Programme.	
Competition Calendar	280
Correspondence	280
<i>[From Harry Barnes, Edward R. Bill, and W. Forbes Campbell.]</i>	
New Inventions	281
Cardiff Technical College	281
Obituary	281
Law Reports	282
The Week's Building News	283
Rates of Wages	284
Prices Current	285

The Index to Advertisers will be found on page iv.

CHRISTIAN BARMAN, Editor

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



RENDERINGS OF ARCHITECTURE

Selected and annotated by Dr. Tancred Borenius.

xxxiii: Francesco Guardi (1712-93).

A Pageant in the Piazzetta.

This painting forms part of a series of twelve pictures representing various ceremonies connected with the election of the Doge and with a number of church and other festivals in Venice: seven of these pictures are now in the Louvre, two in the Gallery at Nantes, and one at, respectively, Brussels, Grenoble, and Toulouse. They are evidently based on a set of engravings by G. B. Brustolon, who himself had probably derived his inspiration from a series of drawings by Antonio Canale (Canaletto). In the present picture we witness the scene in the crowded Piazzetta on the Giovedì grasso (Thursday preceding Lent), when a huge temporary structure has been erected in the centre of the square, while in front of it a number of men are performing a feat of athletic prowess known as the "Forze d'Ercole," very characteristic of eighteenth-century Venice and described, e.g. by Addison. As a spirited interpreter of the crowd and the fantastic architectural setting of Venice, Guardi is here seen at his best.—[Paris, Louvre.]



Wednesday, September 1st, 1926

A TALE WITH A MORAL

THERE was once a certain man who wanted to have built for him a small house which should be eligible for a Government subsidy. He knew that there existed persons calling themselves architects, but he had the vaguest notions as to their functions, and so he went to a builder to whom he confided his requirements. In due course he received some drawings on a piece of tracing linen measuring about 15 in. square. The client-building-owner was mightily impressed with these, and told the builder to go ahead and get the local authority's approval. This was soon obtained, and the word was given to begin operations. The builder countered with a demand for the payment in advance of several hundred pounds. Then it was that our friend's qualms were aroused. Hitherto he had been buoyed up by enthusiasm, but now he was fast becoming submerged under doubts. He talked to a friend. The friend advised him to employ a surveyor to safeguard his interests during the building operations. He liked the idea, and went to see a surveyor whose name had been given to him.

Now this surveyor happened to be a young architect, with a great many very excellent houses to his credit. When he heard what was expected of him, and when he saw the square of tracing linen, which was, together with the builder's price, to constitute the sole basis of an implied contract, he refused the task. He must have a proper drawing and some sort of a specification. Would he prepare these? Yes, he would. Not being particularly anxious for this work of supervision, he named a fee which nearly equalled that of the appropriate fee for full architectural services. Our friend accepted it.

Then it was that the architect pointed out that for a very slightly larger sum he would re-design the whole house and, in fact, act in his full professional capacity. At first the client demurred. He thought this was a very excellent design, a very fine piece of work, upon which there was no room for improvement, and the plan exactly fulfilled his requirements. Then the architect proceeded to draw his attention to some of the more obvious defects. The chief sitting-room faced north. Both the sitting-rooms were so awkwardly planned that there could be no comfort for those drawn up near the hearth. The scullery and kitchen were quite unnecessarily distant from the bathroom; the superficial area of the house could be increased and yet remain eligible

for the subsidy; finally, he held forth, a little more tentatively perhaps, on the extreme ugliness of the two elevations presented. The client's faith was certainly shaken, but he was as yet not quite convinced. He had never thought to put himself completely in the hands of an architect, whose ways he had regarded as something altogether "artful and foreign." It was a dreadful step, and he must think it over.

A day or two elapsed, and then the architect received instructions to begin *de novo*. In less than a week our hero was back at his architect's office. There—laid before him was an elegant, tidy, complicated drawing, the like of which he had never seen, and there beside it was a charming little water-colour sketch. Could that possibly ever be his house? The architect assured him that this could, indeed, be his house, and at (he thought) no greater cost than the hideous erection on the now despised piece of tracing paper.

Then the contract was explained, and our friend's happiness increased when he learned that he was not to be called upon to pay something in advance; a demand which had outraged all his business instincts. And when he learned about the retention sum his admiration for the architectural profession knew no bounds. He was not only to have the goods—as he vulgarly put it—before he paid for them, but he was to have someone to tell him if they were the right goods. He was, indeed, a happy man, but everyone was happy, including the original builder, who was willing enough to admit that his function was to build houses and not to design them, and whose tender, submitted in competition, was the lowest.

Now this story is, we fear, a typical one, and, as is indicated by the title, it has its moral which (with apologies to a well-known motor-tyre manufacturer) is—"Employ an architect and be satisfied." Somehow the architectural profession must popularize, if not this very slogan, at least the message which it contains. The public must realize that there are no short cuts to satisfactory building, and it is through the retailing of stories such as the above that enlightenment may be brought about. Most architects will have tales of their own to tell; to those who have not we commend our own true story, and we should like to think that we are about to inaugurate a subtle publicity campaign by its means. "Employ an architect and be satisfied."

NEWS AND TOPICS

MR. DROWER has once again been analysing the high cost of present-day building, and has reduced it to five main causes—high wages; low output by workmen; bad organization of work; dearness of materials; builders' excessive profits. And the conclusion to which he comes is that labour and organization are, for the most part, responsible for the position to-day. As he points out, although the actual increases in wages are 87 and 106 per cent. for mechanics and labourers above the pre-war figures, as a result of the present low output the effective increase is 115 per cent. Now, although 87 and 106 may not be unreasonable figures when considered in relation to the increased costs and the higher standards of living, 115 is unreasonable, and results in a disproportionate increase in the cost of building generally.

Mr. Drower points out what in fact every architect must know, what indeed everyone connected with the building trade must know, that where the restrictive trade union rules have been set aside the cost of building has materially decreased. It is possible that the implicit trust which members of trade unions generally have hitherto placed in doctrinaire leaders may be somewhat shaken owing to events in the coal industry: if that be so a very real improvement may be looked for in the building trade. I do not believe that these restrictions are really popular, but rather that the operatives have been led to believe that that way lies salvation. But does it?

* * *

The building trade as a whole is, of course, a protected industry and is not affected by foreign competition. With regard to brick making, however, this state of affairs is changing, and many brickfields, especially near the coast, are seriously threatened. The position of the Peterborough brickfields is not so serious, and Mr. Drower points out that the London Brick Company, the largest of the Fletton group, had an output of 550 millions during 1924, and paid 15 per cent. on its ordinary shares, or about 12½ per cent. on its total capital, and it yet held its own against foreign competition. This may at first sight seem a high profit, but it must be remembered that the industry is subject to fluctuations. Moreover, it is pointed out that even were the entire profit eliminated, the saving on a £500 house would be £4 10s., whereas the laying of 750 bricks a day instead of 450 by bricklayers would effect a saving of £16. The brickmakers of Sussex, Surrey, and Kent, however, are less fortunate, for foreign bricks can be bought along the coast at the same price as it costs the local fields to produce them. The values of imported bricks during June 1924, 1925, and 1926 are £16,577, £43,054, and £57,764. Once again the difficulty seems to be with the labour element, for it is the comparative cheapness of foreign labour which makes this state of affairs possible.

The matter is really one for economists to think out, for on the one hand we require houses to be produced as cheaply as possible, and every addition to their cost takes something from the besieged pocket of the tax and rate payer; on the other hand, by purchasing foreign bricks the tax and rate payer is assisting foreign trade and increasing unemployment, for which he also has to pay. I'm afraid it's a case of heads I win, tails you lose, every time!

I have just heard that there has been planned a new type of city, an "air town," whose authors claim that it is the prototype of the great cities of the future. This new experiment in civic design is taking place near Racine, Wisconsin. The town will depend for its prosperity upon the special suitability of its position, natural surroundings, and local weather for becoming an important airline junction. Instead of spreading from harbour or railway or road junction it will, it is hoped, spread outwards from a large well-equipped aerodrome fed by airlines from all over America. Wide, open spaces will be preserved as the town grows in order to retain its essential excellence as an air harbour. This seems an interesting project, yet its originators will require to exercise great caution in any architectural dispositions which they create for the special purpose of serving the needs of aircraft of the future, for unexpected developments may take place in the science of flying which might easily render out of date arrangements of buildings devised to meet present conditions. Perhaps in the future wide, open spaces will not be needed for aeroplanes to alight in, but merely a small flat roof upon which neat little helicopters, having slowed down the speed of their flight, could come to rest without the slightest difficulty.

* * *

Some interesting discoveries have been made during the work of excavating the Roman villa at Ashted, Surrey. The villa was large, well constructed, and, as far as dating from the coins and pottery can be relied on, was existing in the first century A.D. No expense or labour was spared to obtain suitable materials, even from a great distance, stone from as far as Somerset being employed in the bath house, and fragments, still retaining the original polish, were found. Window glass was employed as in all the Roman-British villas, and many pieces have been dug up. The baths, an essential feature of every Roman villa, were found to be quite apart from the main structure. The original building had three main rooms, namely, a circular room, 17 ft. in diameter, and not heated, but evidently intended to receive the maximum amount of sun; a heated room, 20 ft. by 10 ft., many of the *pilae* or floor supports still *in situ*, and heated from the furnace at the west end; and a small room with the remains of an apsidal recess, which originally may have contained a small stone-lined bath, of which fragments were found. Several iron bands for connecting wooden water-pipes were also found just outside this apartment. Only one room of the main building as yet has been cleared, revealing a plain red tessellated pavement, approximately 15 ft. square, and having a hearth of small bricks built against the S.E. wall. Among the finds of special interest are a small piece of gold chain, 3 in. long, and comprising nineteen links; coins of the time of Claudius, Vespasian, Trajan, and Hadrian, several complete box-flue tiles, one bearing in relief a hunting scene and lettering, and a considerable amount of pottery, Samian and coarse wares.

* * *

At a time when several historic mansions are threatened with destruction and others are actually in process of being demolished, it is specially gratifying to hear that the celebrated Chiswick House is now likely to receive a new lease of life. By the recent arrangement with the Joint Electricity Authority, Chiswick District Council is to receive

this mansion and its grounds in return for 45 acres of the Duke's Meadows. The power station to be erected on those 45 acres will eventually be wedged in between the Thames playing fields and the Chertsey arterial road. It is not very far from the site of the power station to Chiswick House, which, hardly less than its neighbour, will benefit from the opening of new ways out of London to the west. It has been suggested that the mansion would be an ideal place for a western art gallery. If this were done Chiswick House would be restored to the purpose for which it was built. When, in 1727, Richard Boyle, Fourth Earl of Cork, and Third Earl of Burlington, first conceived it, his intention was to live in a Jacobean house which his ancestors had left in the grounds and to build a new mansion for the pictures and sculpture he had brought from Italy. By 1736 a Palladian design had been executed comprising a series of reception rooms. Lord Burlington claims the credit for having designed Chiswick House, but according to Sir Reginald Blomfield, Campbell and Kent, the professionals, were really responsible for it and Lord Burlington only paid the bill.

* * *

Chiswick House is one of those mansions which have a stateliness no longer in accordance with our conceptions of domestic architecture. Even in the eighteenth century there were critics who questioned the appropriateness of these columnar splendours to a private dwelling place. We are all familiar with Pope's lines: "Where d' ye sleep and where d' ye dine?" and "Proud to catch cold at a Venetian door." Yet at the beginning of the eighteenth century the conception of architectural state was a comparatively new one in this country, and it was but natural that both architects and their patrons should wish to introduce this quality of state on all occasions when there was money forthcoming to pay for it. And there can be no doubt that civic architecture as a whole immensely benefited by this predilection for an extreme dignity and stateliness in design. The garden front of Chiswick House is characterized by a hexastyle pedimented portico of the Corinthian order standing upon a basement surmounted by a balustrade between the columns and approached on either side by two double flights of steps converging to the flanks of the portico. The basement is continued around the building and is well dominated by a tall principal story crowned by full entablature. The building should make a noble picture gallery, and it is to be hoped that the trustees of the country's art will find the means of utilizing it for this purpose.

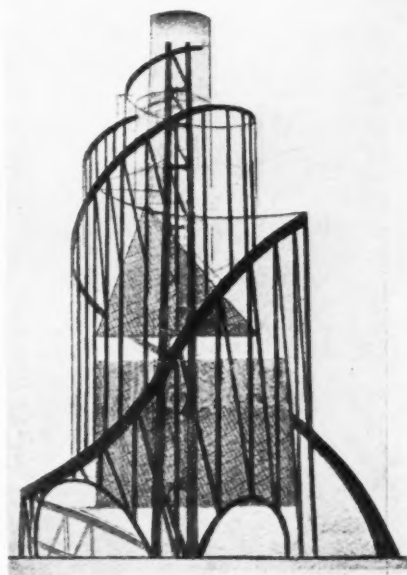
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Some correspondence has recently passed between the Egyptian Government and a group of distinguished architects and antiquaries on the subject of the proposed reconstruction of the famous and venerable Mosque of Amru. Last year the Egyptian Ministry of Pious Foundations invited architects of all nationalities to submit designs for a scheme of reconstruction of the Mosque "as in the time of its greatest splendour." This invitation and its conditions were published in the official Egyptian Journal and their publication aroused the concern of numerous artists who framed a memorial setting forward their reasoned objections to the proposed reconstruction which, in their opinion, necessarily involved "a fundamental and comprehensive modernization." The signatories to this

memorial describe very clearly the distinction between "reparation" and "reconstruction," and they point out: "It is clear that the Mosque is to be rebuilt rather than repaired. We have had much experience in this country of the great divergence between these two methods of handling an ancient building. Some of our most famous and historic structures have been treated on lines similar to those laid down in the instructions issued by the Egyptian Ministry. The result has been uniformly unfortunate. It is found that the architect in trying to revive the style of the original building becomes a copyist of the old details. Even when accuracy is attained, which is by no means always the case, his work assumes a mechanical aspect lacking all the freedom and initiative of the original craftsman, and as the work progresses it becomes more and more necessary in order to perfect his reconstruction to sacrifice increasing quantities of the original building, the removal of which is often quite unnecessary." Unfortunately, however, the competition had already been instituted when the protest arrived, and it was considered by the Egyptian Government that the 500 architects who had accepted the invitation to submit designs for the reconstruction of the Mosque of Amru would rightly accuse it of breach of faith if it did not adhere to its original intentions.

* * *

Here I give something that is like a spiral staircase—(by the Mass! and 'tis like a spiral staircase, indeed)—or a water-shoot (it is shaped like a water-shoot)—or a helter-skelter lighthouse (very like a helter-skelter lighthouse)—but it is neither. It is a Russian artist's notion for a



memorial to the Moscow Third International. And I should say it has been designed to resemble the watchtower in Tolstoy's story of "Ivan the Fool"—that watchtower down which the Devil himself fell heavily as the result of demonstrating to the peasants how to "work with the head."

ASTRAGAL

CLERKENWELL IN THE EARLY NINETEENTH CENTURY: ii

[BY G. LL. MORRIS]

IF the Metropolitan Public Gardens Association, by whom Wilmington Square was laid out in 1885, had accomplished no other good work, it would still have earned the goodwill of every Londoner. This garden and the one in Northampton Square were obtained in 1885 by the Metropolitan Public Gardens Association from a former Marquis of Northampton. It laid them out as public gardens at a cost of over a thousand pounds (£1,000), and it also maintained them for several years at its own expense. They were then transferred to the Clerkenwell Vestry, which, in its turn, gave place to the Finsbury Borough Council, the body now responsible for their maintenance. When these enclosures came into the possession of the Association they were in a shabby and very neglected condition. It is also stated, on the authority of the late Marquis of Northampton's agents, that the conversion by the Association of this area into well-kept public gardens raised the tone of the whole locality, and had the effect of rendering the adjacent house property very attractive to tenants and increasing its letting value. [Extract from a letter to the writer from Mr. Basil Holmes, the secretary M.P.G.A.]

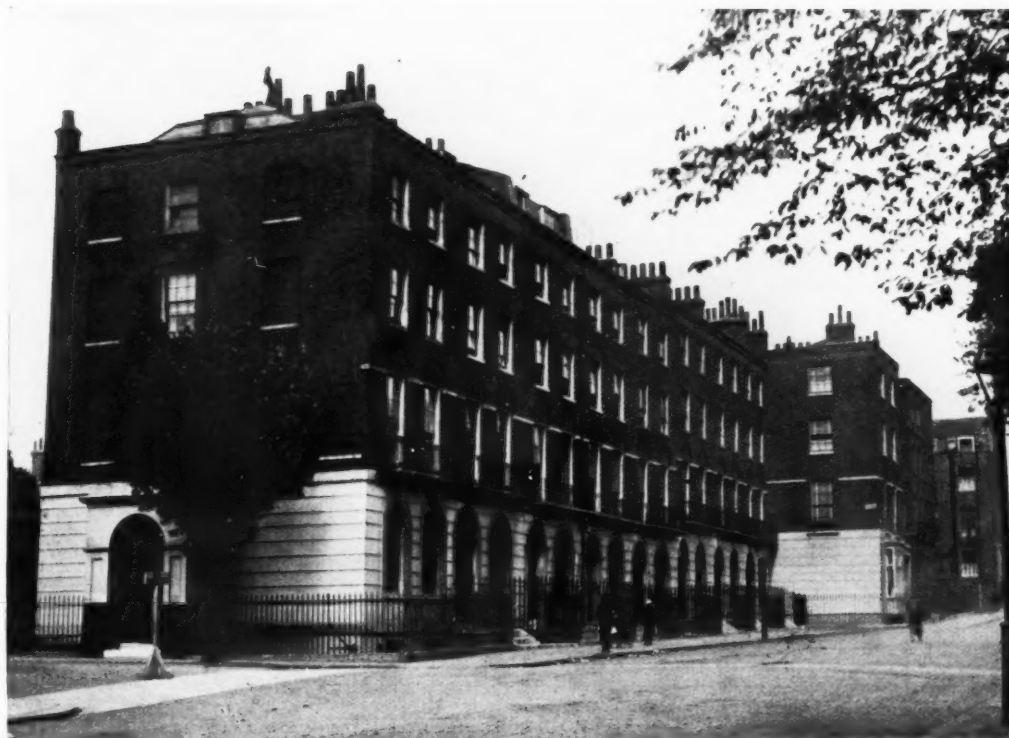
While the area round about Wilmington Square was in course of being built upon, Lloyd Square and Sharpe's Square (the latter now called Granville Square) were being planned. Myddelton Square, including the adjacent streets,

Upper and Lower Chadwell Street, Amwell Street, and River Street, had been for some time in course of building; Clarendon Square, also to the north of it, was well on the way to completion. Carlyle described the houses in Myddelton Square as "bright and smart, but badly planned as usual." Professor Richardson, in a reference to the same square, states that it is the best place to see the third-rate London house of the period; he also mentions that one of these houses in 1837 would have been occupied by a prosperous tradesman from Finsbury or Cheapside, whose wife was too proud to live over her husband's shop. It is a rather shabby but cheerful place flanked by respectable houses, and in the past was often the home of the professional man.

In the year 1827 Thomas Dibdin, the writer, resided at No. 25, and in an account of the square he says: "The house in which I write is situated in a spacious square, the centre of which is ornamented by a superb specimen of architecture in the form of a handsome church. The site of the square and church not five years since was an immense field, where people used to be stopped and robbed on their return in the evening from Sadler's Wells, and the ground floor of the parlour where I sit was as nearly as possible the very spot where my wife and I fell over a recumbent cow on our way home one murky evening in a thunderstorm,



Wilmington Square. Part of the north-east side.



and only regained the solitary path we had strayed from in the dark by the timely aid of a tremendous flash of lightning." One of the approaches to the square is named after the architect Milne, to whom or, at any rate, to whose influence may be attributed a number of the adjacent streets. The church described and praised by Mr. Dibdin is one of the ecclesiastical buildings erected at the expense of, and by the authority of, George III's Commissioners. It is from the design of Milne, and stands on the west side of the garden facing the end of Upper Chadwell Street. The houses here are of five stories. Mr. Dibdin must have seen the building of Amwell Street and the southern side of Claremont Square, both near by.



Claremont Square is situated on the southern side of Pentonville Road, and the houses are much like those in Myddelton Square. It was round about here that Dickens lodged that example of humility Uriah Heep in a house, said Uriah, that was "a sort of private hotel and boarding 'ouse, Master Copperfield, near the New River 'ed."

When the square was finished it was considered one of the greatest improvements the parish had achieved for many a year. On three sides it is flanked by five-storied dwellings, the remaining side being formed by the houses facing Pentonville

Above, Myddelton Square, Clerkenwell. Below, Corporation Row. Part elevation of south side.

Road. The middle is occupied by the reservoir of the Metropolitan Water Board, which at one time was called the High Pond. The reservoir is high above the roads, its sides covered with shrubs and grass protected by iron railings, except on the side next Pentonville Road, which has a high brick wall. This centre was constructed some time before 1730, and at first was enclosed by a wooden paling. To this succeeded the high brick wall which remained until 1826, when an iron railing was substituted, and the form of the enclosure modified. By this date the larger part of the square had been built. These alterations were carried out by the New River Company, assisted by the trustees of the Turnpike Road, and subscriptions from some of the occupants of the surrounding houses. The tenants of the houses in Pentonville Road, however, refused to help, and as a result the brick wall was re-erected, and so it remains to this day.

Pentonville Road, which crosses the north side of Claremont Square, is part of the original New Road. When it was formed the "space between it and the parts of all buildings flanking its sides was fixed by the Act which authorized its formation" at not less than 50 ft. This Act was occasionally ignored, for about 1826 a case was decided in the Court of Law against a party who had built upon the space so enacted to be left open. [*History of Clerkenwell*, by Thomas Cromwell, p. 330.] If this Act had not fallen into desuetude a far larger number of fine residential streets would have survived from this building period. The New Road was planned on spacious lines, and looking down this part of it from the Angel towards King's Cross, it is not difficult to imagine the fine road it might have remained. Not only here, but in all parts of London, these front gardens or forecourts have been put to uses for which they were not originally intended. In this road there are several glaring examples to show how callously Londoners deface their city. Opposite Claremont Square at the corner of Penton Street four of the front gardens are used as an open store-place for stone and marble, etc., and towards King's Cross on the opposite side the same thing occurs again. Near the Angel some have been utilized and covered with one-story buildings. The gardens of a fine terrace of

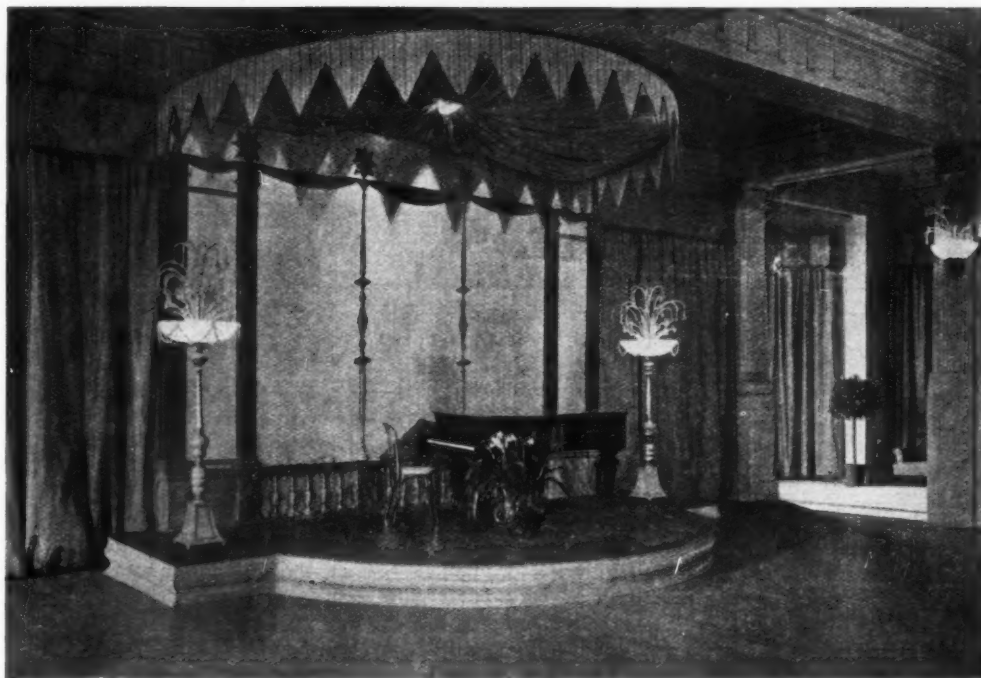
houses on the south side of the road and close to the Angel are still intact, though even here one may see how they are at first neglected and finally turned to some such purpose as above described. Surely it would not be difficult to devise a means of treating them as part of the public thoroughfare, as at Compton Terrace, Islington, or Oxford and Cambridge Terrace, off the Edgware Road.

South of Pentonville Road, and reached by way of Amwell Street and Baker Street, is Lloyd Square. It was planned in 1826, and begun two or three years later. It is called after one of the Christian names of the owner, Thomas John Lloyd Baker, who was also responsible for Baker Street, begun about 1823. The houses here are of three stories—basement, ground and first. They are built in linked pairs, the entrance doors being set back in a recess with open porches slightly behind the face of the main structures, which they effectively link together. On the north and south sides there are five pairs, and three pairs on the west, the remaining side being occupied by the "House of Retreat," a red brick building several stories in height. In Wharton Street, one of the approaches to the square, the same treatment is followed out, with railings over the porches. In Cumberland Terrace, and Lloyd Street adjacent, there are similar houses, and others not unlike them in Hardwick Street, near the home of the Metropolitan Water Board. Though there is nothing particularly striking in the architecture of these houses, they have a certain distinction and breadth of treatment unusual in small houses. They have a Quaker-like simplicity. Both Lloyd Square and Granville Square, with some of the streets near by, were built on the site of a tile kiln. The considerable drop from the latter square to King's Cross Road is due to the excavation for clay which fed the kilns. A Mr. Randall was the owner. His lease expired in 1828, and upon obtaining a renewal of it he soon began to build upon the ground. Quite a number of other squares were laid out and built to the northward. There were Holford, Percy and Vernon Squares, and also Percy Circus. A school now stands on the ground which was occupied by Percy Square.

[To be concluded]



Mylne Street, looking towards Myddelton Square.

CURRENT
ARCHITECTURE
SECTION

MR. OLIVER HILL

[BY H. J. BIRNSTINGL]

WHEN the editor asked me which of the younger architects of to-day I would care most to write about, I replied without hesitation, "Oliver Hill." I had my reasons. To begin with, Oliver Hill has an affluent clientele, and without plenty of money no architect can produce great work. I know that this is, at the moment, a heterodox opinion, at least, it is considered so by those who are bent upon making a virtue of necessity. These people try to make out that housing affords the greatest architectural opportunity of the day. This, of course, is nonsense. Housing may yield opportunities for good architecture and for beautiful architecture, but never for great architecture. There is beauty in a song of Schubert, but there is greatness in a symphony by Beethoven. Both may be perfect, but both are not great art. Great art needs the sustained effort, the breadth of vision, the big opportunity, and in architecture only money can give these requisites. I do not want to offend any political susceptibilities, but if under the socialist state there is to be an even distribution of wealth, then great architecture must surely die. That is one reason why I have chosen to write about the work of Oliver Hill. Another reason is that I do not believe—and I make this statement as a result of a study of Hill's work—I do not believe

that Oliver Hill has any theories about art; he has good taste. Now I do not think that I hold with theories about art. I do not think that the people who insist that unless the proportions of a window be such that the square of the hypotenuse equals the difference between the cube of the diagonal and the square root of X, the building is a bad building, will ever produce or appreciate great art. Mathematics and art are *at present* as ill-assorted as a bishop and a ballet dancer. I am not at all sure that the man who says "I don't know anything about architecture, but I know what I like," is not more fitted to be a critic than he who can talk about balance and rhythm, because, maybe, his is a true aesthetic criticism.

Now I think that Oliver Hill has exceedingly good taste, and as taste is a matter of taste, no one can refute the statement. I admire his work, not only because, in my opinion, it displays good taste and is beautiful, but because it is always vital, always virile, and almost always inspirational, and where use is made of old motifs and old themes his mind is an alembic. Furthermore, he is immensely

versatile; a quality redounding to the artist rather than to his art, since Beethoven's Seventh Symphony is no greater because of Sonata Opus 101, but Beethoven is a greater man in that he wrote them both. And although the

Above, The Grand Hotel, Harrogate. By Oliver Hill (1925). The new ballroom. The orchestra 'dais has a background of a Chinese-silver material, on which coloured flood-lights are thrown.

Argyllshire house is not a greater work of art because of Wilbraham House, Hill is a greater artist in that he designed them both.

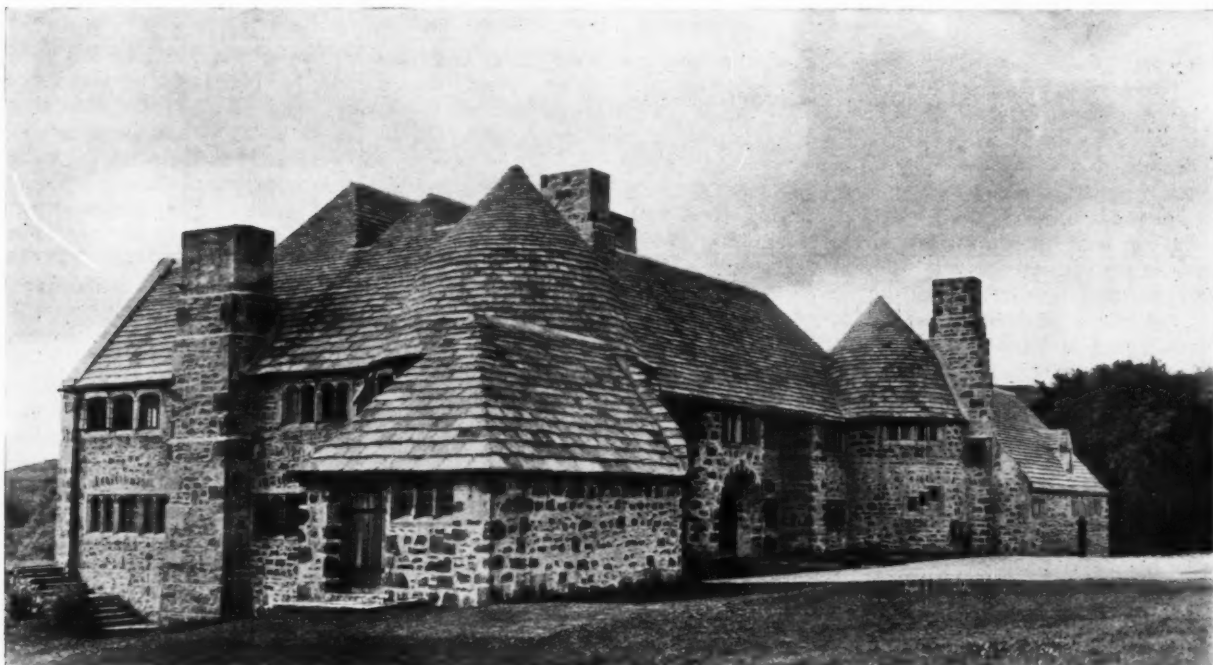
Nowadays everyone knows too much—or not enough, it comes to the same thing—and clients think they know what they want, and what they want is generally a pastiche. Oliver Hill seems to give his clients what they want, and also what he wants them to want, and the result, even if it is sometimes a little bit inclined to be Wardour Street architecture, is never a pastiche, in fact it is never the genuine Wardour Street product. After all a country house must bear some relation to its natural setting, and Nature is never iconoclastic. And so a respect for the natural environment is essential, and as this respect consists to some extent upon an adherence to local tradition, the house must bear a familiar look, because Nature bears a familiar look. Precisely to what extent and at what cost it is necessary to preserve this appearance of familiarity it is impossible to say, and indeed the extent and the amount vary with each observer, since appreciation is personal. In urban architecture, and in those large houses whose natural setting has been wrought upon by man, this delicious tyranny of Nature is less emphatic, and within the house the architect has his greatest freedom.

Perhaps Hill's most important work is one in which his taste and sense of fitness have compelled him to show a respect for his environment. His house in Argyllshire slips into its setting with a delicious inevitability, and becomes, indeed, a part of the landscape whose very characteristics it seems to epitomize. The plan, too, no less than the elevation, has this fitness, and there is a fine stoniness about its sweeps and curves. Discussion as to the necessity for a relationship between material and form has done infinite harm to the practice of architecture, but, be that as it may, the plan of the Argyllshire house is a stone plan. And how nice it is to see a modern plan with a great kitchen, vast pantry, a still room, and a battery

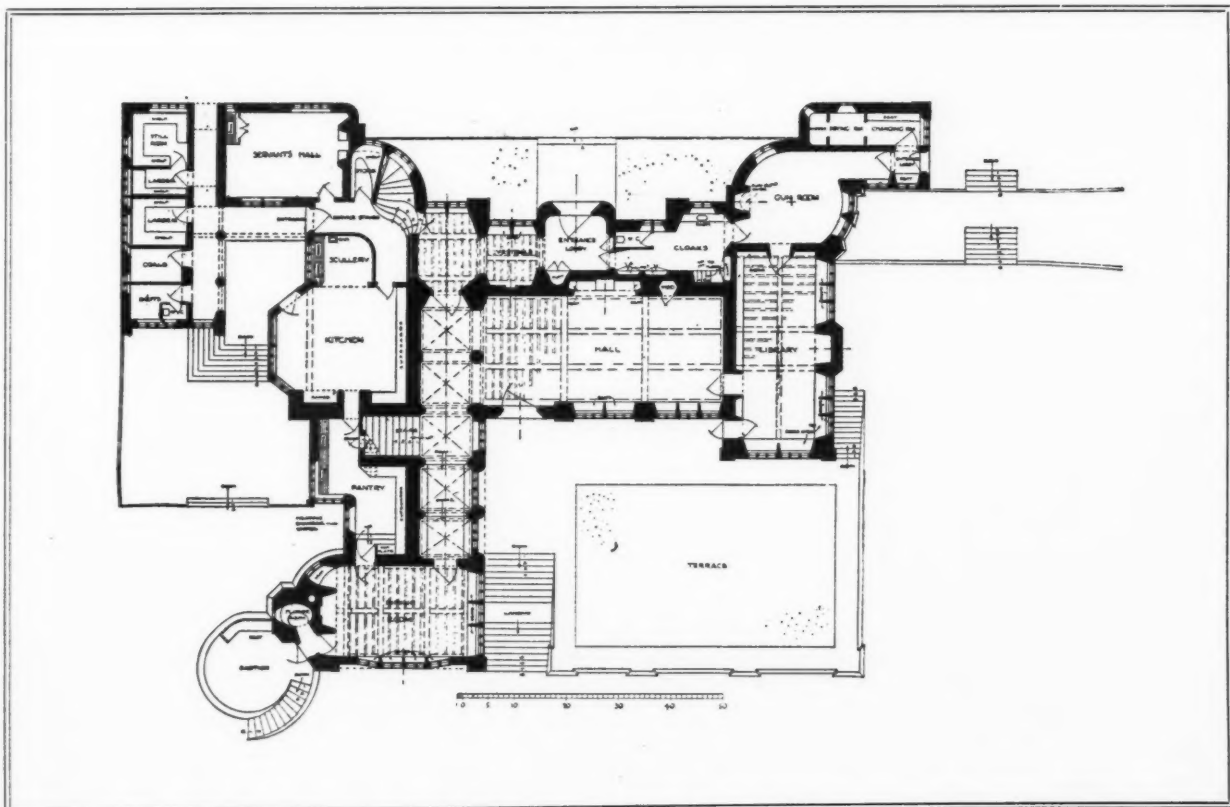
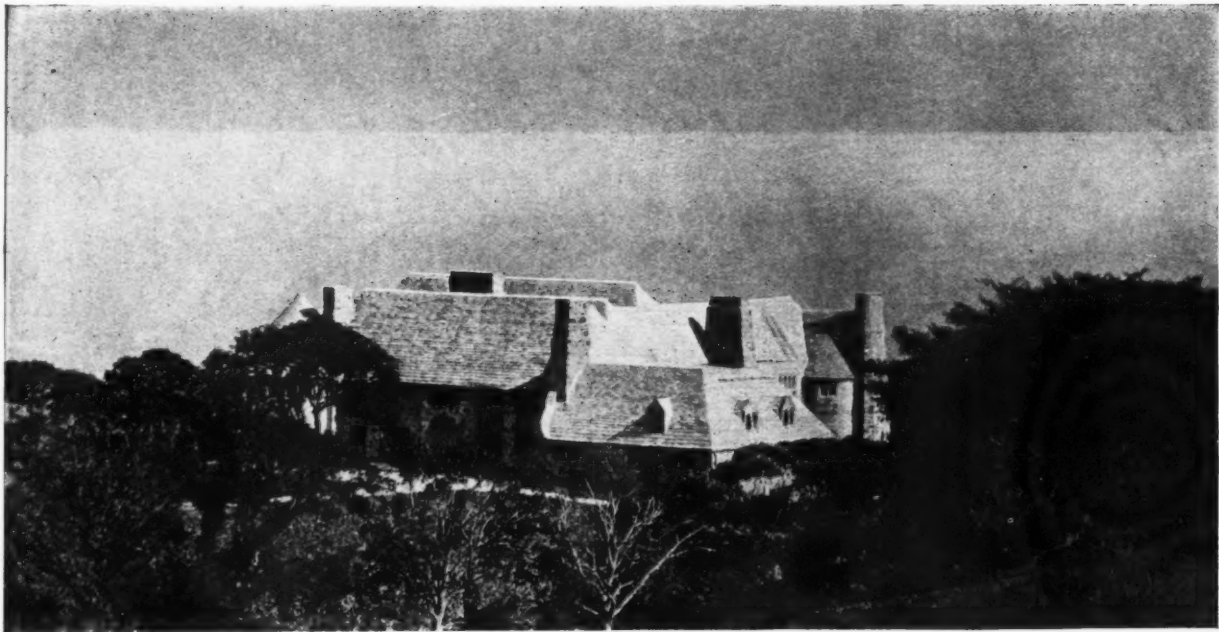
of larders. I am gladdened by the thought that there may still be houses that serve the great breakfasts that I read of in Trollope; that there may still be people whose minds are uncankered by the everlasting desire for movement and excitement, for this house has about it a sense of leisure and of decency.

From Argyllshire, I would take you to Devonshire to see a house at Croyde. Setting, tradition, materials, and even climate are different, yet there is a certain similarity between the two houses. Hill is of course the common denominator. Croyde no less than the other house fits; but with what skill it has been planned and modelled, with what a sense of form and fun it has been conceived. It fairly ripples with mirth. What a house for children to grow up in.

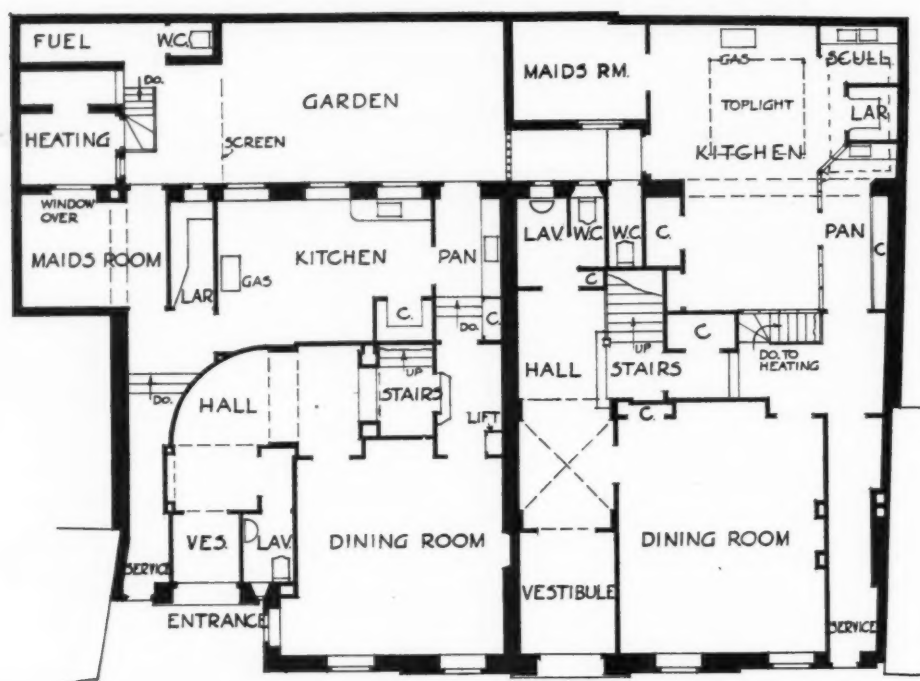
And then we turn to Aldeburgh, built, it is worth noting, both in time and space between the other two. This is one of Hill's contributions to the tendency of the day towards compactness and economy. The house at Aldeburgh is four-square and orderly, but it is not hampered by that blight of parsimony which wilts the inspiration of so many architects to-day. In an age and country whose scale of values ordains that motors, cinemas, and dancing have the first call on the purse, the architect is sadly thwarted. The sloping site of Sandhill has given Hill an opportunity with the garden of which he has taken the fullest opportunity. Although I think the kind of garden he likes best are those with even more formality of parterre and patterned terraces and pavings, of walls and pools such as at Binfield or even in the skilfully-planned little garden of Wilbraham House. And Wilbraham House leads me to another aspect of Hill's work. If you enter Wilbraham House by the front door you must go up five steps and as you wait for the door to be opened you will—assuming you to be as observant as I am—notice the shape of the steps. There you have Hill the decorator, the man who has a sense of form something akin to Fischer von



A house in Argyllshire. By Oliver Hill (1921). The entrance front.



*A house in Argyllshire. By Oliver Hill (1921).
Above, a general view. Below, the ground-floor plan.*



*Houses in Smith Square, Westminster. By Oliver Hill (1925).
Above, the entrance front. Below, the ground-floor plan.*



No. 15 Hill Street, Mayfair. By Oliver Hill (1924). *The boudoir.*

Erlach, and something akin to the modern Swedish architect. Forms without curves may be hygienic, but they are certainly humourless. Let a man loose with a pencil and he does not draw straight lines, unless his spirit is broken by a chorus of housewives moaning about dust-traps and saving labour, and so there are plenty of curves about the inside of Wilbraham House in ceilings and fireplaces and stairs, and in the very shape of the study.

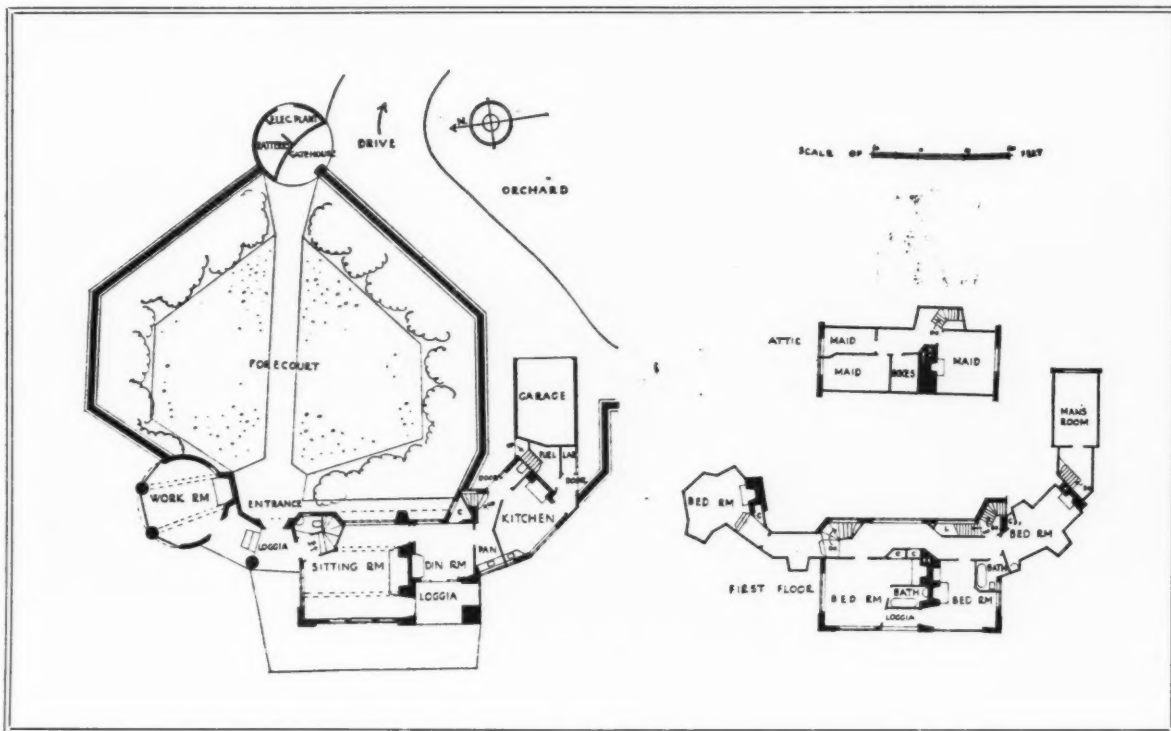
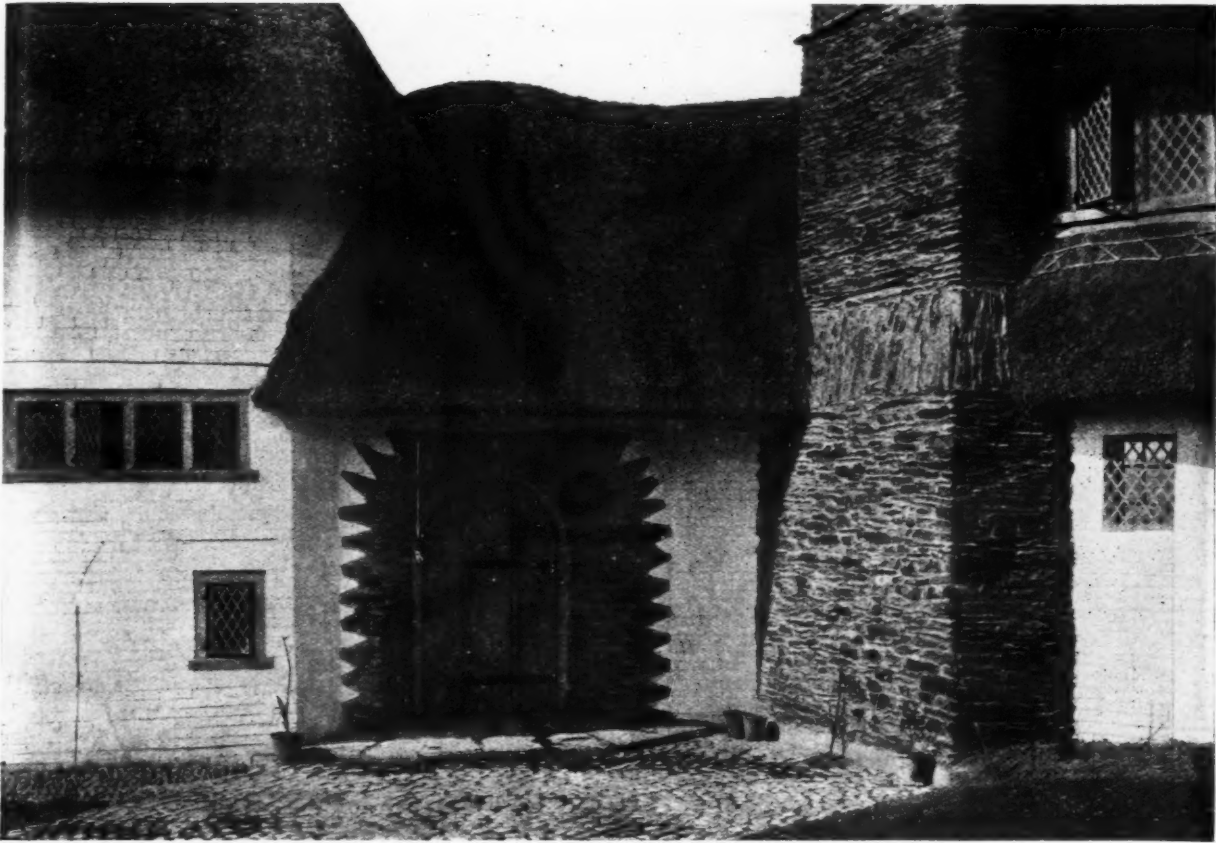
Hill, the decorator, has scope in the interiors at Lyne Grove—look at the delightful shape of the table legs; and in the ball-room of the Grand Hotel, Harrogate, with its silver flood-lit backcloth to the dais; and in many another

interior where he has experimented with coloured foil wall surfaces, and with a variety of colours, forms, and textures.

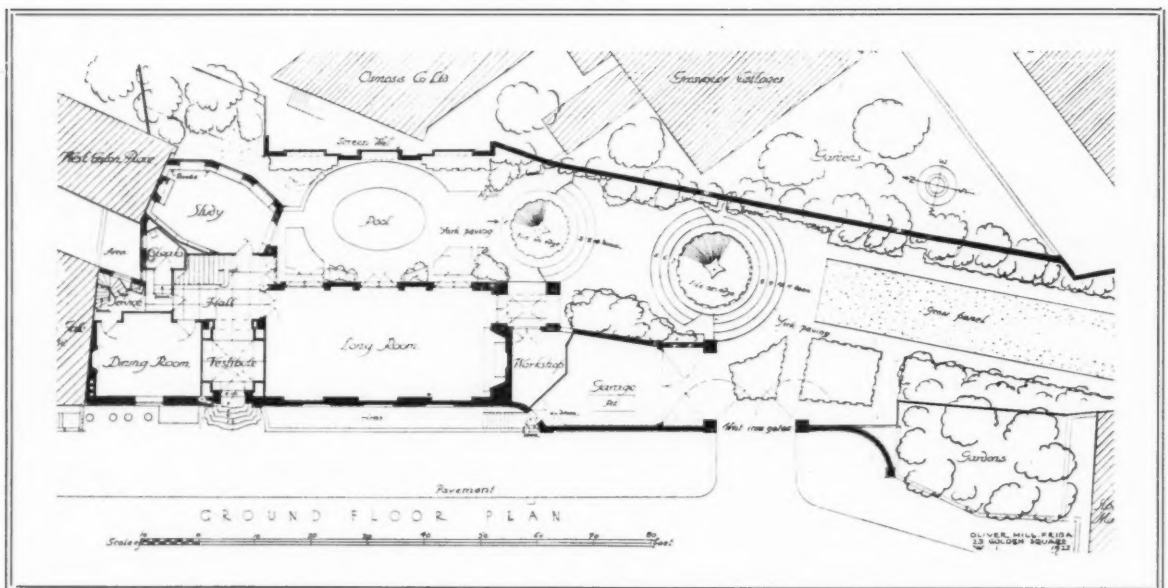
Goodness knows we need all the beauty we can get hold of to counteract the flood of vulgar ugliness that pours across the Atlantic, so I for one would wish that a constant stream of well-to-do clients would hammer at the door (and a very charming old French door it is) of Oliver Hill's office in Golden Square; for I believe his brain is seething with ideas, and it is a national duty to give them opportunity for fulfilment. [The names of the contractors and sub-contractors who executed work on the buildings illustrated, appear on page 281.]



*Croyde, North Devon. By Oliver Hill (1925).
Above, the seaward side. Below, the forecourt.*



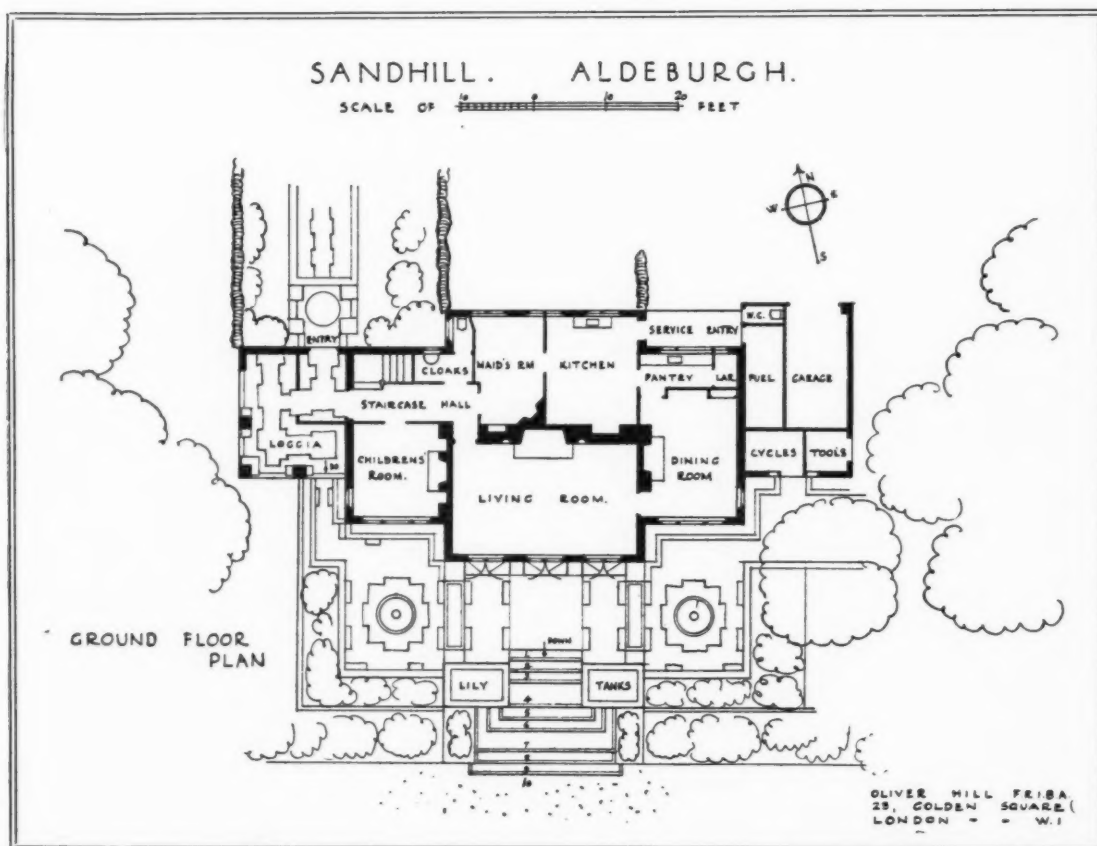
Croyde, North Devon. By Oliver Hill (1925).
Above, the loggia entrance. Below, the plans.



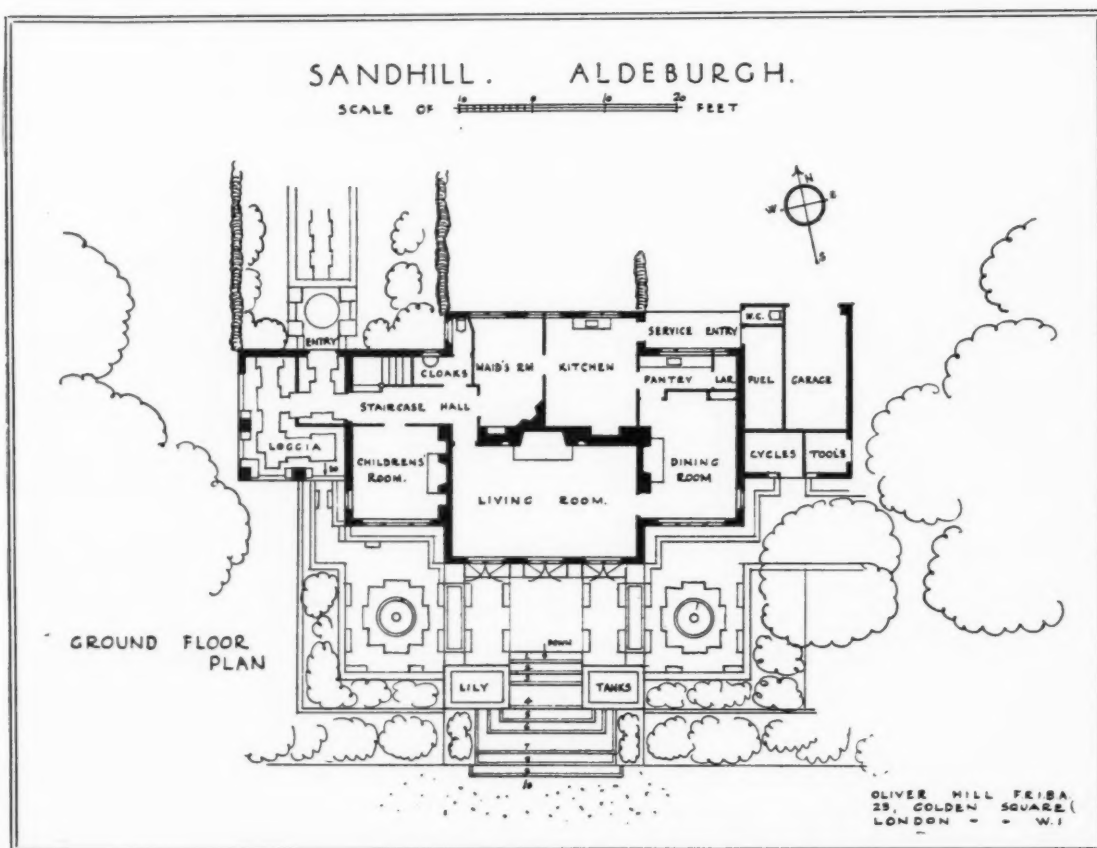
Wilbraham House, London. By Oliver Hill (1923). Above, the entrance front. Below, the ground-floor plan and garden lay-out.



Wilbraham House, London. By Oliver Hill (1923). Above, left, the staircase; and right, the hall. Below, a view in the long room.



*A house at Aldeburgh, Suffolk. By Oliver Hill (1923).
Above, the garden front. Below, the ground-floor plan.*

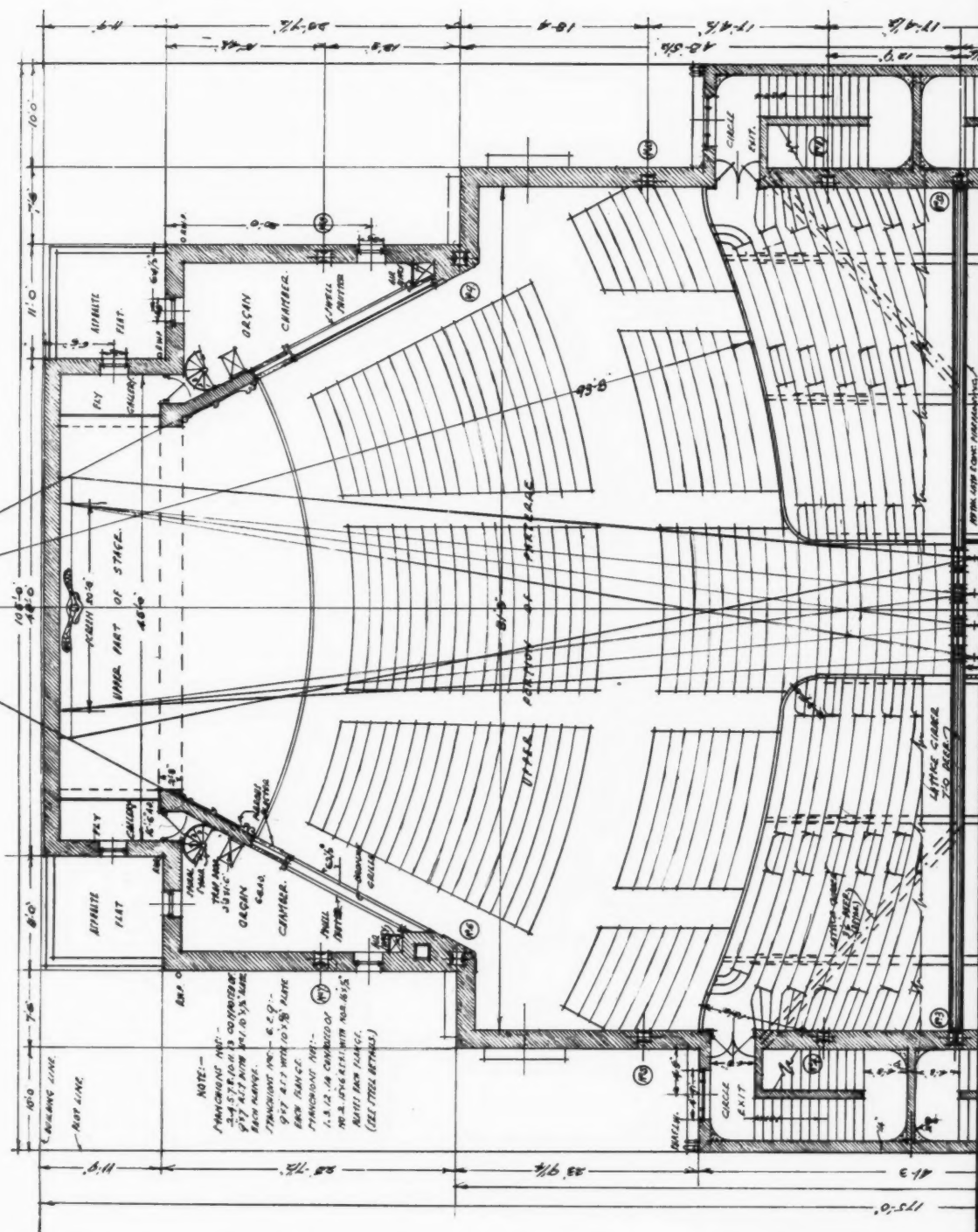


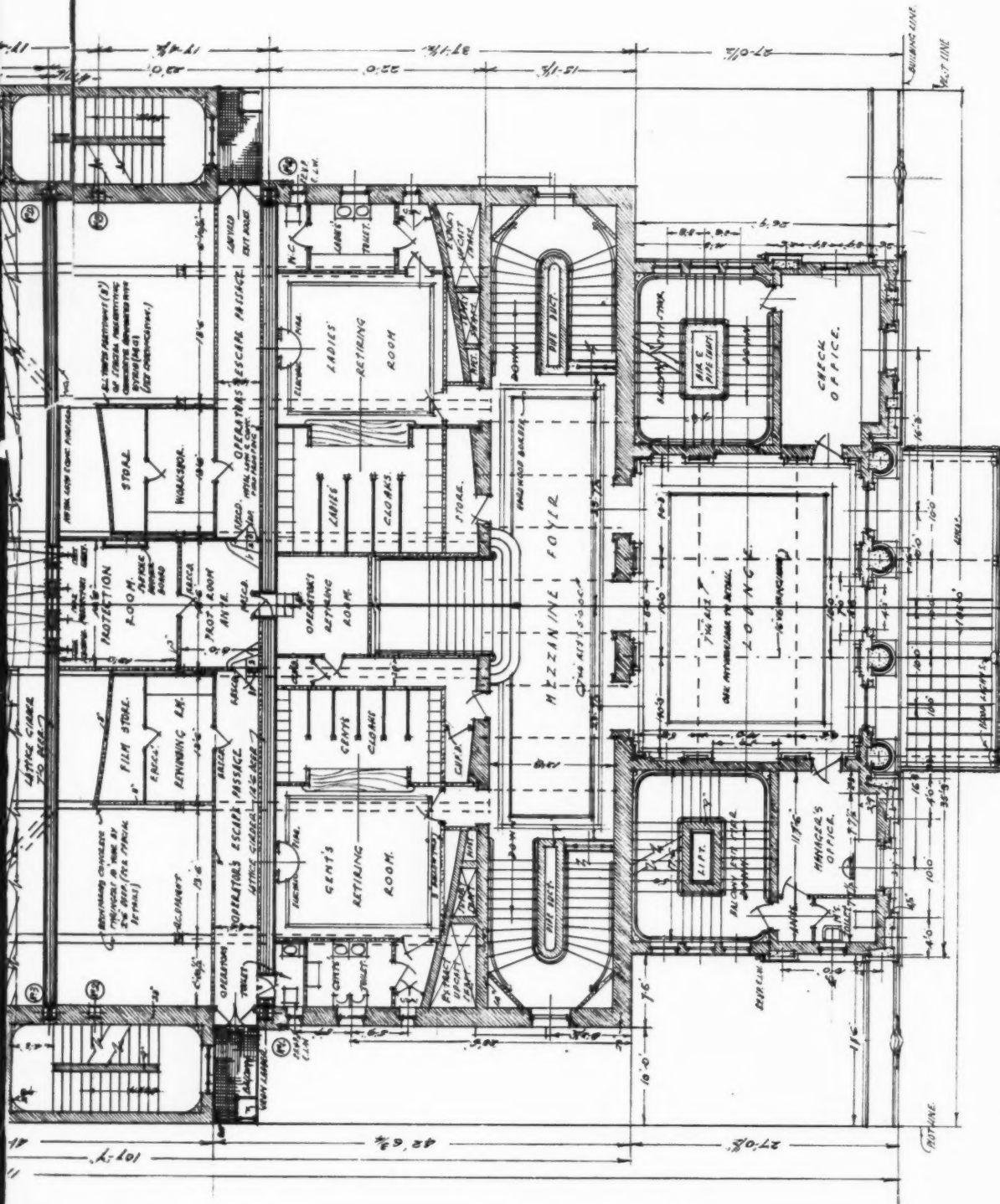
*A house at Aldeburgh, Suffolk. By Oliver Hill (1923).
Above, the garden front. Below, the ground-floor plan.*

COMMISSION N°

A CINEMA THEATRE

DRAWING No 2.





SCALE OF 1" = 8' FEET

SCALE: ONE INCH EQUALS EIGHT FEET.

SCHEDULE
OF
MATERIALS.

BRICK
STONE
HOLLOW TILE

CONCRETE
WOOD (ELEV.)
T.C.L.

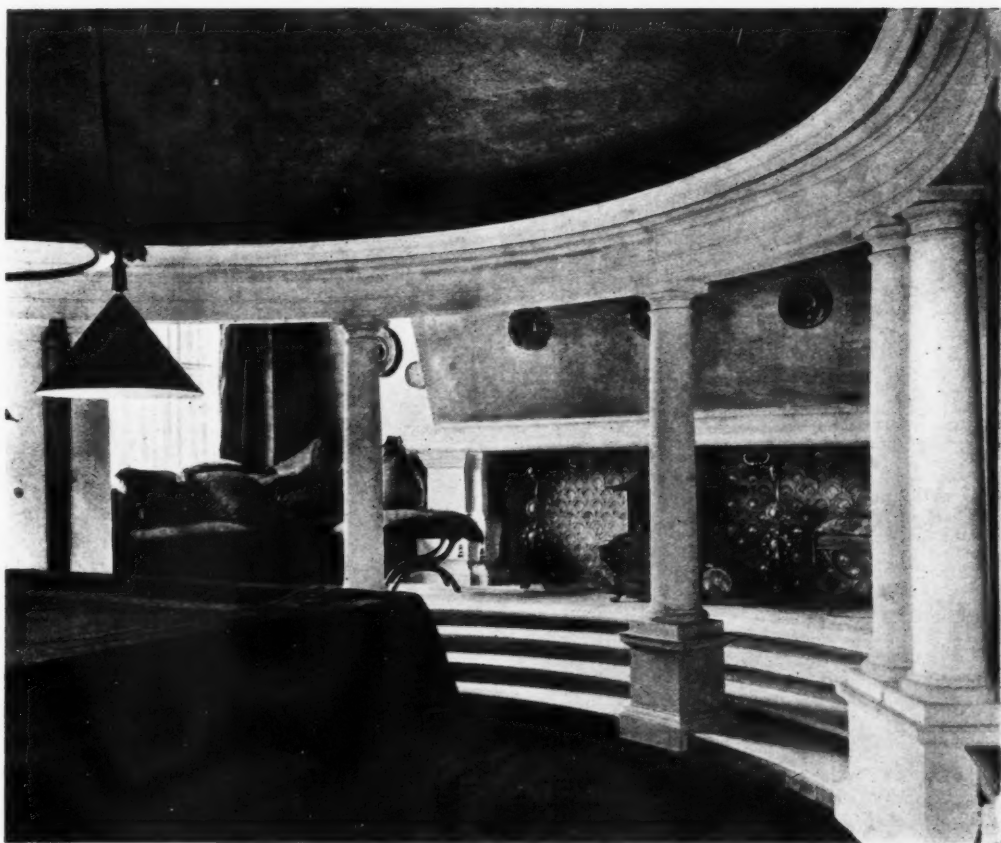
MEZZANINE FLOOR PLAN.

MADE BY
CHICAGO BY
DATE 11/22/20

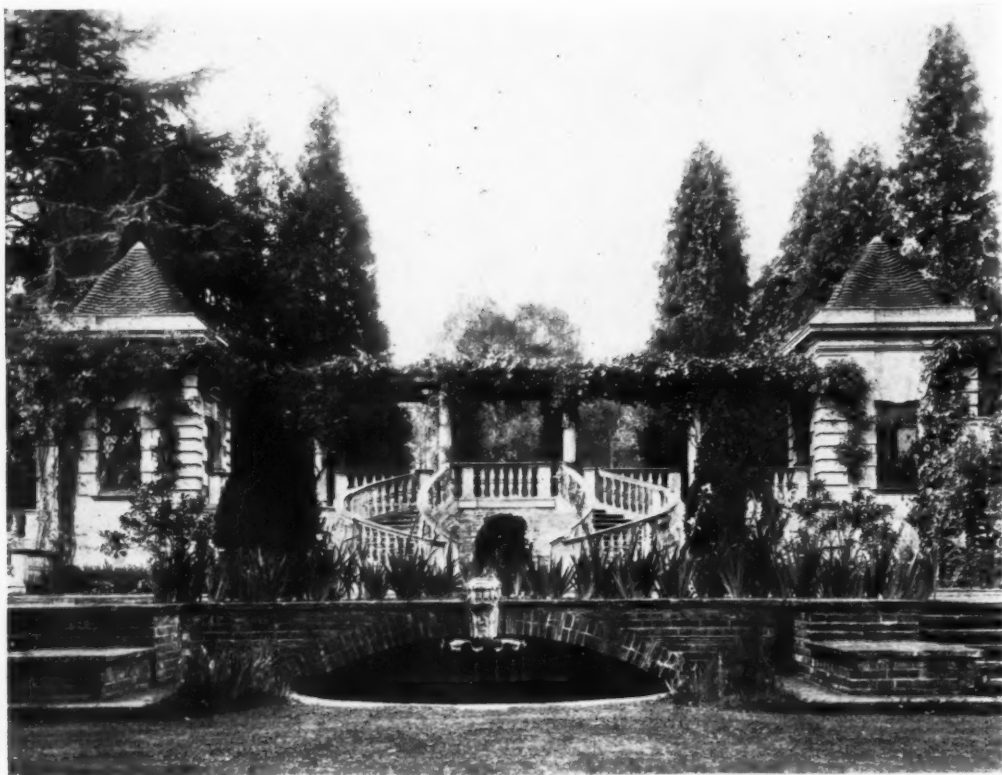
ARCHT. C. TODD.
SCHOOL OF ARCHITECTURE
UNIVERSITY OF LIVERPOOL.

A CINEMA THEATRE: THE WINNING DESIGN, HOLLAND AND HANNEN
AND CUBITT PRIZE FOR WORKING DRAWINGS, LIVERPOOL UNIVERSITY
SCHOOL OF ARCHITECTURE. BY A. C. TODD, FIFTH-YEAR STUDENT.

A CINEMA THEATRE: THE WINNING DESIGN, HOLLAND AND HANNEN
AND CUBITT PRIZE FOR WORKING DRAWINGS, LIVERPOOL UNIVERSITY
SCHOOL OF ARCHITECTURE. BY A. C. TODD, FIFTH-YEAR STUDENT.



Lyne Grove. By Oliver Hill (1920). Above, the dining-room. Below, the circular billiard-room. The dining-room silver furniture was also designed by Oliver Hill.



*Binfield. By
Oliver Hill.
Above, the garden
pergola. Below,
the gazebo.*

TRIBULATIONS OF EARLY PRACTICE

[BY KARSHISH]

IX: CONTRACT DOCUMENTS

IT has been said that the preparation of contract drawings and specifications calls for wariness. Let our architect then be wary. To so he is second nature to the experienced practitioner whose professional life is largely taken up in maintaining defensive outworks, as will be understood when we have the trowels ringing and the scaffolding going up. Such cares will first attend at our architect's office and accompany him home when the contract documents are being prepared. Law and custom and Conditions of Contract, however, have so well established forms of procedure that by a strict observance of these our architect may be relieved of fear that he is on dangerous ground. He must, however, make it a point of honour with himself, not blindly to follow, but to understand all formalities and stipulations as they come under his attention. There is a great deal of difference between such a knowledge of building contracts as will enable him to answer questions in examinations, and that kind of understanding of them which places him *au fait* with the practical facts when he is fairly immersed in them. Wariness is more particularly called for in the minutiae of contract drawings and specifications.

Our architect must first hold clearly in view not only his own responsibilities, but those also for which the builder is accountable. He may make as great difficulties for himself by relieving the builder of his just responsibilities as by overlooking his own. It is not the architect, but the contractor, who builds; and it is of great importance that the contractor should be kept fully alive to this circumstance and compelled to scheme and inquire into and foresee all contingencies. It is possible for an architect so to direct matters that the builder is encouraged to follow instructions blindly and mechanically, with resultant enervation of foreman and workpeople alike. The architect is, for instance, responsible for dimensions figured by him; therefore he should be chary of figuring any except the main, determinative dimensions. Let us imagine that there is a small break to mark the incidence of a gable on the elevation. The foreman, scrutinizing the plan, cannot see how the verge of the gable will engage with the eaves as indicated in the elevation or how the valley-tiles will work themselves out. "But," says he, "the harshitect has figured a 9 in. break. I ain't got no cause to worry, that's certain"; and he builds accordingly without understanding or taking part in what he does. Later on, the architect duly discovers that a 14 in. break is needed to complete the verge and eave as he intends, and he has to dodge matters, which is likely to be in an unworkmanlike and incompetent way. A large number of buildings are full of botched and makeshift contrivings which have arisen in this way. If, however, the break in question had not been figured, the foreman would have asked the question: "Break scales 9 in., but how is the verge and valley to finish as shown on elevations?" The architect, thus warned, directs the building of a 14 in. break, and all is well. No illustration will do justice to the importance of this active participation by the workpeople; or give the novice any conception of the diabolical imp that attends building operations to confuse the plainest issues and stultify the most careful forethought. For this reason our architect should form the habit of securing the co-operation of the builder by giving his directions in the form of restrictive safeguards rather than of positive orders. For instance, we will suppose that there is a contour-plan of the site which shows an ample fall for drains. Our architect wants to save extravagant digging. He makes a careful computation, and notes on the plan that the drain to disconnecting chamber is to be laid to a fall of 1 in 32, with the result that, owing to the trend of a number of small errors all in the same direction—due

to the activities of his ever-watchful, attendant imp—he finds, when he goes on to the site, that the lower end of the drain-trench is over 6 ft. deep. If our architect had been wary he would have realized that various circumstances might make his computation of the fall too great or too small; or, if experienced, a cautious habit would have served him to the same end. In either case he would have given some such directions as that the drain should have a fall of *not less* than 1 in 50; that the top of the collars should nowhere be *less* than 2 ft. below the ground, and that the depth of the invert of the disconnecting chamber should be *not more* than 3 ft. If these stipulations could all be observed, well and good; if they proved incompatible with one another all would still be well because the actual ascertained facts would be referred to the architect for his decision. The foreman has, we observe, been compelled to co-operate; it is *he* who is required to set out the drain, and the work benefits by his wide experience, trained forethought, and cognizance of the actual fact. It must be remembered that under different architects and in different circumstances the same work is done in very different ways, and a foreman, having a definite order to lay a drain to a certain fall and being thus relieved of any other responsibility than to obey the order, would be encouraged to shrug his shoulders and dig the vast trench feeling, perhaps, bored and vexed at engaging on work in which he could see no purpose.

The above passage is not to be taken to excuse the architect from preparing exact drawings. The principle observed is merely that two persons are not likely to make the same slip, and that two heads are better than one; and however complete a master of all details of his design the architect may be, it is the safe and right thing that the builder's people should provide an independent check. In order to gain this mastery it is well for the architect to rough out $\frac{1}{2}$ in. details directly the one-eighth plans and sections are knocked into shape, and then complete the small scale drawings in conformity with the larger. Such $\frac{1}{2}$ in. details provide an exact guide for the quantity surveyor; form the basis of working details to be later supplied, and keep the architect clearly aware of what work is exactly included in the contract. To be thus informed with a ready answer to all questions raised by the builder will give our architect that happy sense of power and authority of which he will stand so badly in need when he first goes on to the site and engages with practical men on practical issues.

The specification holds victories and catastrophes no less than the contract drawings. The architects of this world are divided into two classes—sheep and goats; namely, those who write their own specifications and those who get the quantity surveyor to do it for them—in which second group, it may be remarked, will be found most of those who, in the matter of design, have been described as "charlatans." Rightly regarded the specification is part of the design; and only those architects may justly be excused from drafting their specifications with their own hands who are, by long practice and wide experience, aboundingly competent to so draft them. Such men, who have accumulated a library of specifications recording the devices and dodges and precautions which belong to their individuality as architects, are to be considered as actually writing their own specifications when the document is drawn under their direction and supervision and completed by them with clauses applicable to the special case. Our architect, then, must at the outset write his own specifications; and write them out of his own head and not copy the often meaningless jargon which the slack conduct of ordinary building contracts has too well established. Our architect's specifications should be as individual as his voice. If he bears this in mind he will avoid those enervated forms of words which are as automatic as sneezes, and he will specially avoid ambiguities, repetitions, and contradictions. A specification should be written with the sense that its ultimate use may be to support the architect in arbitration or in a court of law; if it satisfies this requirement it has satisfied all other, and courts of law and arbitration will be thrust over the remote horizon, for the confusions and misunderstandings that lead to such disputes will scarcely arise. To so regard the matter is the architect's duty, not merely to himself and his client, but to the builder and all parties interested; he has a sacred trust

in sparing no pains to ensure that tribulation and loss will not be incurred by others as the result of want of conscientious care on his part.

It must be remembered that the contract particulars determining the obligations of all parties is primarily a structure to ward off bad weather rather than one for the enjoyment of fine. When a builder has made a mistake in his estimate, or misread a condition or, by some mishap, finds himself involved in loss—by failure, perhaps, to obtain a right-of-way he has relied on, or access to a convenient tip—or even if he is involved in financial difficulties unconnected with the contract, he may be tempted to build up a claim on any ambiguity or contradiction discoverable in the stipulations of the contract. The most disingenuous quibble may become, as it often has, a forcible argument in the mouths of lawyers, and carry conviction to a judge or arbitrator who is a stranger to the atmosphere of friendly understanding in which the tender was offered and accepted. It sometimes happens that such a flaw in a contract is the best asset of the creditors of a builder who has gone bankrupt, and such creditors usually pursue their own interests remorselessly. Our architect must also remember that however carefully his specification is drawn a number of points bearing on the just interpretation of its terms will certainly arise between him and the builder. It is the architect who, in the first instance, has to settle these questions; and as they usually bear directly on the cost of the work to the builder, it is difficult for the architect to decide that the more expensive work is covered by a description which is capable of interpretation in a sense favourable to the builder's interest. He should therefore see that the exact meaning he intends is expressed in precise terms, for in the event of a difference of opinion he has either to yield to the builder's view—which is humiliating and involves the interests of the client—or he has to decide that his words mean only what he intended them to mean, and endure the uneasy sense that he may have been unfair to the builder and that the builder considers himself ill-used. If many such questions arise the mutual esteem and confidence of builder and architect is seriously prejudiced.

There are only two particular things here to be said of specification writing. The first is that our architect will do well at the outset of his career to at once reduce the length of the document, make it easier of reference, and relieve himself of the struggle to cast into the form of self-respecting sentences the dreadful jargon sanctified to specifications, by eliminating the endless repetitions which make up the bulk of such writings, e.g. "Provide and fix," "In the best manner," "to be," "to have," "supply," "put," "fasten," "cover," "hang"—and all the rest. These phrases have no value except to throw what is nothing but a schedule of directions into a cumbersome literary form. It is only necessary to add somewhat to the clause of general definitions at the head of each trade to make it possible to draft the body of the specification in such form as the following:

"DORMER ACCESS TO ROOF.—1½ in. rebated D.H. casement; Hartley's ⅜ in. plate glass puttied and sprigged; 4 in. by 2 in. rebated frames; 7 in. by 3 in. weathered, throated, and check-throated oak sill; 1 in. fascia; 5 in. w.i. butts, No. 2, 9 in. japanned iron barrel bolts."

The second matter is the drafting of the preliminary clauses. In these the gravest dangers of misunderstanding lie, and the greatest care must be given both to the subject-matter of these clauses and to the wording of them. The first precaution our architect must take is to see that repetitions of what is laid down in the conditions of contract do not appear in the "preliminaries." The conditions of contract are as perfect as the best lawyers and all experience of building operations can make them. To repeat them verbatim in the preliminaries serves no purpose; to render their sense in other words is only to vitiate the contract, for the specification is equally a contract document with the conditions of contract. The preliminary clauses, then, must deal only with particular matters related to the special circumstances of the work, and they should be amplifications, and not emendations, of the conditions. For instance, the conditions require the builder to supply sheds for materials, shelter for his workpeople, and offices for his foreman. That provision should not be repeated in the

preliminary clauses; if necessary, the preliminaries may lay down that the contractor may make use of a certain barn, that a room in the house is available as a foreman's office, that sheds may be erected, or may not be erected, on certain parts of the site—and so forth. To make the position perfectly safe, the first clause of the preliminaries may read: "The builder is to provide for observing all the stipulations of the conditions of contract." For the rest, the preliminaries should lay down particulars of access, and generally set out all disabilities or conveniences incidental to the site, or other special circumstances bearing on the case; but our architect must be careful not to give any undertakings on behalf of his client or anyone else. Let us suppose that suitable gravel and sand are available on the site, and that there is an abundance of good water. The architect should *not* say: "The builder may use gravel and sand to be obtained from the pit," etc. "Water can be obtained from the spring at—," etc. He must, on the other hand, leave upon the builder the onus of finding suitable sand, gravel, and water. To this end he should use such words as the following: "The owner will allow the builder to take such sand and gravel as he requires for the works as may be suitable and in conformity with this specification from the pit, etc." "The builder may arrange to take what water he requires from the spring at—, but the owner does not guarantee that the supply will be adequate nor that the water will be clean or otherwise suitable for building operations." These illustrations are made to represent extreme cases so that the principle always to be followed may be clear. The builder will understand the purport of such cautious phrasing. The reason is apparent if we remember that a careless builder might, to save himself trouble, draw unsuitable sand and gravel from any pit in the country; and that the purest spring may get fouled or blocked by clumsy and incompetent workmen. If either of these two things should happen, the architect's complaints might be met by the rejoinder of a mutinous, disgruntled builder: "I'm not supplying the water, am I? The owner is. If he minds it a bit dirty it's his business to arrange so that I can draw it clean." "The contract doesn't say I'm to go out of my way and incur special expense in getting just the sort of gravel and sand you fancy. I'm getting it where the contract says I'm to get it, aren't I?" The point is not that the builder's is a fair or even an honest attitude, but that he may adopt that attitude. Such things are happening every day, and the matter of a dirty spring may get into Court, and lawyers may be fee'd in thousands of guineas to argue the bearing on the case of the famous decision in *Pidge v. Nibnose* given ninety years before, and fixing the responsibility of the owner of a cow for that cow's droppings in a spring enjoyed in common by the cow's owner and the residuary legatee of the cow's owner's tenant-at-law. The fact that this wild burlesque reads only like an abstract from this morning's *Times* should serve as a warning to our architect of the nature of that world in which he is preparing to take his chances. Here follows, however, an actual case. An architect drawing his preliminary clauses described with care and precision how the contractor was to provide for laying a temporary road for his own purposes from the site and across certain lands to the public road. The architect did not know the name of this road and considered he sufficiently identified it—since it was the only road accessible—as "the public road." The weather proved bad; the contractor was involved in loss by being mired up at his tip, where many thousands of yards of excavated clay had to be deposited; he was called upon to keep in repair the public road which was damaged by clay dropping on to it from his carts. He was losing money. It happened that this public road was, in one special sense, not a "public road"; it had not, in fact, been taken over by the rural authority, and was, therefore, technically, a private road. The contractor seized his chance of reimbursing his losses; claimed that this private road, up to the point where it joined the public highway, was part of the temporary road he was required to provide and maintain, and also claimed an extra for carting over this additional length of "temporary road." The matter went to arbitration, the contractor got an award, and the architect's attendant imp scored 1.

[To be continued]

BUILDING AND DECORATIVE TIMBERS

[BY G. A. T. MIDDLETON]

ii: EUROPEAN TIMBERS

In this and the following articles it is intended to follow a geographical classification, and to consider first the timbers which are indigenous to this country and to other parts of the European continent—that is, timbers of the district from which our whole supply was drawn up to a comparatively recent period. Although this supply is to a large extent temporarily stopped, it is by no means exhausted, and is capable of being revived. Steps to that end are being taken in almost every timber-bearing country.

Our oak, one of the finest hardwoods in the world, may be cited as an example. At one time, oak forests covered a considerable part of the country, as, for instance, the Weald of Kent and Sussex. The Weald is now cut up into small holdings, and the timber is found, at most, in woods of a few hundred acres, but more generally in private parks, hedgerows, and even in gardens. Thus the organization on the large and systematic scale—which alone is commercially profitable—of inspection, felling at the proper age, and transport, is out of the question. The paradoxical position thus arises that, though there is much mature oak in England of unsurpassable quality, it is quite possible for English oak to be specified, and for imported oak to be supplied. Oak grown in Normandy is practically identical with that of England, that from Holland, if smaller, has often a more varied grain; that from the Baltic and from Austria is generally excellent, but that from warmer climates is softer and weaker, especially if grown on loose soil. Even so, oak always ranks as a high-class timber, both for structural and decorative purposes, and has fairly close and distinct annual rings whose cell walls are particularly tough. The medullary rays are also distinct, compact, and tough, and of silky lustre, so that if the timber is cut so as to expose them the result is a grain of great beauty. Isolated trees, grown for decoration, have a tendency to branch somewhat near the ground, but forest trees grow tall and straight-trunked. The largest piece of straight, sound oak which the writer has measured, came from a Belgian forest, and held a section of 20 in. by 16 in. for a length of 42 ft.

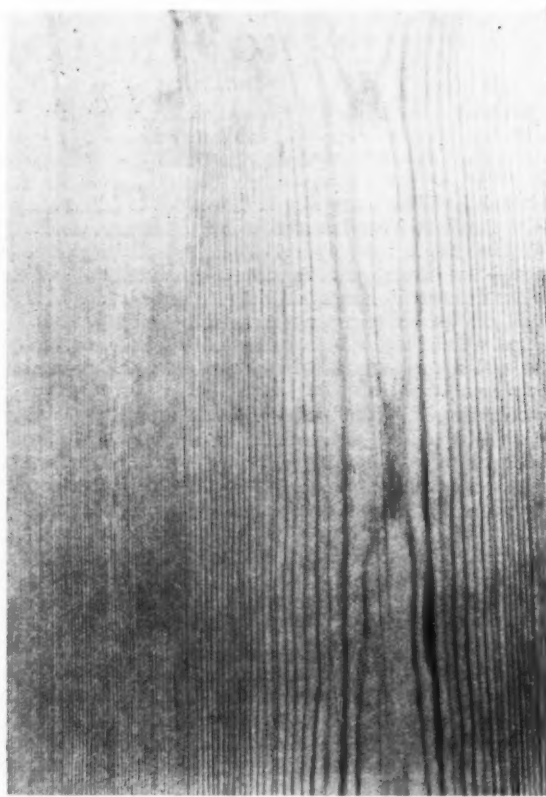
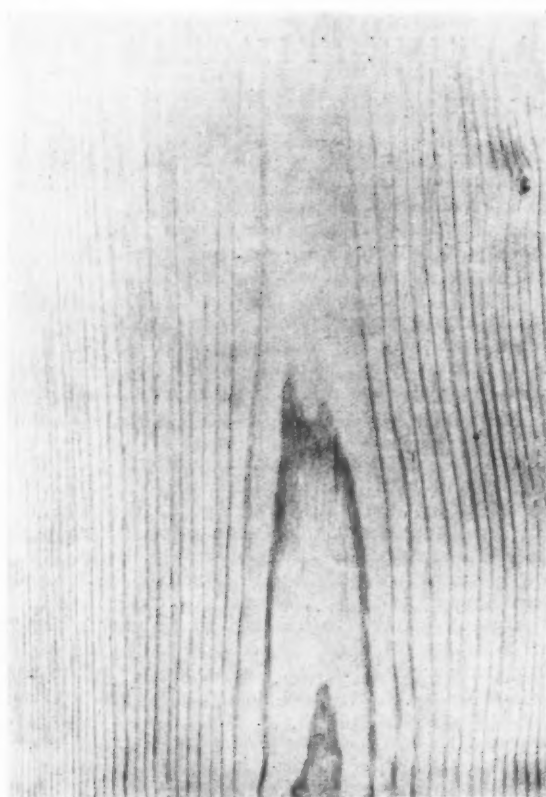
If it has been well seasoned—as must be postulated with all timbers—oak is extremely strong and durable, either in air or water; and it also withstands wear, as in floors, excellently, and polishes well. As it ages it turns from its light nut-brown colour to silver-grey, and then to dark brown, and even to black. It also hardens as time goes on. If used as posts it is liable to rot just where it enters the ground, and, unfortunately, it contains gallic acid, which tends to destroy iron screws and fastenings. In roofs, etc., when it becomes old, it is liable to be attacked by the death-watch beetle, but this does not usually happen for some hundreds of years. Many a farmhouse is to be found in the Weald having perfectly sound oak timbers which were put in before the Battle of Crecy was fought.

Elm, after oak, should be our next most important indigenous hardwood, but as a matter of fact it is little employed for building. This is due possibly to the fact that it needs to be used within a year of felling, and is somewhat liable to warp and to the attack of the death-watch beetle. Elm is extremely durable if kept always wet or always dry, while its rich brown colour and handsome markings make it highly ornamental, as anyone can vouch for who has seen it in the wax-polished floors of French inns. The writer once surveyed a warehouse whose story-posts, beams, floors, and roofs were all of elm. It had been built during the Napoleonic Wars, about 1800 A.D., and was all in perfectly sound condition twenty years ago.

Chestnut (that is, the sweet or eating chestnut, and not the horse chestnut, which is valueless) is, perhaps, the only other European hardwood which has been employed at all largely for building purposes, but it has gone largely out of use now, except as a substitute for oak in split palings, for which it is admirably suited. Though somewhat similar in grain to oak it has not the same figure, the medullary rays being scarcely visible, and it is lighter in colour. Chestnut splits easily and lasts well—and it will hold iron nails where exposed to rain without discoloration. It might well be worth while to grow chestnut in suitable districts up to a size suitable for constructional use, instead of cutting it down when young for palings and hop-poles.



Left, Austrian oak. Right, English elm.



Birch and alder, both timbers of small growth, have come into use somewhat largely of late in the form of plywood, for which they are admirably fitted in every way. So far as the softwoods are concerned (and they are much more used than the hardwoods in ordinary building work, being lighter to handle and both cheaper and easier to work), that which has been almost exclusively used until comparatively recent years is the Scotch fir. Nowhere probably does it grow to greater perfection than in Scotland and the Eastern counties of England, but the supply, never very large, has temporarily become negligible. Although there have been, and, in fact, there still are, though in somewhat inaccessible places, huge forests in Germany, Scandinavia, Russia, and even Siberia, the demand both from this and other countries is so great that these forests are showing signs of exhaustion, except possibly in Sweden, where they are admirably managed, and from whence much good stuff is still obtained. The trees grow to a considerable, but not excessive, height, with a straight stem and no branches till near the top: consequently the timber is straight-grained, and the knots are few. The rings, too, are generally uniform and clearly marked, and the sapwood and heartwood are readily distinguished. It is a most useful timber for carpentry and joinery, though the quality

varies considerably according to the soil and climate in which it has been grown. Experience is necessary for selection of the best stuff for particular purposes.

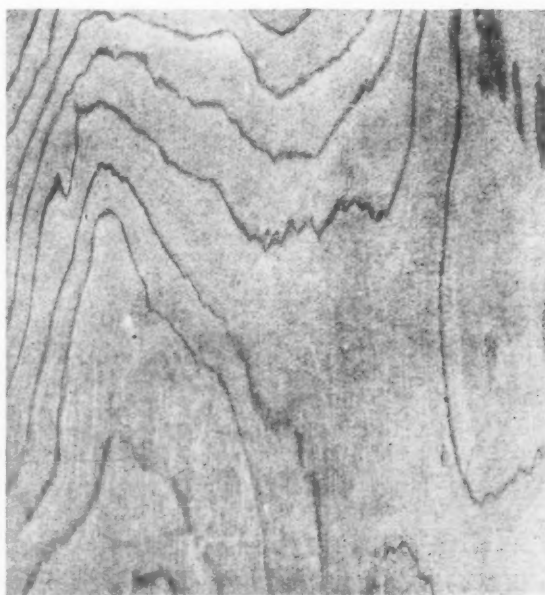
European spruce has also been used largely, especially for ordinary flooring and stairs. It is whiter in colour than Scotch fir, and has a satiny face; but it contains a good many hard knots,

so that in course of time it wears unevenly, especially in floors. The knots stand up above the general surface, which is soft. It has no great strength, and it is difficult to recognize the sapwood from the heartwood, but it has the advantage that it is easy to work.

Larch, used mainly for scaffold poles, is also a good timber. Much may be heard of larch in the future, for it is quick-growing and is being planted considerably where reforestry is being tried, but at present it is rare and small. It weighs only 34 lb. per cubic foot, yet it is twice as durable as spruce or Scotch fir, especially if these are immature, and it works easily and has a good lustre. Unfortunately, it is apt to shrink and to warp. The heartwood is reddish-brown and the sapwood yellowish-white.

For information contained in this article and for facilities for obtaining the accompanying illustrations, the author has to thank the officials of the Forestry Commission and of the Imperial Institute, and Messrs. J. and C. Bowyer, Ltd.

[To be continued]



*Above, left, Scotch fir (Swedish yellow).
Right, Scotch fir (Archangel flooring).
Below, European birch (plywood).*

THE COMPETITORS' CLUB

THE GENEVA PROGRAMME

THE programme for the League of Nations' Building at Geneva may be regarded as an ideal one from many points of view. To begin with, the site is of exceptional beauty; the well-timbered park sloping down to the lake, and, having as its outlook the snow-covered summit of Mont Blanc, provides a setting for a monumental building, the like of which it is rarely the good fortune of the architect to be offered. The introduction and summary of requirements depict in a vivid manner the ideas of the promoters as to the development of this fine site. The site has a frontage of over 400 yds. to the lake, and is bounded on the north by another park, which will, it is anticipated, ultimately pass into the possession of the League. Beyond this again is the new building accommodating the Labour bureau, so that there will be no difficulty in adequately providing for any future buildings that may be required if the scope of the League's activities is extended.

The object of the present competition is to secure designs for the main assembly hall, council rooms, and their dependencies, and for secretariat buildings. These two sections may be designed either as two separate blocks, with communications under cover, or as a single building. In the latter alternative, care would have to be exercised to preserve the secretariat from disturbance when large conferences are in session. Very detailed instructions are given as to the character of the accommodation required; and the areas of rooms are specified, but with such a degree of latitude as not to hamper unduly the competitor in producing a dignified design. For the secretariat group a unit of about 250 sq. ft. has been adopted, and all rooms are tabulated in terms of this unit. As one unit is the accepted area for the large majority of the offices, the competitor will be saved a vast amount of time in

reconciling a variety of dimensions and areas, such as is too often met with in competition conditions, where the schedules are drawn up by various departments without co-ordination, and where unnecessary difficulties are brought into the problem through the number of different dimensions laid down for rooms for similar purposes.

Throughout the conditions the clearness and thoroughness characteristic of continental programmes are maintained, and it is evident that the greatest pains will be taken to secure a good decision, even if the members of the jury were less distinguished than the following panel, which is, perhaps, almost without precedent in the number of men of ability which it includes. The adjudication is in the hands of: M. H. P. Berlage (the Hague); Sir John J. Burnet (London); M. Charles Gato (Madrid); M. Joseph Hoffmann (Vienna); M. Victor Horta (Brussels), president; M. Charles Lemaesquier (Paris); M. Karl Moser (Zurich); M. Attilio Muggia (Bologna); M. Ivar Tengbom (Stockholm); while to provide for any of these falling out a list of substitute members representing the same nations is added. It will be seen that this jury, while embracing several schools of design, has on the whole a distinctly "modernist" rather than a "traditional" tendency, and British competitors will do well to bear this in mind.

As regards the details of the competition, metric measurements and scales are to be used, and all writing on the drawings is to be in French, so that the country of origin should not be disclosed. Reports may be written in English or French, but those submitted in English will be translated into French before being handed to the assessors. The advice may be tendered that it will be best for competitors to see to their own French translations, as despite the competence of the League staff of linguists, technical expressions sometimes get a little distorted in process of translation.



The Geneva Competition: An air view of the site.

At the same time it must be admitted that the English version of the programme is very sound idiomatically, and bears but few traces of the language in which it was written. The cost of the work, including the architect's fee at 5 per cent., is not to exceed the sum of 13,000,000 Swiss francs (about £520,000). The amount to be paid in premiums is £6,600, not a high proportion compared with other continental competitions, but higher than is usual in England.

Almost the only question open to adverse criticism is the amount of work involved in the preparation of estimates. Each competitor has to fill in a schedule of nineteen pages, which is practically an outline set of quantities. The prices are given on which the items are to be moneyed out, but the work of measuring up the design, even if only approximately, seems disproportionate to the requirements of a competition. With the knowledge of prices indicated in this detailed schedule there must surely be an equivalent knowledge of the general cost of building per cubic metre. In fact, this standard is recognized in several continental countries, and it would have been quite practicable to have compared the designs on this basis, making due allowance for differences in character without imposing on competitors an enormous quantity of work which must be in large measure futile.

SENECHAL

COMPETITION CALENDAR

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

September 30. Cenotaph for Liverpool. Assessor, Professor C. H. Reilly, O.B.E., M.A., F.R.I.B.A. Premiums, first, £200; second, £150, provided he is an ex-Service man; third, £100; fourth, £50. The author of the selected design will be paid a commission of 500 guineas, which will include the premium of £200 above-mentioned, and, in addition to preparing all the necessary working drawings and superintending the erection of the work, he will be required to superintend the erection of a full-size wood and plaster model of his design on the site. Particulars from the Town Clerk.

October 30. New Offices for Scottish Legal Life Assurance Society, Bothwell Street, Glasgow. Assessor, Mr. John Keppie, A.R.S.A., F.R.I.B.A. Particulars from Mr. William Watson, Secretary, 84 Wilson Street, Glasgow, before August 21. Deposit £1 1s.

No date. Conference Hall, for League of Nations, Geneva. 100,000 Swiss francs to be divided among architects submitting best plans. Sir John Burnet, R.A., British representative on jury of assessors.

The conditions of the following competitions have not as yet been brought to the notice of the R.I.B.A.

No date. Incorporated Architects in Scotland: (1) Rowand Anderson Medal and £100; City Art Gallery and Museum; (2) Rutland Prize (£50) for Study of Materials and Construction; (3) Prize (£10 to £15) for 3rd year Students in Scotland; (4) Maintenance Scholarship, £50 per annum for 3 years. Particulars from Secretary of the Incorporation, 15 Rutland Square, Edinburgh.

No date. Town Hall Extension and Public Library Building for the City of Manchester. Preliminary competition open to architects of British Nationality. Particulars from Mr. P. M. Heath, Town Clerk. Deposit £1 1s.

January 3, 1927. Academy, Perth. Open to Architects practising in Scotland. Assessor, Mr. James D. Cairns. Premiums: £100 and £50. Particulars from Mr. R. Martin Bates, Education Offices, Perth. Deposit £1 1s.

COMPETITION NEWS

Manchester Town Hall

In connection with the extension of the Manchester Town Hall, new municipal offices, and new public reference library, the proposal is that these buildings shall be erected on the site adjoining the town hall, bounded by Lloyd Street, Mount Street, Peter Street, and St. Peter's Square. The Corporation have appointed as assessors Mr. T. R. Milburn (Sunderland), Mr. Robert Atkinson (London), and Mr. Ralph Knott (London). These will select six from the designs first submitted. These first designs must be in by January 8 next, and the six selected competitors will then be asked to submit final designs by a date not yet stated. Any questions by competitors must be sent to the Town Clerk of Manchester on or before October 2 next.

CORRESPONDENCE

TRIBULATIONS OF ARCHITECTURAL PRACTICE

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—Epicurus puts all human affairs into two categories: those we can control, and those we cannot. The preparation for a client would appear to be in the first category, the advent of one in the second. If, as his humble follower, I may put his question: "Where then shall we place the Good?"—and follow it with his answer: "In those things that are under our control," "Ponderivo" and "Karshish," whom I no doubt equally misrepresent, but whose names leave me dumb with envy, may perhaps reach an agreement which I will leave them to express.

HARRY BARNES

THE MURKY MASONRY OF MANCHESTER

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—I venture to think "Astragal's" views respecting the use of Portland stone in Manchester would be somewhat modified if he were to watch a typical autumnal sunset flooding the mellowed masonry of such buildings as the G.P.O. with an iridescent glow of gold and crimson light. All the tawdry brilliance of painted plasterwork would be but a sorry substitute for Old Sol's magic touch upon the stained and weathered stone of Cottonopolis.

EDWARD R. BILL

THE R.I.B.A. AND OTHER SOCIETIES

To the Editor of THE ARCHITECTS' JOURNAL

SIR,—One reads with some interest the statements in the letter of Mr. E. Guy Dawber published in your issue for August 11, but remembering, as many will, the split in the ranks of the R.I.B.A., which led to the formation of the Society of Architects, it must be borne in mind that the same arguments as are now being advanced against the Incorporated Association of Architects and Surveyors were then put forward. On that occasion it was stated by the R.I.B.A. that the Society of Architects would last but a year or so, that it was useless and superfluous, and other adverse comments were passed. Obviously this forecast was inaccurate.

I note that in the fourth paragraph of his letter Mr. Dawber states that "No Registration Bill which in any way threatens the interest of the unattached architects who are in bona-fide practice could possibly become law." It would, however, be interesting to know what body other than my Association would safeguard the interests of the "unattached" qualified practitioners and their assistants. Incidentally, it is noticed that the Birmingham Architectural Association, which is allied to the R.I.B.A., is advertising periodically in a local newspaper (not a professional organ) that the Registration Bill about to be presented to Parliament will protect even unqualified practitioners, provided they belong to the R.I.B.A. or any Society allied with that body. One is led to presume from this announcement that those who are promoting the Bill have admitted unqualified practitioners to their bodies, and that such persons will be "registered" with the "hall-mark" of the R.I.B.A. and its allies.

On the other hand, it has always been the policy of my Association to admit as members only bona-fide practitioners and their assistants, and to oppose the registration of those not possessing adequate technical knowledge as opposed to the competency of individuals to pass an examination purely academic necessitating what is commonly termed "cramming." That the system of examination adopted by some professional bodies tends to rapid, superficial and evanescent acquisition of knowledge is an admittedly serious defect which this Association hopes to remedy by inaugurating a policy of graduated tests based on a progressive and practical syllabus, which students will be able to assimilate thoroughly while serving their pupilage.

While well-known institutions have been of assistance to the

respective sections of professional men to which they addressed themselves, it was felt that architects, surveyors, and quantity surveyors, whether in public or private practice, would be benefited by the formation of a joint association.

The science of modern building construction is now developing rapidly, and its ramifications are becoming so numerous and intricate as to necessitate the closest co-operation between the various technicians involved. It is one of the aims of my Association to bring these together, not only to promote the growth of architectural art and the development of building science, but to help its members to solve the many problems with which they may be confronted in their practice.

The increasing membership recruited not only amongst unattached professional men, but also from the ranks of influential members of the older institutions, tends to show that this Association is fulfilling a useful object, even in the first year of its existence. Further, this Association alone possesses the advantage of architects, surveyors, quantity surveyors and assessors meeting round a common council table to discuss the various problems from all angles, thereby moulding a policy for the common good of the public they serve.

W. FORBES CAMPBELL.

President,

The Incorporated Association of Architects and Surveyors.

NEW INVENTIONS

[The following particulars of new inventions are specially compiled for THE ARCHITECTS' JOURNAL, by permission of the Controller of H.M. Stationery Office, by our own patent expert. All inquiries concerning 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, W.C.2. The price is 1s. each.]

LATEST PATENT APPLICATIONS

19906.—Anderson and Son, Ltd., D.—Lathing for building construction. August 12.

19897.—Olsen, E. H.—Building constructions. August 12.

SPECIFICATIONS PUBLISHED

256291.—Davis, J. H.—Openwork metallic flooring, partition work, or like structural metalwork, and the manufacture thereof.

233716.—Fritz, H., Kleinhenz, A., and Kleinhenz, E.—Hollow walls.

256455.—Eiggert, W. H. Slater—Architectural Building Models.

ABSTRACTS PUBLISHED

253602.—Frobisher, C., 19 Market Place, and Kilshaw, E. A., 36 Derby Street, both in Prescott, Lancs.—Building and paving blocks.

CARDIFF TECHNICAL COLLEGE

At the Technical College, Cardiff, ten scholarships covering tuition fees and maintenance grants of £40 per annum for three years are offered for competition annually. Candidates for entry to the department of architecture and civic design are eligible to compete. The scholarship examination is a competitive one, and is of about the same standard as matriculation. The department has now been at work for rather more than six years under the charge of Mr. W. S. Purchon, M.A., A.R.I.B.A., the lecturer in architecture being Mr. R. H. Winder, M.A., A.R.I.B.A., and the assistant lecturer Mr. Lewis John, M.A., A.R.I.B.A. The following local architects assist in the work of the advanced course as honorary lecturers: Messrs. Percy Thomas, F.R.I.B.A.; Ivor Jones, A.R.I.B.A.; T. Alwyn Lloyd, F.R.I.B.A.; H. Teather, F.R.I.B.A.; A. L. Thomas, F.S.I.; C. S. Thomas, F.R.I.B.A.; and J. H. Jones, F.R.I.B.A. The school of architecture is "recognized" by the R.I.B.A.

MR. OLIVER HILL

Following are the names of the contractors and some of the sub-contractors for the buildings designed by Mr. Oliver Hill and illustrated on pages 263 to 274.

Croyde, North Devon. General contractor, T. C. Webb, of Beaulieu. Sub-contractors: Thos. Rodd, thatching; Bell Grate Co., stoves; R. E. Pearce, casements.

The reconstruction of the Grand Hotel, Harrogate. General contractors, Braithwaite & Co. Sub-contractors: Bagues, Ltd., electric fittings.

House in Argyllshire, N.B. General contractors, Sir Robert McAlpine and Sons.

Aldeburgh, Suffolk. General contractor, W. C. Reade, Aldeburgh. Sub-contractors, Bell Grate Co., stoves; Birmingham Guild, Ltd., door furniture.

Lyne Grove, Virginia Water. General contractor, Arthur Vigor, Ltd. Sub-contractors: Broadbent and Son, marble and marble carving. The fountain in Dia Re is by Gilbert Bayes.

Wilbraham House, London, S.W. General contractors, W. H. Gaze and Sons, Ltd. Sub-contractors: S. E. Collier, Reading, bricks; Ham Hill and Doulting Stone Co., stone; Ames and Finnis, tiles; Jackson and Boyce, electric wiring; R. E. Pearce, casements; Fenning & Co., and H. T. Jenkins and Son, marble.

Binfield. The work was done by estate labour. Sub-contractors: Daneshill, bricks; Binfield Brick and Tile Co., tiles.

15 Hill Street, Mayfair. General contractors, J. Simpson and Son, Ltd. Sub-contractors, Jenkins and Son, Broadbent and Son, marble.

Venice Yard House and Gayfere House, Smith Square, Westminster. General contractors, Holliday and Greenwood. Sub-contractors: S. E. Collier, bricks and tiles; Bell Grate Co., grates; Comyn Ching & Co., door furniture; R. E. Pearce & Co., casements; Fenning & Co., and Jenkins and Son, marble.

OBITUARY

Mr. Walter H. Brierley

It is with deep regret that we have to record the death, at Hove, of Mr. Walter Henry Brierley, F.S.A., F.R.I.B.A., who was senior partner in the well-known firm of architects, Messrs. Brierley and Rutherford, of Lendal, York. Mr. Brierley was aged sixty-four at the time of his death. Among the important appointments he held was that of architect to the North Riding County Council from 1901 to 1923, and that of York Diocesan Surveyor from 1908 to 1921.

Mr. Brierley was first articled to his father, and later became an assistant architect at Warrington and Liverpool, afterwards joining the late Mr. Demaine in the business which had been founded by the famous Yorkshire architect, Carr.

Amongst the architectural works for which he and his firm were responsible were Welburn Hall, Kirbymoorside; Thorp Underwood Hall, York; Hollins Hill, Accrington; County Hall, Northallerton; North Cliff, Filey; Normanby Park, Lincs.; Grimston Court, York; Hackness Hall, Sledmere Hall, Sion Hill, Thirsk; Ivories, Cowfold, Sussex; and the additions to Jervaulx Abbey. A number of churches were designed by him, including St. Chad's, York, which is not yet completed; St. Philip's, Buckingham Palace Road; St. Thomas's, Kensal Town; St. Peter's, Newton-le-Willows; St. Luke's, York; and also churches at Goathland, Glass Houghton, Ulleskelf, etc. He also designed bank premises at Doncaster, Sheffield, Newcastle, Sunderland, Rotherham, Bridlington, York, and other places, and he was responsible for additions at the race-courses at York, Newmarket, and Gosforth Park. The competitions in which his designs were successful included the County Hall, Northallerton; York Elementary School, and St. Thomas's Church, Kensal Town.

Mr. Brierley took the keenest interest in archaeology, and was one of the leading archaeologists in Yorkshire. He was a member of the Roman Antiquities Committee of the Yorkshire Archaeological Society, and a Fellow of the Society of Antiquaries, besides belonging to many other local societies.

LAW REPORTS

RESTORING AN OLD BUILDING AND
ERECTING A MANSION*Moffat v. Williams. Vacation Court. Before
Mr. Justice Fraser*

This was a motion by the plaintiff, trading as James Moffat and Sons, builders, of Birmingham, against Mr. Romer Williams, of Daventry, seeking an injunction against him to restrain him from selling or parting with the possession of certain premises at Lower Farm, Besford, Worcester.

Mr. Hurst, K.C., for the plaintiff, said in 1925 Captain Charles Romer Williams, a son of the defendant, was in occupation of the Lower Farm, an old and pretty structure, and he represented himself to be the owner of the farm. The real truth was that he went into occupation in 1922 as a yearly tenant under his father, the defendant. In September 1925, Captain Charles Romer Williams instructed a firm of architects, Messrs. Sandy and Norris, to prepare plans for the restoration of the Lower Farm house, and also plans for a country house on the estate. The plaintiff acted as the builder and contractor for the work, and always understood Captain Charles to be the owner. The architects issued certificates to the plaintiff from time to time for the work done. In March 1926, additional work was carried out, and by the June the house was finished. The amount certified by the architects as due to the builder was £4,550, and in addition to that the builder put in electric light, etc., bringing up the total sum due to him from Captain Charles to £4,929. Not a farthing had been paid to the plaintiff by Captain Charles. A bill had been dishonoured, and though Captain Charles had promised to execute a mortgage it was never executed, and in fact could not be. In July 1926, plaintiff's manager was told by the wife of Captain Charles that no further work was to be done as the property was not her husband's, but belonged to her father-in-law, the defendant. The contracts had then been completed. Captain Charles was subsequently made a bankrupt; and when the defendant was approached, he repudiated any liability in connection with the buildings ordered by his son. The defendant now threatened to sell the whole of the buildings, which had never been paid for, at any early date. He had put a reserve of £3,000 on the property—the sum which he gave for the property. To sell the property as proposed in September would be to jeopardize the plaintiff's security. Defendant had filed an affidavit in which he said until the writ was issued he never heard of the plaintiff and knew nothing about the agreement. Defendant did not, counsel pointed out, traverse the fact that he knew the buildings were being erected. Counsel submitted that defendant must be deemed to have known what was going on on his own land.

The architects had suggested that the property was worth £6,000.

Mr. Buckmaster, for the defendant, said the defendant let the property at £160 per annum to his son. No repairs to the Lower Farm house were ever mentioned to the defendant, and he had seen no repairs done. The son had a separate income. Defendant did not recognize the right of the plaintiff to restrain him from selling, in order to recoup himself the £3,000 he gave for the farm.

His lordship, in his judgment, said in his opinion he ought to make the order asked for by the motion. He was satisfied that justice required it. Defendant did not deal with the question of a forced sale in his affidavit. His lordship saw no necessity for the proposed sale in September. The plaintiff must be protected as far as possible. There would be a speedy trial of the action, and the injunction asked for would be granted until the trial.

BUILDING ESTATE: HOUSE PURCHASE
Newbury Park Estates, Ltd. v. Gillon. Chancery Division. Before Mr. Justice Lawrence

This was an action by the plaintiffs against Mrs. Sarah L. Gillon, for a declaration that an agreement made by her with the plaintiff company in October, 1925, to purchase, for £935, the premises, 84 Stainforth Road, Ilford, Essex, had been duly rescinded by notice in writing, and for possession of the premises and mesne profits.

Mr. Hart, for the plaintiff company, stated that his clients were the owners of a building estate at Ilford, and on October 14, 1925, they entered into the contract to sell to the defendant, the wife of Mr. Frank Stuart Gillon, the premises, 84 Stainforth Road, Ilford, for £935. Defendant paid £40 deposit under the contract, it being a condition that the balance of the deposit should be paid on completion, and that the plaintiffs should endeavour to arrange a mortgage for the balance of the purchase money. Negotiations took place for that purpose with the Halifax Equitable Building Society, but owing to the building society not being satisfied with the financial position of Mr. Gillon, who was to act as guarantor for his wife under the proposed mortgage, the advance fell through. Mrs. Gillon, who was endeavouring to negotiate another mortgage, was allowed to enter into possession of the premises on November 6, 1925. As completion did not take place on January 13 last, the plaintiffs gave her notice rescinding the contract and claiming possession of the premises. Every endeavour had been made by the plaintiffs to arrange a mortgage for the defendant, but without success.

Mr. Robert Peel, for the defendant, said the main defence was that the condition precedent for the rescission of the contract had not been complied with, it being a term of the contract that the plaintiffs should arrange a mortgage for a large part of the purchase money, and that the plaintiffs

had not done their duty in regard to the matter.

His lordship, in giving judgment, said the only question he had to decide was whether in the circumstances the annulment of the contract by the plaintiffs, the vendors, was a valid one, and whether they were entitled to get possession of the property. The evidence established that the plaintiffs were unable to arrange a mortgage for the defendant, and that being so, the notice annulling the contract, having regard to the terms of the contract, was an effective notice, and in those circumstances the plaintiffs were entitled to the declaration they claimed and for possession of the premises with mesne profits.

His lordship suspended the operation of the order for two months in order to give defendant an opportunity of completing if she so desired. Judgment was given for defendant on the counter-claim for the return of her deposit, with costs, the costs to be set off against plaintiffs' costs.

AN ARCHITECT'S FEES

A dispute between an architect and a client had a sequel at Torquay County Court last month, when Mr. Alfred Hill, architect and surveyor, Torquay, brought an action to recover £15 13s. in respect of fees from Mrs. Panthe Gregory, of Kingswear. Defendant disputed the claim on the ground that it related to extras which she had not sanctioned, and counter-claimed for £10 in respect of alleged negligence in allowing the builders to construct a casement window which opened over a thoroughfare under the jurisdiction of the Totnes Rural Council, which that authority called upon her to remove.

Mr. Hill told the judge that the work was in connection with an old house, and the contract price was £377, which was increased by extras to £471. He pointed out that the window regarding which defendant complained was not in his plan or specification.

The judge said defendant admitted that she agreed to pay Mr. Hill £20, whereas he had been paid only £10. The balance of his claim was made up by a charge of 6 per cent. on extras beyond the contract price of £377. His honour observed that one or two of the items in the list of extras could not be charged as such. In the usual way of business the builders no doubt inspected the house and agreed to do the work in the specification for a certain sum. If it turned out that any particular item involved more material or labour than the agreed price that was the builder's risk, and he could not charge the owner with it. The judge said it was difficult to know how much ought to come off the extras, but he assumed the total amount to be £90. In regard to the window he was bound to assume that defendant ordered it, and her counter-claim therefore failed. He gave judgment for plaintiff for £13 12s. on the claim, and also judgment for him on the counter-claim.

THE WEEK'S BUILDING NEWS

A School Clinic for Walthamstow

The Essex Council proposes to build a school clinic at Walthamstow.

A New Surrey Printing Works

Printing works are to be built at Kingswood Village, Surrey, at a cost of £60,000.

Improvements at Barking

The Barking Council has decided to clear the Parson's Row area at a cost of £40,000.

A Lancaster Housing Scheme

The Lancaster Rural District Council has decided to prepare a housing scheme.

Housing at Marton

Plans have been passed for the erection of 200 houses in the Marton area of Blackpool.

A Secondary School for Feltham

The Middlesex Education Committee proposes to build an elementary school at Feltham at a cost of £14,000.

Building at Kennington

Sixty-four tenement buildings are to be built on the White Hart site, Kennington Lane, at a cost of £23,320.

Richmond Flats for ex-Service Men

A number of flats for ex-Service men are to be built at Richmond by the British Legion.

A New Wing for Crosby Hall

A new wing is being added to Crosby Hall, Cheyne Walk, for the British Federation of University Women, at a cost of £50,000.

Housing Progress at Newton Abbot

The Ministry of Health has approved the Newton Abbot Urban District Council's scheme for the erection of fifty houses as a second instalment of the Broadlands housing scheme.

More Houses for Glasgow.

A scheme for the erection of 306 tenement houses in the Govanhill district, at a cost of £126,561, has been recommended for approval by the Housing Committee of the Glasgow Corporation.

Building Activity at Nelson

Unusual activity is being displayed at the present time by Nelson builders in the erection of private houses, more plans having been submitted to the Town Council for approval during the past month than has been the case for some time.

New Municipal Buildings for Paddington

The London County Council has sanctioned the borrowing by the Paddington Borough Council of money for the erection of a public hall, shops, offices, and a lending library on the "The Lodge" site, Portchester Road, Bayswater. The cost of the buildings will be £90,847.

More Houses at Welwyn Garden City.

The Welwyn Garden City Housing Committee has recommended that the Rural District Council should approve of the Welwyn Public Utility Society building a hundred houses at the Garden City.

Developments at Peterborough.

The Peterborough Rural District Council has approved plans for school extensions at Eye. Building is proceeding rapidly on the Northfields estate, where there is space for 675 houses in the Council's area.

A Street Alteration at Glasgow.

The Glasgow Corporation has been recommended to spend £25,000 on an improvement scheme at the east corner of Argyle Street and Union Street. It is understood that the scheme will enable Argyle Street, at Union Street, to be widened from its present width of fifty-three feet to sixty-two feet six inches.

Housing at Chichester

The Chichester Housing Committee has submitted a list of applications for the erection of a further seventeen houses. Layout plans prepared by the architect in connection with the Council's housing sites at West Stoke and West Wittering have been approved by the Committee.

Housing Developments at Morden

Building operations near the new Underground station at Morden have been in hand for some months past, and plans for over 500 buildings have been approved by the local Council for construction. Among the projects scheduled is an extensive housing estate scheme of the London County Council covering an area of over 800 acres.

Housing at Shoreham

In a report of the Housing Committee of the Shoreham Urban District Council it was stated that there were plans submitted for sixty-four houses on which subsidy and financial assistance were applied for, and also a further twenty-six houses on which financial assistance only was applied for, which, including loans and subsidies already advanced, represented a total commitment of £100,000.

Building Progress in Johannesburg

The extent of the building boom in Johannesburg during the last three years is reflected in the fact that no less than £7,500,000 has been spent on buildings during this period. It is estimated that the erection of private residences absorbed half this amount. The number of private dwellings erected was 3,638, while about 1,500 commercial and industrial buildings were put up.

Housing at Romsey

The General Purposes Committee reported that the Minister of Health has approved the extension of the Romsey Town Council's scheme for the assistance of building by private enterprise by means of a lump sum grant of £90 for a further twenty houses (making a total of forty). The Romsey Rural District Council has been advised to undertake a housing scheme for the benefit of the agricultural workers in the district.

Town Planning at Doncaster

A complete town-planning scheme has been prepared by the Doncaster Corporation, embodying, as far as practicable, the recommendations contained in the report of the Doncaster Regional Survey. Various parts of the borough are being scheduled for residential purposes, for public and industrial buildings, and for open spaces. Investigation shows that there is only room for 20,000 more people in Doncaster, and an extension of the borough boundaries is, therefore, felt to be inevitable. According to the plan which has been prepared, land is reserved for 4,000 more houses in the borough.

Wallsend School Building Programme

With a view to providing additional school accommodation the Wallsend Education Committee has decided to communicate with owners of land for suitable sites. In the suggested programme to be submitted to the Board of Education is the provision of a school to supersede the Stephenson School to accommodate 500 scholars, the provision of a central school for Willington Quay for about 350 scholars, and the erection of a central school at Wallsend for about 400 children. It is estimated that the elementary school and the central school at Willington Quay will cost £38,000, and the central school at Wallsend will cost £17,000.

Building Progress at Mansfield

Building activity is progressing very favourably in Mansfield. The Corporation last year obtained Parliamentary powers for carrying out improvements at an estimated cost of over a quarter of a million, and five years have been allowed for the acquirement of necessary property. Negotiations are already in progress for properties in Queen Street, Albert Street, and Nottingham Road. The Chesterfield Road improvement scheme is to be extended for another mile towards the town at a cost of about £12,000. A number of factories are also to be erected shortly, and there are proposals to build new municipal offices and an elementary school at Bull Farm. Steps are being taken as well for the enlargement of the hospital at a cost of £43,500.

I II

* Painters 1s. 7d.

PRICES CURRENT

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4½d. per hour; LABOURER, 1s. 4½d. per hour; NAVY, 1s. 4½d. per hour; TIMBERMAN, 1s. 6d. per hour; SCAFFOLDER, 1s. 5½d. per hour; WATCHMAN, 7s. 6d. per shift.

Broken brick or stone, 2 in., per yd.	£0 11 6
Thames ballast, per yd.	0 13 0
Pit gravel, per yd.	0 18 0
Pit sand, per yd.	0 14 6
Washed sand	0 15 6
Screened ballast or gravel, add 10 per cent. per yd.	
Clinker, breeze, etc., prices according to locality.	
Portland cement, per ton	£2 19 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 2 4

SPREAD and level, including wheeling, per yd. 0 2 4

PLANKING, per ft. sup. 0 0 5
DO. over 10 ft. deep, add for each 5 ft. depth 30 per cent.

HARDWARE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. £0 2 1
DO. 6 in. thick, per yd. sup. 0 2 10

PUDDLING, per yd. cube 1 10 0

CEMENT CONCRETE, 4-2-1, per yd. cube 2 3 0

DO. 6-2-1, per yd. cube 1 18 0

DO. in upper floors, add 15 per cent.

DO. in reinforced-concrete work, add 20 per cent.

DO. in underpinning, add 60 per cent.

LIAS LIME CONCRETE, per yd. cube £1 16 0

BREEZE CONCRETE, per yd. cube 1 7 0

DO. in lintols, etc., per ft. cube 0 1 6

DRAINER

LABOURER, 1s. 4½d. per hour; TIMBERMAN, 1s. 6d. per hour; BRICKLAYER, 1s. 9½d. per hour; PLUMBER, 1s. 9½d. per hour; WATCHMAN, 7s. 6d. per shift.

Stoneware pipes, tested quality, 4 in., per yd.	£0 1 3
DO. 6 in., per yd.	0 2 8
DO. 9 in., per yd.	0 3 6
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0 6 9
DO. 6 in., per yd.	0 9 2
Portland cement and sand, see "Excavator" above.	
Lead for caulking, per cut.	£2 5 6
Gaskin, per lb.	0 0 5½

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 9 0

DO. 6 in., per ft. 0 11 0

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

BRICKLAYER

BRICKLAYER, 1s. 9½d. per hour; LABOURER, 1s. 4½d. per hour; SCAFFOLDER, 1s. 5½d. per hour.

London stocks, per M.	£4 15 0
Flettons, per M.	2 18 0
Staffordshire blue, per M.	9 10 0
Firebricks, 2½ in., per M.	11 3 0
Glazed salt, white, and ivory stretchers, per M.	21 10 0
DO. headers, per M.	21 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 12 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.

FACINGS, FAIR, per ft. sup. extra £0 0 2

DO. Red Rubbers, gauged and set

in putty, per ft. extra 0 4 6

DO. salt, white or ivory glazed, per

ft. sup. extra 0 5 6

TUCK POINTING, per ft. sup. extra 0 0 10

WEATHER POINTING, per ft. sup. extra 0 0 3

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

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

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

Portland Stone:	
Whitbed, per ft. cube	£0 4 7
Basebed, per ft. cube	0 4 8
Bath stone, per ft. cube	0 3 9
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, 33½ per cent.

DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement,

per ft. sup. £0 0 6

RUBBED round nosing to do., per ft.

lin. 0 0 6

YORK STEPS, rubbed T. & R., ft. cub.

fixed 1 9 0

YORK SILLS, W. & T., ft. cub. fixed. 1 13 0

SLATER AND TILER

SLATER, 1s. 9½d. per hour; TILER, 1s. 9½d. per hour; SCAFFOLDER, 1s. 5½d. per hour; LABOURER 1s. 4½d. per hour.

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

Slates, 1st quality, per M:

Portmadoc Ladies £14 0 0

Countess 27 0 0

Duchess 32 0 0

Clyps, lead, per lb. 0 0 4

Clyps, copper, per lb. 0 0 2

Nails, compo, per cut. 1 6 0

Nails, copper, per lb. 0 1 10

Cement and sand, see "Excavator," etc., above.

Hand-made tiles, per M. £5 18 0

Machine-made tiles, per M. 5 8 0

Westmorland slates, large, per ton 9 0 0

DO. Peggies, per ton 7 5 0

SLATING, 3 in. gauge, 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

TILING, 4 in. gauge, every 4th course

nailed, in hand-made tiles, average

per square 5 6 0

DO., machine-made do., per square 4 17 0

Vertical TILING, including pointing, add 18s. 0d.

per square.

FIXING lead soakers, per dozen £0 0 10

STRIPPING old slates and stacking for

re-use, and clearing away surplus

and rubbish, per square 0 10 0

LABOUR only in laying slates, but in-

cluding nails, per square 1 0 0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

CARPENTER, 1s. 9½d. per hour; JOINER, 1s. 9½d. per hour; LABOURER, 1s. 4½d. 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. 31 0 0

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1 in., per sq. £1 5 0

DO. T. and G., 1 in., per sq. 1 5 0

Planed Boards, 1 in.×11 in., per std. 30 0 0

Wainscot oak, per ft. sup. of 1 in. 0 2 0

Mahogany, per ft. sup. of 1 in. 0 2 0

DO. Cuba, per ft. sup. of 1 in. 0 3 0

Teak, per ft. sup. of 1 in. 0 3 0

DO., ft. cube 0 15 0

FIR fixed in wall plates, lintels, sleepers,

etc., per ft. cube 0 5 9

DO. framed in floors, roofs, etc., per

ft. cube 0 6 3

DO., framed in trusses, etc., including

ironwork, per ft. cube 0 7 3

PITCH PINE, add 33½ 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., includ-

ing horsing and striking, per sq. 3 10 0

SLATE BATTENING, per sq. 0 18 6

PRICES CURRENT; continued.

CARPENTER AND JOINER; continued.

DEAL GUTTER BOARD, 1 in., on firing, per sq.	£3 5 0
MOULDED CASEMENTS, 1½ in., in 4 sqs., glazing beads and hung, per ft. sup.	0 3 0
DO., DO., 2 in., per ft. sup.	0 3 3
DEAL cased frames, oak sills, 2 in. d.h. sashes, brass-faced pulleys, etc., per ft. sup.	0 4 0
DOORS, 4 pan. sq. b.s., 2 in., per ft. sup.	0 3 6
DO., DO., DO., 1½ in., per ft. sup.	0 3 0
DO., DO., moulded b.s., 2 in., per ft. sup.	0 3 9
DO., DO., DO., 1½ in., per ft. sup.	0 3 3
If in oak multiply 3 times.	
If in mahogany multiply 3 times.	
If in teak multiply 3 times.	
WOOD BLOCK FLOORING, standard blocks, laid in mastic herringbone:	
Deal, 1 in., per yd. sup., average	0 10 0
DO., 1½ in., per yd. sup., average	0 12 0
DO., DO., 1½ in. maple blocks	0 15 0
STAIRCASE WORK, DEAL:	
1 in. riser, 1½ in. tread, fixed, per ft. sup.	0 3 6
2 in. deal strings, fixed, per ft. sup.	0 3 9

PLUMBER

PLUMBER, 1s. 9d. per hour; MATE OR LABOURER 1s. 4d. per hour.

Lead, milled sheet, per cwt.	£2 3 0
DO. drawn pipes, per cwt.	2 4 6
DO. soil pipe, per cwt.	2 6 6
DO. scrap, per cwt.	1 9 6
Copper sheet, per lb.	0 1 0
Solder, plumber's, per lb.	0 1 2
DO. fine, per lb.	0 1 5
Cast-iron pipes, etc.:	
L.C.C. soil, 3 in., per yd.	0 4 1
DO. 4 in., per yd.	0 5 0
R.W.F., 2½ in., per yd.	0 2 5
DO. 3 in., per yd.	0 2 5
DO. 4 in., per yd.	0 3 3
Gutter, 4 in. H.R., per yd.	0 1 5
DO. 4 in. O.G., per yd.	0 1 9

MILLED LEAD and labour in gutters, flashings, etc.

LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0 2 1
DO. ½ in., per ft.	0 2 5
DO. 1 in., per ft.	0 3 3
DO. 1½ in., per ft.	0 4 6

LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.

DO. 3 in., per ft.	0 7 0
DO. 4 in., per ft.	0 9 9
CAST-IRON R.W. PIPE, at 24 lb. per length, jointed in red lead, 2½ in., per ft.	0 2 5
DO. 3 in., per ft.	0 2 10
DO. 4 in., per ft.	0 3 3

CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.

DO. O.G., 4 in., per ft.	0 2 7
DO. O.G., 4 in., per ft.	0 2 10
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0 7 0
DO. 3 in., per ft.	0 6 0

Fixing only:

W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2 5 0
BATHS only, with all joints	1 18 0
LAVATORY BASINS only, with all joints, on brackets, each	1 10 0

PLASTERER

PLASTERER, 1s. 9d. per hour (plus allowances in London only); LABOURER, 1s. 4d. per hour.

Chalk lime, per ton	£2 11 0
Hair, per cwt.	0 18 0
Sand and cement see "Excavator," etc., above.	
Lime putty, per cwt.	£0 2 8
Hair mortar, per yd.	1 7 0
Fine stuff, per yd.	1 14 0
Sawn laths, per bd.	0 2 9
Keene's cement, per ton	5 15 0
Strapite, per ton	3 10 0
DO. fine, per ton	3 18 0
Plaster, per ton	3 0 0
DO. per ton	3 12 6
DO. fine, per ton	5 12 0

Thistle plaster, per ton	£3 9 0
Lath nails per lb.	0 0 4
LATHING with sawn laths, per yd.	0 1 7
METAL LATHING, per yd.	0 2 3
FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ½ in., per yd.	0 2 4
DO. vertical, per yd.	0 2 7
RENDER, on brickwork, 1 to 3, per yd.	0 2 7
RENDER in Portland and set in fine stuff, per yd.	0 3 3
RENDER, float, and set, trowelled, per yd.	0 2 9
RENDER and set in Strapite, 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 5
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.

Glass: 4 lbs in crates:	
Clear, 21 oz.	£0 0 6
DO. 26 oz.	0 0 7½
Cathedral white, per ft.	0 0 0½
Polished plate, British ½ in., up to 2 ft. sup.	0 2 0
DO. 3 ft. sup.	0 2 6
DO. 7 ft. sup.	0 3 6
DO. 25 ft. sup.	0 4 0
DO. 100 ft. sup.	0 4 6
Rough plate, ½ in.	0 0 6
DO. ½ in., per ft.	0 0 6½
Linseed oil putty, per cwt.	0 16 0

GLAZING in putty, clear sheet, 21 oz.	0 0 11
DO. 26 oz.	0 1 0
GLAZING in beads, 21 oz., per ft.	0 1 1
DO. 26 oz., per ft.	0 1 4
Small sizes slightly less (under 3 ft. sup.).	
Patent glazing in rough plate, normal span 1s. 6d. to 2s. per ft.	
LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. sup. and up	£0 3 6
Glazing only, polished plate, 6d. to 8d. per ft. according to size.	

DECORATOR

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

Genuine white lead, per cwt.	£3 11 0
Linseed oil, raw, per gall.	0 3 7
DO., boiled, per gall.	0 3 10
Turpentine, per gall.	0 6 2
Liquid driers, per gall.	0 9 6
Knottling, per gall.	1 4 0
Distemper, washable, in ordinary colours, per cwt., and up	2 0 0
Double size, per firkin	0 3 6
Pumice stone, per lb.	0 0 4
Single gold leaf (transferable), per book	0 1 11
Varnish copal, per gall. and up	0 18 0
DO., flat, per gall.	1 2 0
DO., paper, per gall.	1 0 0
French polish, per gall.	0 19 0
Ready mixed paints, per gall. and up	0 10 6

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
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

SMITH

SMITH weekly rate equals 1s. 9d. per hour MATE, do. 1s. 4d. per hour; ERECTOR, 1s. 9d. per hour; FITTER, 1s. 9d. per hour; LABOURER, 1s. 4d. per hour.

Mild steel in British standard sections, per ton	£12 10 0
Sheet steel:	
Flat sheets, black, per ton	19 0 0
DO., Galv., per ton	23 0 0
Corrugated sheets, Galv., per ton	23 0 0
Driving screws, Galv., per grs.	0 1 10
Washers, Galv., per grs.	0 1 1
Bolts and nuts, per cwt. and up	1 18 0

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

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.	0 0 6
DO., from 3d. to	
Plaster board, per yd. sup.	0 1 7
PLASTER BOARD, fixed as last, per yd. sup.	0 2 8
Asbestos sheeting, ½ 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, ½ in. punched per M. grey	17 0 0
DO., red	19 0 0

ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ½ in. thick, in plain colour, per yd. sup.

DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0 7 0
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

DO., in metal casement frames, per ft. sup.	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	
3 m/m alder, per ft. sup.	0 0 2½
4½ m/m amer. white, per ft. sup.	0 0 3½
½ m/m figured ash, per ft. sup.	0 0 5½
4½ m/m 3rd quality, composite birch, per ft. sup.	0 0 1½

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1 7
1 10
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RER.

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27
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