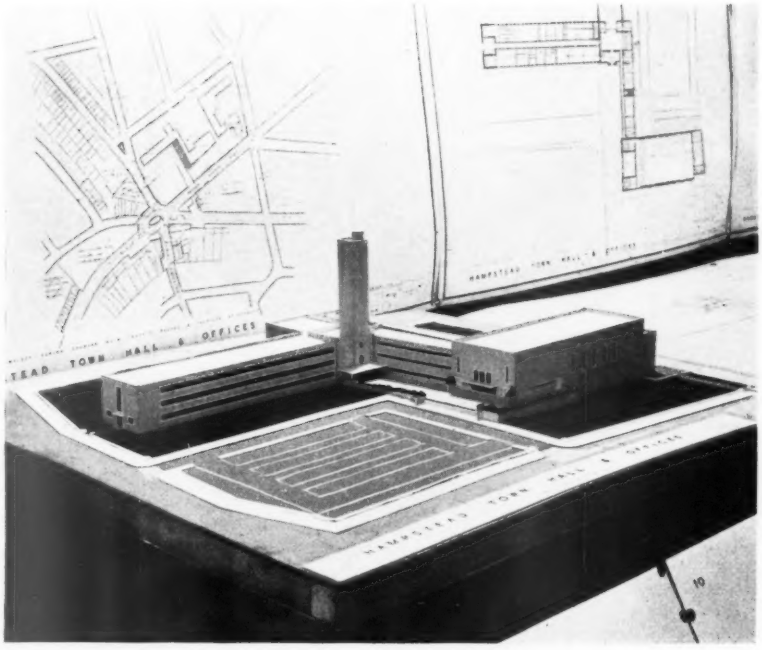
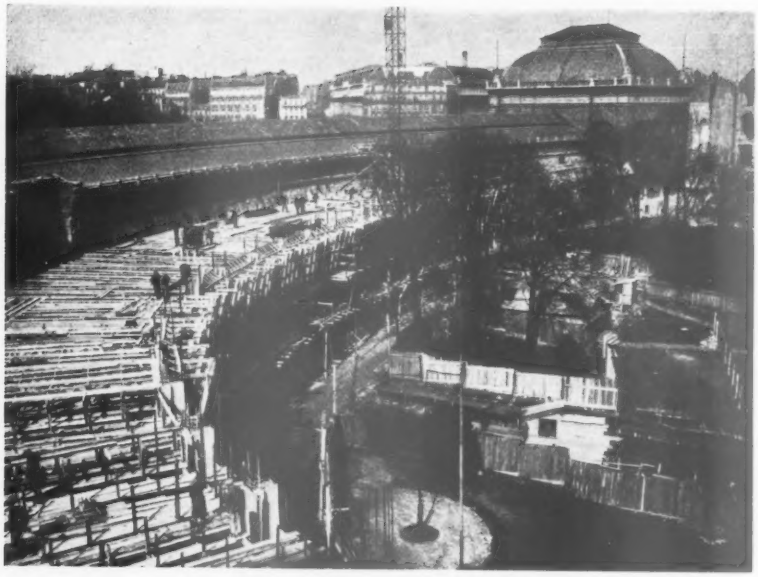
STUDENTS' WORK

A.A. SCHOOL OF ARCHITECTURE

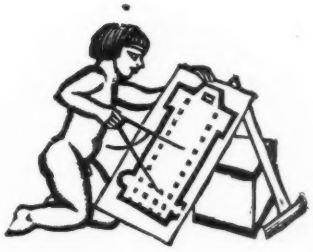


TWO models now on view at the exhibition of students' work of the Architectural Association School of Architecture: top, Hampstead Town Hall and Offices, by F. W. Cousins and D. F. Boyd; bottom, a block of flats, Chelsea Embankment, S.W., by Miss M. Trent. *See also page 156.*



PREPARATIONS FOR THE PARIS EXHIBITION

The upper photograph shows the large scale of the preparations being made for the Paris International Exhibition of 1937. In this view, taken from the Eiffel Tower, the old Trocadero is shown in process of demolition and the Pont d'Iéna being widened in order to make a grand approach to the Exhibition. On the left is a view of the new flanking galleries being built in front of the old buildings. These new wings will be retained as permanent museums.



KEEPING THE RULES

ON a later page of this issue there appears an announcement which was made by the Council of the R.I.B.A. after enquiry into the conditions and awards of a recent competition. This published report could not well be shorter, but it finds room for a most definite ruling on what is probably the most important of all questions to those architects who are interested in competitions.

The Council of the R.I.B.A., the highest authority on all matters concerning architectural competitions, states that it looks with grave disfavour upon any disregarding of Clause 6 of the Directions for Assessors, which reads :

> As the award will be final and binding upon all parties, and in order that it may afford no ground for legitimate criticism after publication, the assessor must not premiate any design, whatever its architectural merit, which contravenes any of the conditions and replies which he has drawn up.

No more definite statement can well be imagined; and in the spirit at least it is one supported by all those who enter for competitions. Everyone can remember occasions in which the letter of the law has been stretched. But after the first grimace, a few hours of bitter brooding, there has come to most competitors the realization that assessors are but human; and that a question and answer which, in the making, seemed of no importance whatever could later place those fallible beings in truly horrible dilemmas.

Clearly, such a measure of goodwill and tolerance must always be needed in the relations between the judges and the judged; and the harmonious record of the competition system has shown that competitors nearly always are ready to do their part. But it is equally clear that the R.I.B.A. must pointedly discourage assessors from trading upon the sporting instincts of those whose schemes they judge.

An element of chance must always be present in competitions; its constant presence, indeed, may form a great part of the attraction which competitions hold for nearly all architects. But it can go too far. When to the speculation of trying to prepare a scheme which the assessor will think the best is added the vaster speculations of whether the assessor will condone the breaking of rules and limitations considered desirable at the competition's inception, the whole system begins to look like a lucky dip.

The majority of competitors, and through them the R.I.B.A. Council, have decided that so engaging a lottery does not compensate for months of wasted time amongst the unfortunates who keep the rules. And so the Direction quoted has been embodied in assessors' instructions.

That statement condemns explicitly one method in which competitors' goodwill can be exploited. It does not cover another which has been far more common during the last three years : conditions and answers to questions which have been anything but well drawn up.

Unreasonable time limits have been imposed and subsequently extended; serious omissions from conditions have held up schemes till the answers to questions were received, or ruined them upon such a receipt; different answers have contradicted each other; in one case at least an answer of significance has been wholly unintelligible; and rigid conditions have been subsequently modified by broadly tolerant answers.

The difficulty of drawing up good conditions will be admitted by all architects, but the pressure of a busy practice and, perhaps, a stupid building committee should never tempt assessors to minimize the responsibility involved in drafting. Nor should some unnecessary questions (Are the stables for mounted police?—No, for horses) persuade them into treating other questions with flippancy.

The R.I.B.A. has emphasized the most important point in drafting competition conditions by reminding assessors that instructions should be minimized and suggestions used instead on all possible occasions. The following of this advice would greatly benefit the system.

Promoters' ideas as to what they want vary from a heartening vagueness to what is sometimes a most cramping exactitude, and nothing can remove from assessors the difficult decision as to what should, and what should not, be passed on to competitors. But even so a lot can be done by suggestion without the assessor committing himself to any one form of solution.

The size of the site and building lines, the amount to be expended, the accommodation to be substantially provided, and the principal aspect of the building—such are some of the few stipulations which may have to be definitely stated.

All other information to competitors might well be grouped separately and headed by a note that, whilst the observance of the various suggestions is very desirable, other solutions are not excluded.

Finally, both conditions and answers to questions should be carefully checked, even to the extent of having sketch schemes prepared during two or three days by an architect not entering for the competition, before being printed and issued. Far too many conditions during the last three years have shown a grave need of such a checking.

These alterations to existing procedure would not seem to place any impossible burden on assessors. There can be little doubt that they would prevent complaints in the future.

The Architects' Journal
Westminster, S.W.1
Telephones: Whitehall
9212-7
Telegrams
Buildable
Parl
London

NOTES & TOPICS

TEMPORARY AND PERMANENT

THERE is a growing indignation against jerry building. Last week I mentioned a scheme suggested by builders to guard themselves and the public against low standards—by the issue of certificates for approved work.

*

Tenants throughout the country appear to be putting new life into the old defence leagues, in an endeavour, by organized action, to find redress for what is very little better than blatant fraud on some newly developed estates.

*

Perhaps we can persuade some jerry builder to erect an estate of a standard even lower than he has yet imagined, an estate which will fall into ruin in five years (instead of the more usual twenty). Then public indignation will reach such heights that something will have to be done about it.

*

There is every good reason for temporary buildings, but—and this point should be clear—there is a deal of difference between a good temporary building designed as such, and a building of permanent pretensions whose ill-considered structure remains permanently temporary.

CARAVANS AGAIN

Perhaps, after all, now that we are to have Public Health Bill control over them, there is something to be said for the caravan as a temporary home.

*

Not merely as a holiday home, but as a home which can be lived in while "the happy couple" look around for their first permanent house, while they try out a district in which they think they may settle down, while they consider which side of the river will suit them best.

*

And then, in later life, when they build a country house for themselves, some enterprising estate agent might allow them to live for a week or so in a caravan on several alternative sites, so that the one most suited to their requirements might be chosen after test.

*

But caravans, or moving buildings, would require to be pretty strictly controlled in design—is there a more appalling thought than to see all the bungalows and shacks of some Paradise-Haven not only restless to the eye, but actually moving about the countryside, like a nightmare carnival in a disturbed ant-nest?

BETTER CORONATION STREETS

It really does seem as though we are going to get some design into the Coronation festivities at last, for the Westminster Council has appointed Mr. Grey Wornum to decorate the streets that are to be used for the procession, and it seems probable that one or two other streets will arrange for some unity of treatment.

*

At any rate, the Bond Street Association has already arranged a limited competition, and probably Regent Street and the Tottenham Court Road and any other streets where the shopkeepers all form an association will be doing the same sort of thing.

*

Most of the dailies seem to approve of Mr. Wornum, though William Hickey sniffs loudly; "What he produces may not be interesting, but it will be in thoroughly good taste . . . rather Swedish looking, with a touch of the post war Beaux Arts style."

NEW AND OLD

So the new Connell, Ward and Lucas concrete house is to take its place after all among the new Georgian houses which have been allowed for so long to be erected in Old Hampstead.

*

This very proper decision produced the interesting voting of 70 for and 33 against, so that the L.C.C. would appear to take a wider view of what is good and what is bad than the Hampstead Borough Council.

*

The Hampstead Council was proposing to ban a good design by reputable architects, just because concrete was used. It has approved scores of sham houses of pseudo-Georgian character, many without any design quality at all, just because they were in brick and tiles and white paint.

THE ADELPHI

The new Adelphi is to hold some 3,000 people instead of its normal 200. More, they will all be office workers, instead of residents, so will have to get to and from the site every day.

*

The Strand is congested and Charing Cross is congested. How is the new influx of people to be dealt with? It would seem that the Embankment is the only hope. Or is there going to be a pedestrian tube system linking the Adelphi with the adjoining station?

THE IMMORAL FLAT

"The gravest objection of all to flats is that they directly encourage immorality . . ." Thus Mr. B. S. Townroe,

A piece of carving recently completed for one of the new pinnacles shortly to be placed in position on York Minster.

quoting the opinions of some French experts who prefer cottage development on the grounds that " there are more opportunities for intrigue in flats with their many doors than on a housing estate where every door, back and front, is under the eyes of the neighbours."

*

So my holiday cottage must really be a frightful place, nobody within miles to look at front or back door, or even peer through my dining-room window. Maybe I shall survive these frightful temptations, for I see that " . . . British standards are far higher than those which prevail in Latin nations." But it's a relief to know that any lapse from virtue will be the fault of the L.C.C.

A.A. EXHIBITION

The annual exhibition of the A.A. School gives us a first opportunity of seeing work done under its recently developed " Unit System "—a system whereby each member of the staff is personally responsible for about 17 students for a period of three months.

*

The work exhibited seems to me to show that the majority of the students like the new system and that they enjoy working under it. There is a distinct sense of enjoyment to be seen in nearly all the important drawings shown.

*

The flexibility of such an arrangement seems admirable from the students' point of view (and that is the real interest). With each of the fifteen units in the School doing a definite job of work, there seems to me to be no reason why any student who needs special attention (either because he is well below or well above the average) should not move backwards and forwards in the units irrespective of their normal sequence from one to fifteen.

*

As Professor Goodhart-Rendel says in his introduction to the exhibition booklet, the system is at present experimental: but these initial results tend to prove the good judgment behind the idea, and, providing the system remains flexible enough to adapt itself to ever-changing conditions, it should give the students first rate opportunities.

REVOLUTIONARY BONFIRES

" Gaudi's cathedral is now a smoking ruin." " Barcelona cathedral, greatest work of the architect Gaudi, is the only sacred building to remain untouched." Reports from Spain demonstrate the usual unreliability of press gossip.

*

Looking through the list of buildings burned, bombed or about to be demolished by one side or the other, I was reminded of the American who was widely written up by the dailies not so very long ago ; he was coming over to " see Europe while it was still there." So far as I remember, his route, based on martial probabilities, put London last on the list : so there is presumably still time for Londoners to see it.

MORE GAMES

From the Press description of recent events at Bordon Hill, near Leicester, it is clear that quarrying is a sport which, when played under holiday conditions, has dirt-track racing and similar modern sports beaten to a frazzle.

*

According to the report the teams, of two men each, lined up with pneumatic drills before a selected granite face ; at a signal from the judge the contest started and for half an hour raged furiously. The teams, sweating prodigiously in what was described as the cauldron-like atmosphere of the quarry, were surrounded by thousands of men, women in gay dresses, and children, watching excitedly amongst the tremendous heat and noise and the clouds of dust issuing from the drills. This sport might make a very suitable addition to the Olympic games.

CANCEL THE CONTRACT

A client telephoned his architect the other day and said, " How much will it cost me to cancel the contract ? "

*

The architect, being young, said he didn't know, but would find out. And he found that, as the job had only just started, the builder was willing to accept 5 per cent. of the contract sum to cancel the week-old contract, the sum to merge into a further contract if the client decides on the new scheme which has suddenly become possible.

*

Which seems to me very fair and reasonable.

YOU SCRATCH MY BACK . . .

The present and the late Ministers of Health have been in Manchester. Sir Kingsley Wood has opened a new block of flats called Greenwood House, and on the same day Mr. Arthur Greenwood laid the foundation stone of Kingsley Wood House. ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

THE ARCHITECTS' DIARY

Thursday, July 30

ROYAL ACADEMY, *Burlington House, Piccadilly, W.1. Summer Exhibition. Until August 8.*

ROYAL SCOTTISH ACADEMY. *At Edinburgh. Until September 5.*

ARCHITECTURAL ASSOCIATION SCHOOL OF ARCHITECTURE, 36 *Bedford Square, W.C.1. Exhibition of Students' Work. Until July 31.*

R.I.B.A., 66 *Portland Place, W.1. Exhibition of drawings submitted in the competition between Students of French and British Schools. Until July 31. Also, August 1 and 5.*

Friday, July 31

LONDON SOCIETY. *Annual River Trip. Depart Westminster Pier at 6.30 p.m.*

Monday, August 10

R.I.B.A., 66 *Portland Place, W.1. Exhibition of the designs submitted in the recent competition for a new Parliament House, Salisbury, Southern Rhodesia. Until August 29 inclusive. (Monday to Friday between the hours of 10 a.m. and 5 p.m. and Saturday 10 a.m. to 1 p.m.)*

FIRE-RESISTING EMPIRE TIMBERS

The Imperial Institute Advisory Committee on Timbers has been informed by the L.C.C. that two more Empire timbers submitted to that body by the Committee have been approved as fire-resisting materials which can now be used as building components under conditions applicable to oak, teak, jarrah, karri and other hardwoods. The two are Douglas Fir from British Columbia and Keruing from Malaya.

Empire timbers previously approved by the L.C.C. at the suggestion of the Advisory Committee include African walnut, Crabwood, Andaman Padauk, Iroko, Mora, Andaman Pyinma, Queensland maple, Red Meranti, Pyinkado, Seccondee Mahogany and English ash.

Samples of the woods approved may be seen by those interested at the Imperial Institute, South Kensington, London, S.W.7, where information regarding them may also be obtained.

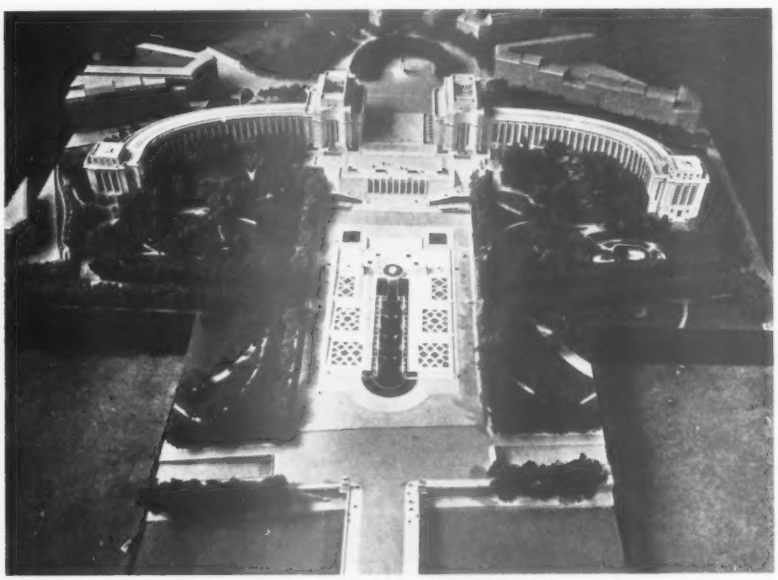
WATERLOO BRIDGE

The demolition of Waterloo Bridge has been partly suspended, and work at present is three weeks behind schedule. The Highways Committee of the London County Council reported, at a meeting of the Council on Tuesday last, that the demolition of piers five and six and pier number one had proceeded as far as was at present intended.

Temporary works are in hand for the demolition of pier seven, but pier three cannot be commenced until river traffic is diverted to the temporary dredged channel. The consent of the Minister of Transport has been sought to the closing of the temporary bridge to traffic for four days towards the end of October, for the raising of its north end, and again at the end of the year so that the south span may be slewed round to be clear of the work for the new bridge.

The Committee anticipates that the new bridge will be open to traffic at the end of 1939.

The Committee also asked the Council to approve, in connection with the Cromwell Road extension, an estimate of £1,377,000 in respect of the Cromwell Road extension so far as it falls within the County of London. The London and Middlesex (Improvements, etc.) Bill, in which powers to carry out this extension are sought, is expected to receive the Royal assent shortly. The gross cost of the portion of the work in London is estimated at £1,620,000, and the Minister of Transport has promised a 60 per cent. grant.



A view of a model of the new galleries for the 1937 Paris Exhibition, as seen from the Eiffel Tower.

THE CORONATION

The Westminster City Council last week, appointed Mr. G. Grey Wornum as the architect to be responsible for its Coronation decorations.

GOVERNMENT OFFICES IN WHITEHALL

The Crown Lands Bill, which provides for the vesting in the Office of Works of land in Whitehall on which it is proposed to erect new Government offices, was considered on Monday last by the House of Lords Committee on unopposed Bills.

Mr. C. E. C. Browne, Parliamentary Agent, said that when the plans and elevations had been definitely settled they would be submitted to both Houses of Parliament for information. The Bill was ordered to be reported to the House for third reading.

APPOINTMENTS

Mr. R. Bradbury, B.A., A.R.I.B.A., has been appointed Lecturer in Architecture at Armstrong College.

Dr. H. W. Howes has been appointed to the position of Principal of the Norwich Technical College.

THE HAMPSTEAD CASE

A design by Messrs. Connell, Ward and Lucas for a concrete house in Frognal, Hampstead, was severely criticized before being approved by the L.C.C. last week.

Objection was reported from the Hampstead Council on the ground that the house would injure the appearance of a district of a "quiet, Georgian character."

Mr. H. Berry, chairman of the Town Planning and Building Regulation Committee, said the part of the innovator was

always hard. While the building was not one he could admire or recommend, he did not see how the door could be shut on the younger generation. The building was not an outrage. It was of a different type, which would probably increase as time went on.

AN ARCHITECT'S WILL

Mr. Edgar Wood, A.R.I.B.A., of Monte Calvario, Porto Maurizio, Italy, former President of the Manchester Society of Architects, left estate in England of the value of £42,991 (n.p. £42,975).

COMPETITION NEWS

NEW BATHS FOR LEEDS

The Baths Committee of the Leeds City Council has approved the conditions of the competition to be held in connection with building of new baths on a site in New York Road, Leeds, at a cost of £130,000. Designs must be submitted by October 29. The assessor is Mr. Kenneth M. B. Cross, F.R.I.B.A., and premiums of £350, £200, and £100 are offered for designs placed first, second and third, respectively.

CIVIC CENTRE, NEWPORT

The Newport (Mon.) Corporation invites architects of British nationality to submit, in competition, designs for new civic buildings, which include a town hall, municipal offices, law courts and police station, to be erected at a cost (for building works) not exceeding £300,000. The assessors are Messrs. E. Berry Webber, A.R.I.B.A., and C. F. Ward, F.R.I.B.A.; and the following premiums are offered: £750, £500, £300 and £200. The last day for receiving designs is November 30. The last day for questions is September 1. The conditions are obtainable from Mr. O. Treharne Morgan, Town Clerk, Town Hall, Newport (Mon.). (Deposit £2 2s.)

BANNED COMPETITION

The following notice has been issued by the R.I.B.A.: "The Competitions Committee desires to call the attention of members to the fact that the Conditions of the Competition for a Design for the Reconstruction of the Main Entrance to Sutton Park, Sutton Coldfield, are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee is in negotiation with the promoters in the hope of securing an amendment. In the meantime, members should not take part in the competition."

SWIMMING BATH, WESTCLIFF

The result of the competition for a new swimming bath at the Westcliff High Schools for Boys and Girls was announced last week as follows:

Design placed first: Mr. Stanley Gasson, A.R.I.B.A., P.A.S.I., of 69 Leighcliff Road, Leigh-on-Sea.

Design placed second: Mr. L. S. Dyer, A.R.I.B.A., of 79 Brightwell Avenue, Westcliff-on-Sea.

Design placed third: Mr. A. Ayshford, L.R.I.B.A., of 112 The Broadway, Thorpe Bay.

The whole of the designs submitted are on exhibition at the Westcliff High School for Boys until July 31.

RECOLLECTIONS

UNITED STATES

1893—1920

BY FRANK LLOYD WRIGHT

This is the third of the series of recollections by Mr. Frank Lloyd Wright of the state of architectural development in the U.S.A. at the end of the nineteenth century, and of the influences and observations which brought about his efforts to introduce a more rational approach to architectural design.

HAD steel, concrete and glass existed in the ancient order we could have had nothing like our ponderous, senseless "classic" architecture. No, nothing. Such betrayal of new life and new opportunities as ours would have been impossible to the ancients—the Greeks excepted—and we should have had a practice of architecture by the eclectic wherein tradition was not a parasite or an enemy, but a friend because the ancestors would have done the work for us that we seem unable to do for ourselves. We would then have been able to copy the antique with sense and safety.

HARMONY

Now there can be no organic architecture where the nature of synthetic materials, or the nature of nature-materials either, is ignored or misunderstood. How can there be? Perfect correlation — integration— is life. It is the first principle of any growth that the thing grown be no mere aggregation. Integration is the first essential. And integration means that no part of anything is of any great value in itself except as it be the integrate part of the harmonious whole. Even my great old master designed for materials all alike; all were grist for his rich imagination and he lived completely as artist—all to the contrary notwithstanding—only with his sentient ornament. Contrary to the ideas formed of him by wordwise but superficial critics, in this he created out of himself a world of his own—not yet appreciated at its true worth. How could it be—yet? In this expression he went beyond the capacities of any individual before him. But all materials were only one material to him in which to weave the stuff of his dreams. Terra-cotta was that one material. Terra-cotta was *his* material—the one he loved most and served best. There he was master. But I honoured him when I carried his work and thought further along by acting upon this new train of ideas, and the acts soon brought work sharply and immediately up against the tools that could be found to get these ideas put into new forms of building.

What a man does—*that* he has. You may find other things on him, but they are not his.

TOOLS

What were the tools in use in the building trades everywhere? *Machines* and the automatic process: too many of them. Stone or wood planers, stone and wood moulding shapers, various lathes, presses and power saws—the casting of metals and glass—all in commercially organized mills. The kiln, sheet-metal breakers, presses, shears, cutting-moulding and stamping machines in foundries and rolling mills, commercialized machine "shops"; concrete mixers, claybreakers, casters, glass makers themselves and the trades union *versus* capital—all labourers' or employers' units in a more or less highly commercialized greater union in which craftsmanship had no place except as survival for burial by standardization. Quantity production—or standardization—was already an inflexible necessity either as enemy or friend. You might choose. And as you chose you became master and useful, or a luxury and eventually the more or less elegant parasite we call an "eclectic"—a man guided only by instinct of choice called "taste."

By now I did not choose by instinct. I felt, yes, but I *knew* why and what it was I felt concerning architecture.

EXPERIENCE

Already, when I began to build, commercial machine-standardization had taken the life of handicraft. But out-worn handicraft had never troubled me. To make the new forms living expression of the new order of the machine and continue what was noble in tradition, did trouble me. I wanted to realize genuine new forms true to the spirit of great tradition, and found I should have to make them; not only make forms appropriate to old (natural) and to new (synthetic) materials, but I should have to so design them that the machine (or process) that must make them could and would make

them better than anything could possibly be made by hand. But now with this sense of integral order in architecture supreme in my mind I could have done nothing less unless I could have commanded armies of craftsmen as later I did command them in the building of the Imperial Hotel—a building in no sense a product of machine method. By now, safe inner discipline had come to me: the discipline of a great ideal. There is none so severe. But no discipline yields such rich rewards in work, nor is there any man so safe and sure of results as the man disciplined from within by this ideal of the integration that is organic. Experience is this man's "*school*." It is yet his only school.

As I put ideas to work in materials, lesser ideas took flight from this exacting, informing ideal. But always in the same direction. Further on they went on each occasion for flight, which was each new building I built, until great goals were in sight. Some few of the goals have been partially realized. You may see the "signs and portents" gathered together in various exhibition galleries if you can read drawings and models. The photographs are poor because the depth-planes cannot be rendered by photography. But a number of the buildings are scattered or mutilated, and most of the best drawings are gone. The best buildings, too, were never built and may only be studied by the record. But later designs and models all exemplify in some material or grouping of materials or idea of arrangement these early objectives. Lieber Meister had been searching for "the rule so broad as to admit of no exception." For the life of me I could not help being most interested in the exception that proved the rule. This may explain "inconsistency" in performance and apparent departure from original objectives.

CLIENTS

A group of young Chicago architects were gathered about me as disciples and friends in the early days—about 1893. They were my contemporaries and all learned from me to speak a new language. I wrote a little and tried to stem the tide of imitation. An instance was the paper read at Hull House some thirty years ago on "The Art and Craft of the Machine." Occasionally—then an indifferent lecturer—I lectured. But talking isn't building, as I soon saw where any "school," as they called it (and later had names for the branches), had to actually *build*. Among these contemporaries the more ambitious began to call the new dwellings that appeared upon the prairies from 1893 to 1910—"The Prairie School." I suppose this was modern architecture's first gallery? None knew much of Louis Sullivan then, except by such work as he had done, and to a certain extent they imitated him, too—imitating his individual ornamentation as the feature most in view. Some years later, C. R. Ashbee came over to the United States, and Kune Frank, of Harvard, came to Oak Park. They saw the new work on the prairies and carried the tale of it to Germany in 1908. Some fifteen or twenty years later a Swiss (in France) was to rediscover the preliminary æsthetic—the affirmative negation declared by the Larkin building, widely published at the time when it was built, and rendered by an article in the *Architectural Record*, March, 1908. But already—by 1910—the ideal of an organic architecture as affirmation had gone far beyond that affirmative negation in my own work and was at work in Europe.

REACTIONS

Before trying to put down more, in detail, about the great goals now in sight, popular reactions to this new endeavour might be interesting. After the first "prairie house" was built—the Winslow House in 1893—which only in the matter of ornamentation bore resemblance in respect to the master (in the Charnley House I had stated, for the first time so far as I know, the thesis of the plain wall given the nature of decoration by a well-placed single opening which is also a feature of the Winslow House), my next client said he did not want a house "so different that he would have to go down the backway to his morning train to avoid being laughed at." That was one popular consequence. There were many others; bankers at first refused to loan money on the "queer" houses, so friends had to be found to finance the early buildings; mill-men would soon look for the name of the plans when the plans were presented for estimates, read the name of the architect and roll up the drawings again, handing them back with the remark that "they were not hunting for trouble"; contractors more often than not failed to read the plans correctly, so much had to be left off the buildings. They were off the main track. The clients themselves usually stood by, often interested and excited way beyond their means. So, when they moved into their new house, quite frequently they had no money left, had borrowed all they could and had to drag their old furniture into their new world. Seldom could I complete an interior because the ideal of "organic simplicity" seen as the countenance of perfect integration (as you have already read) naturally abolished all fixtures, rejected the old furniture, all carpets and most hangings, declaring them to be irrelevant or superficial decoration. The new practice made all furnishings so far as possible, and certainly the electric lighting and heating systems, integral parts of the architecture. So far as possible all furniture was to be designed in place as part of the building. Hangings, rugs, carpets, were they to be used—as they might be if properly designed—all came into the same category. But the money matter generally crippled this particular feature of the original scheme—made trouble in this process of elimination and integration.

(*To be continued*)

THE HARPENDEN COMPETITION

The following announcement by the Council of the R.I.B.A. appeared in the *R.I.B.A. Journal* for July 18:

In consequence of complaints which have been received about the Assessor's award in this competition, the Council has examined the conditions of the competition and the design of the competitors placed first by the Assessor.

The Assessor has also been interviewed on the matter.

While the Council feels that the Assessor has acted throughout in perfectly good faith and in what he considered the best interests of the promoters, the Council considers that he did in fact contravene, in his award, one of the conditions which he had himself laid down, and thereby disregarded Clause 6 of the Directions for Assessors, which reads as follows:

> "As the award will be final and binding on all parties, and in order that it may afford no ground for legitimate criticism after publication, the Assessor must not premiate any design, whatever its architectural merit, which contravenes any of the conditions and replies which he has drawn up."

The Council thinks it desirable to point out that it looks upon such a course with grave disfavour, and in order to avoid a repetition of such incidents the Council would remind Assessors of the recommendation contained in Clause 3 of the Directions for Assessors that for the purpose of giving competitors full latitude in the solution of the problem the requirements of promoters should, as far as possible, be put in the form of suggestions, but that if any special materials, type of construction, architectural style or grouping should be desired these should be stated.

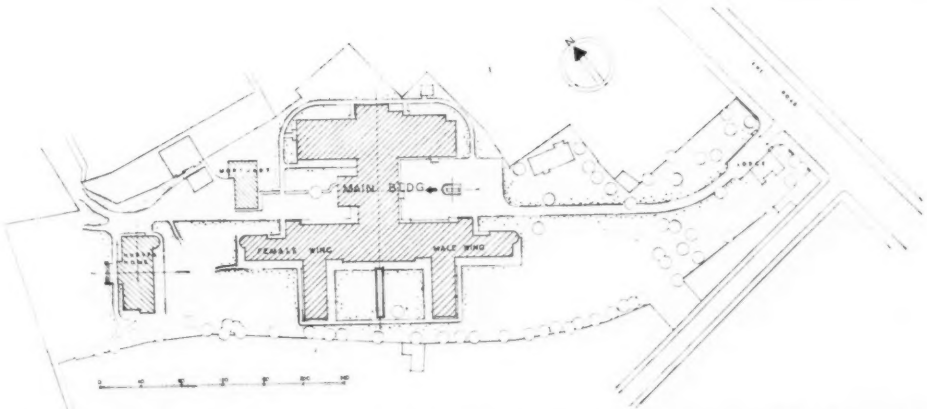
OVERCROWDING: SCOTLAND

We have received from the Department of Health for Scotland a circular on the measurement of rooms in connection with the survey of overcrowding under the Housing (Scotland) Act, 1935, which is being issued to every local authority in Scotland.

Copies of the circular (No. 85-1936) are obtainable from H.M. Stationery Office, price 1d.

SURBITON HOSPITAL, SURREY

DESIGNED BY WALLACE MARCHMENT



SITE PLAN

GENERAL PROBLEM—*The hospital was the subject of an open competition in 1933, the major requirements being a "ground floor" hospital with staff rooms only on an upper floor, a mortuary block and nurses' home. Some photographs of the exterior, taken while the hospital was under construction, were published in* THE ARCHITECTS' JOURNAL *for January 16 last. The hospital has now been completed and was opened by the Duchess of Gloucester on July 28.*

The photographs show : top, the south-east (main) front ; centre, the main approach from Ewell Road.

SURBITON HOSPITAL, SURREY:

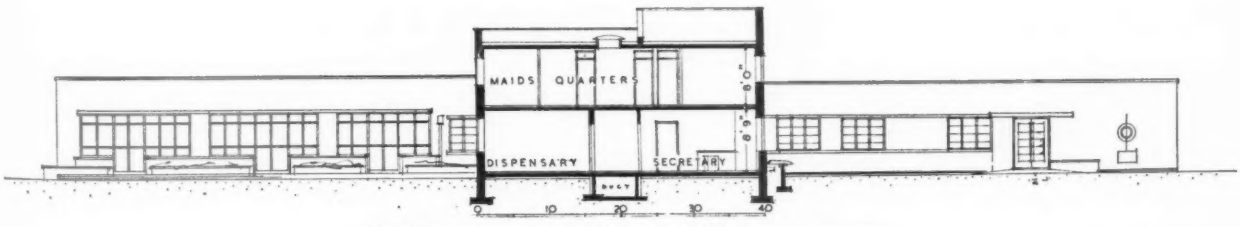
A general view, taken from the nurses' home.

HOSPITAL BLOCK: GROUND FLOOR PLAN

DESIGNED BY WALLACE MARCHMENT

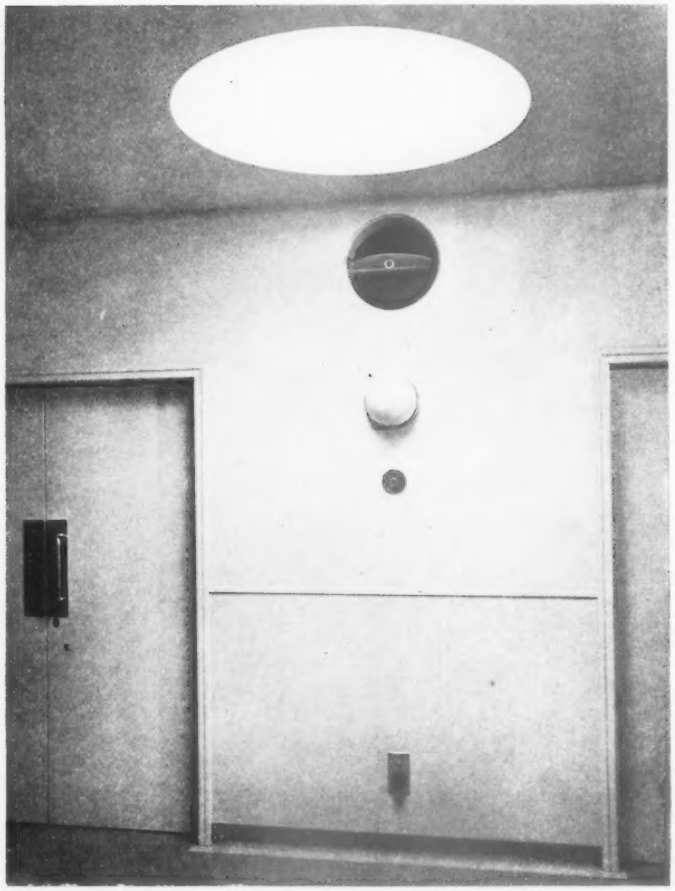
CONSTRUCTION—*Brick weight-carrying walls, with hollow-tile floors and roof, the latter finished with hard-core blanket, screed and asphalt. The partitions are of diatomaceous earth hollow blocks. Sound-proofing is carried out by double partitions with insulation board between.*

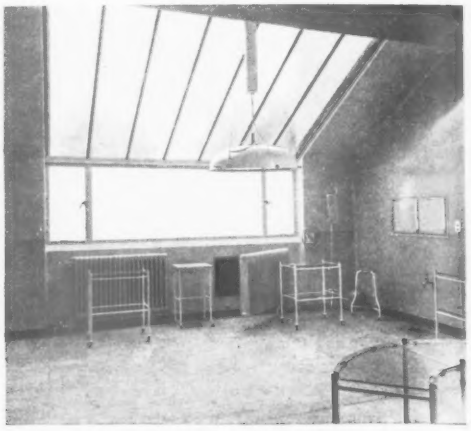
ELEVATIONAL TREATMENT — *Light tone facing bricks, five courses to the foot, with slightly recessed joints and Portland stone copings and cills. Steel windows. Hoods over windows are cantilevered from R.C. lintols, and are finished in cream cement. The photograph is of the south-east (main) entrance.*



HOSPITAL BLOCK: SECTION K—K

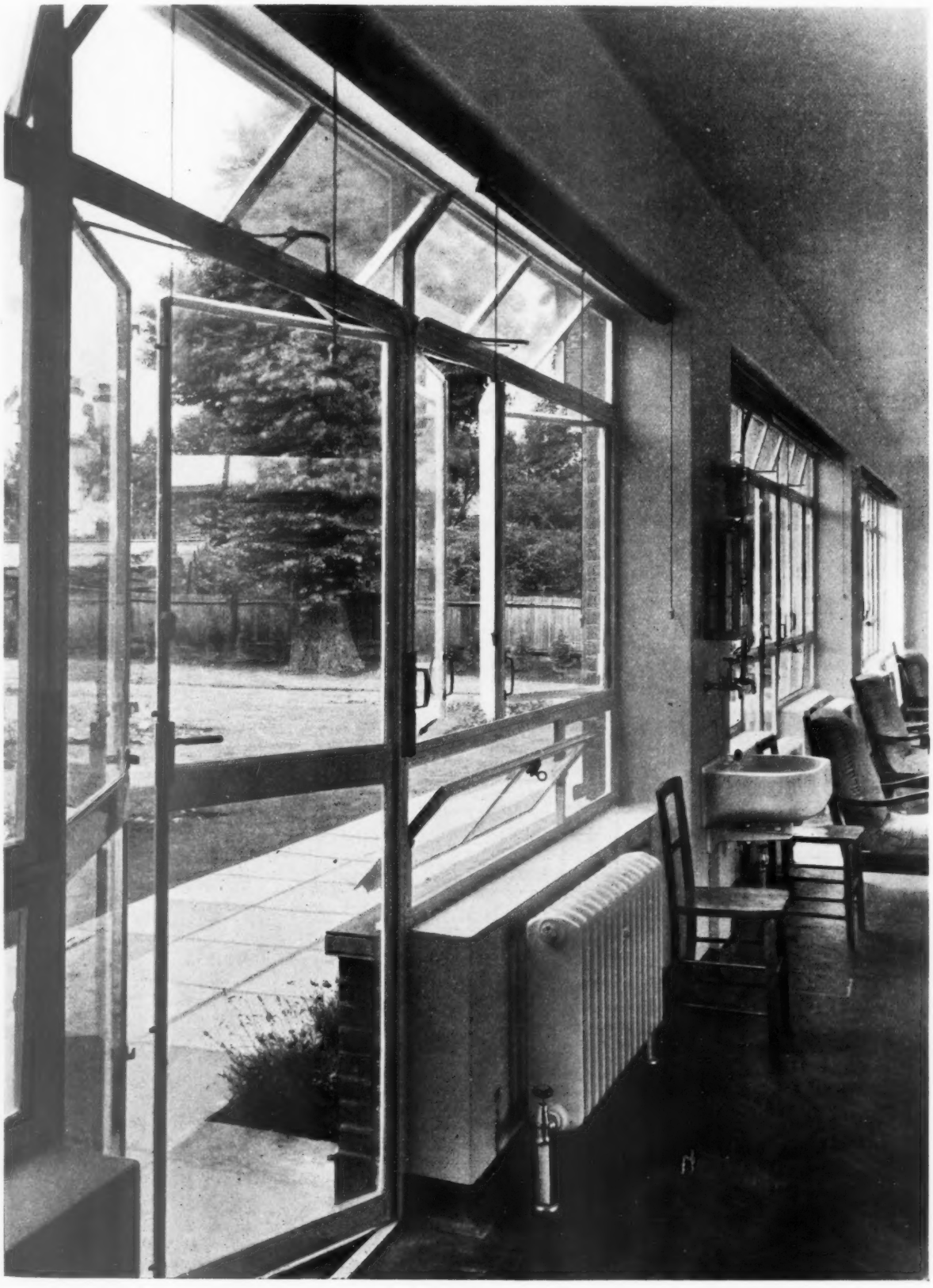
SURBITON HOSPITAL, SURREY:





The top left-hand photograph, taken in the corridor, shows, left, the exit doors leading from and, right, the entrance doors to the operating theatre unit. Beneath the circular toplight are the fan extract and flap control for the corridor ventilation; one of the lamps of the combined primary and emergency lighting system; the switch for the fan extract; and the power plug for the cleaning and polishing equipment. The other photographs show: left, bottom, the female thirteen-bed ward; right, top, operating theatre; centre, kitchen; bottom, a corridor. On the facing page is a detail photograph of the doors and windows in the female ward.

DESIGNED BY WALLACE MARCHMENT



SURBITON HOSPITAL, SURREY

DESIGNED BY WALLACE MARCHMENT

INTERNAL FINISH—*The entrance hall is floored with pre-cast travertine terrazzo tiles. Corridors have floors of cork composition, with terrazzo skirtings and dados. Lavatories have terrazzo floors, skirtings and dados.*

All wards have floors of Rhodesian teak blocks, terrazzo skirtings and enamelled plaster walls. Ward fireplaces are "in situ" terrazzo with pre-cast shelves over. Boardroom has teak block floor and flush dado of curly birch.

Kitchen has pre-cast terrazzo tile floor and white glazed tiled walls. Fittings, such as cupboards, are built in or fitted close to walls.

SERVICES—*Heating is by low-pressure system, and boilers for both this and hot water supply are fired by automatic solid fuel stokers, and both systems are accelerated.*

All pipes are concealed, but easily accessible, and mains are carried in a creeping way under the corridors, with branches in smaller floor conduits.

There are gas fires in all wards except the two general, which have electric radiators, and there are coal fires in staff sitting-rooms.

The telephone installation has a private automatic branch exchange. Wireless is installed above all patients' beds, loud-speakers in staff rooms.

Patients' call system is by lights operated by a push at each patient's bed which indicates over the patient's bed, above the ward door on its corridor side, and in the ward duty room.

COST—*The building was executed under a single contract at an approximate cost of £37,000.*

For list of general and sub-contractors see page 162.

The photograph and plans are of the nurses' home.

SOCIETIES AND INSTITUTIONS

THE WELSH SCHOOL OF ARCHITECTURE

The following awards have been made as a result of the Sessional Examinations at the Welsh School of Architecture at the Technical College, Cardiff.

Fifth Examination for the Diploma awarded at the end of the five years' full-time course, exempting from the R.I.B.A. Final Examination and qualifying for registration under the Architects' Registration Act :—

I. J. Lewis (Diploma, with distinction in Thesis and Construction); H. Namik (Diploma, with distinction in Thesis); R. Pitchford (Diploma); H. Scard (Diploma, with distinction in Thesis, Design and Construction); S. Smith (Diploma, with distinction in Thesis); C. R. Vickery (Diploma, with distinction in Thesis).

Fourth Examination : D. Jenkins, I. Jones, D. Owen, N. Thomas, and L. Wall.

Third Examination for the Certificate awarded at the end of the three years' full-time course, exempting from the R.I.B.A. Intermediate Examination :

(Miss) G. Staley (Certificate); H. Williams (Certificate with distinction); and R. Pitchford (Certificate).

Second Examination : D. Gwilliam, R. Howells, (Miss) J. Treatt.

First Examination : (Miss) N. Evans, and T. Gedrych.

THE BARTLETT SCHOOL OF ARCHITECTURE

The following awards have been made at University College, London, in the Bartlett School of Architecture :

Entrance Exhibitions : Barbara E. Buss (the Abbey School, Reading) and G. E. Rothen (Latymer Upper School). Donaldson Silver Medal (awarded by the R.I.B.A.) : E. H. L. Osman. Herbert Batsford Prize : J. R. Stammers. THE ARCHITECTS' JOURNAL Prize (for the best final design produced in the day school by a fourth-year degree or diploma student) : B. B. Learoyd. *The Builder* Prizes (for the best sets of measured drawings of old work) (1935)—Senior : A. M. Foyle and P. Holland (equal); Junior : L. F. Baker. Prizes for Design in Reinforced-Concrete (awarded by "Concrete Publications.") : 1st, S. P. Jewitt; 2nd, Marjorie Tall. Sir Andrew Taylor Prize (for the best set of drawings, combining construction and design, by a fourth-year student) : M. Jadhav. *Architecture Atelier* (Bossom Silver Medal) : N. E. Block.

The following have obtained the Diploma in Architecture : M. H. Bristow, R. W. Cave, R. A. Kayll, A. J. Prior, N. K. Siang, Joan Sherman, Marjorie Tall, M. G. Desai.

The following have obtained the Certificate in Architecture : J. W. Creasy, S. M. Desyllas, T. H. H. Hancock, P. Holland, F. N. Kan, H. M. Lidbetter, T. D. Oxley, Y. Perlstein, J. P. Rhodes, Jean J. Stops, Margaret M. Troup.

The following have obtained the Certificate in Decoration : Phyllis Craske (commended), Mary E. Godfrey, Anne Page (commended), Eileen L. Densham Smith.

The following have obtained the Certificate in Town Planning : N. J. Aslan, Irene M. Austin, S. T. Bramble, H. G. Castleman, J. M. Curry, M. G. Desai, A. Dumble, L. J. Hodges, A. G. Ling, R. H. Martin, W. Orbell, R. J. S. Roberts, Joan Sherman, B. H. Thompson.

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE

Town planning and ribbon development were discussed by Mr. Edward W. Eason, in his presidential address to the above Institute on July 15. The speaker said :

"This subject is one which will demand serious consideration on the part of most estate agents in the near future. It is perhaps an idle hope, but I do hope that some limit has now been reached in the case of Town Planning so far as the output of legislation is concerned, and that we may therefore look forward to a general putting into practice in the near future of the provisions and principles which have been laid down in Town Planning Acts. As in other departments of social legislation, controlling powers seem to have been placed in the hands of local authorities and Whitehall. It will be interesting to see how far these local authorities prove themselves to be the proper persons to have this control over the country generally. That that control is necessary admits, I suppose, of no doubt, but the fact should not be lost sight of that what I may call intelligent anticipation of individual enterprise is to be checked. Provided the check is applied to the best advantage, this will probably result in improvement to the countryside, and perhaps to the towns.

"The present effect of town-planning experiments would seem to be producing only suburban districts on the outskirts of towns, with the inevitable trouble that these suburban districts are divided into separate classes of houses, with the different classes of the community being subdivided and segregated. Although this may be a necessary concomitant evil of great cities, yet, until recent years, no town or village has grown in that way; rich and poor, high and low, have all lived together and formed a community.

"It does seem that the root cause of these troubles as to housing has been the erection of factories in close proximity to one another, without regard to these amenities which modern science indicates should be provided for them. The obvious remedy would seem to be some form of administrative procedure being applied, which would have as its effect that the factories and the appropriate businesses dependent on these factories would tend to scatter into smaller communities farther afield. The pressure in the large towns would be thereby reduced, and improved amenities secured, both to the existing towns and to the scattered communities, by means of satellite cities.

"I am bound to confess that to me it seems lamentable, as one travels out of London, to see in various districts great tracts of country covered with houses of only one class. Certainly, no question of town planning can be said to have entered into the provision of these tracts of houses. On the other hand, for those people who can be induced to live on the 'herd' system, and who must live in the centre of large towns, the clearance of uneconomic mean houses and streets and the provision of sanitary economic housing in flats must have proved an immense benefit.

"If the Town Planning Authorities should be able to arrive at a conclusion as to what number of people represent the maximum which should constitute a Collective Community, beyond which point a large supporting agricultural belt should separate them from the next community, I think town planning would certainly have justified itself. I have not yet heard whether such a scheme has been formulated or considered, but I think the time has arrived when something of the kind should not be longer delayed."

R. I. B. A.

ELECTION OF MEMBERS

At a Council meeting of the R.I.B.A. held on Monday, July 20, the following members were elected :

As FELLOWS (10) : Dempster, John Austin (London); Fox, Charles William (London); Shearer, Thomas Smith (London); Aitken, Henry Andrew (London); Aldridge, Vernon (Ventnor, Isle of Wight); Henson, Charles Arthur Edward (London); Mendis, Ahangama Badugey, A.R.C.A.(Lond.) (Ceylon); Pearson, Ernest Walter (Bournemouth); Toomer, Albert John (Taunton), and Weald, George (London).

As ASSOCIATES (18) : Cadbury-Brown, Henry Thomas (Architectural Association) (London); Clay, George Inglis (Architectural Association) (Cobham, Kent); Collins, Arthur Charles, Dip.Arch.Design (Melb.) (Whyteleafe, Surrey); Costello, Frank Gibson (London); Harkness, John Cam, A.A.Dip. (Architectural Association) (Berkhamsted, Herts); Hirst, Philip Edwin Dean (Liverpool School of Architecture, University of Liverpool) (Liverpool); Holt, John (Armstrong College School of Architecture (University of Durham), Newcastle-upon-Tyne) (Chester-le-Street, Co. Durham); Hurd, Samuel James (Dublin); Johnson, William Frederick (Birmingham School of Architecture) (Coventry); Noble, John Baillie (School of Architecture, Robert Gordon's Colleges, Aberdeen) (London); Prasad, Vishwa Nath, Dip.Arch.Edin. (School of Architecture, Edinburgh College of Art) (Edinburgh); Sergent, William Henry (Liverpool School of Architecture, University of Liverpool) (Southport); Sheppard, Richard Herbert (R.W.A. School of Architecture, Bristol, and the Architectural Association) (London); Spreull, David Wilson, Dip. Arch. (Liverpool) (Liverpool School of Architecture, University of Liverpool) (Dundee); Thomas, Arthur Selwyn (Welsh School of Architecture, The Technical College, Cardiff) (London); Thornely, Michael Eric (Architectural Association) (Liverpool); Todd, Wemyss Wylton (London); and Wills, Miss Dorothy Mary (School of Architecture, University College, Auckland, New Zealand) (Tauranga, New Zealand).

As LICENTIATES (7) : Claridge, George James Robinson (Bexleyheath); Copson, Percy George (Northampton); Gale, Jack Elfstrom (London); Harrison, Thomas Winder (Ashford, Kent); Lowe, John Cottrell (Redhill); Roberts, Ivan Frederick (Oxted, Surrey); and Wilson, Stephen Grylls, M.A. (Oxford).

LETTERS FROM READERS

AUDAX

A Trunk Road Questionnaire

SIR,—As a constant reader of your pages, I was not at all surprised to see you give a place of importance in your issue for July 16 to the Trunk Road Nationalization Scheme, and, in your issue of the previous week, to see Astragal hailing it as a great opportunity to secure orderly layout and simple decency of design in everything connected with 4,500 miles of highway.

In the near future we are likely to see large-scale schemes of improvement begun on the trunk roads, and it might therefore be useful to consider some of the problems which will arise. Stated briefly, there seem to be three conditions which must be fulfilled if trunk road reconstruction is to be completely successful. The roads must be adequate to carry the traffic, they must be safe, and æsthetically they must be an asset to the country. The first of these, the traffic problem, will no doubt be solved by duplicating carriageways, providing cycle tracks and service roads and controlling access; and the second problem, road safety, will, it is certain, receive every consideration possible. There seems to be no reason to be despondent of our ability to overcome either of these difficulties. But what of the third problem? Can we be certain that this will receive every attention possible, and that it will not occupy a very inferior position to the first two? Can we be certain that those in responsibility will realize, for instance, that the frontage development is as much part of the design of the road as the carriageway? Can we even be certain, in fact, that those in control will realize that such a problem exists? No one can deny that the existence of the problem is hardly recognized under the present system, Will the transfer of responsibility to the Ministry of Transport involve a change or infusion of new spirit into the administrative personnel which will make the position any better? The Government's policy in this respect will be anxiously awaited by those who are seriously perturbed at the steady destruction of the countryside by urban beastliness and the complete lack of any of the qualities of good design in nine-tenths of the present-day development.

The æsthetic problem, as far as the Trunk Roads are concerned, can be analysed into three parts; first, there is the design of all the features between (and including) the highway fences—bridges, culverts, lamp-posts, curbs, verges and tree and shrub planting. Secondly, there is the design or control of the frontage development. This is a very important side of the problem, because, although there will be no national control of the Trunk Roads in County Boroughs, yet the Ministry of Transport's responsibilities will exist on many miles of roads in urban and developing areas. It would be but a half-hearted achievement to give every attention to the design and layout of the road itself and then to allow it to be lined on either side with advertisements or with the illiterate productions of the jerry-builder. The third aspect of the problem is the treatment of the trunk roads in rural areas, which would include such questions as the construction of parkways, the preservation of buildings, trees and woodlands, and the desirability of by-passing villages. Few thinking people will question the necessity for preserving villages, and trunk roads, by reason of their width alone, will be terrible weapons of destruction if wrongly handled.

To deal with a problem like this, which is really of the greatest national importance, would there not be very sound justification for enrolling architects on the Trunk Road administrative staff and giving them every opportunity to be in the closest touch with every aspect of trunk road design and location? Or, if this were not practicable, could not some really efficient scheme of architectural collaboration be evolved (though anyone with any experience of Local Government administration must realize that all methods of "reference" control usually prove to be hopelessly clumsy in practice, and that everything depends to an enormous extent upon the capabilities of the man in immediate control)?

The architectural control of frontage development by the Ministry of Transport would, of course, require Statutory Authority. At the present moment, constructional control is exercised by the Local Authority under the Building By-laws; zoning, density and elevational control by the Planning Authority (where such exists), and access control by the Highway Authority under the Restriction of Ribbon Development Act. When the Ministry of Transport becomes Highway Authority, why should it not be given control over the appearance of all new buildings within, say, one building depth from the ultimate highway boundary? This change would not make the position any more complicated than it is at present. It would merely involve a transfer of function from the Planning Authority to the Ministry of Transport, and if successful it would be a good example to other Authorities. Given an efficient architectural staff, which the Ministry of Transport could afford, and which small Local Authorities and Planning Authorities never can afford, it should be possible, by a combination of legal and persuasive methods, to raise very considerably the standard of design along Trunk Road frontages.

England is a small country and during the last hundred years destruction has gone on at such a pace and so little restrained and orderly development has been achieved, that we can ill afford to miss the magnificent opportunity now about to present itself for making the reconstructed Trunk Roads truly representative of the best efforts of a great nation. In twenty years' time shall we possess the finest Trunk Road system in the world, or shall we find the countryside scored by a series of straight, stark, oil-stained motor roads, driving indiscriminately through village and woodland and lined for miles with the ill-considered productions of the speculative builder, destroying everything and contributing nothing to the national life?

AUDAX

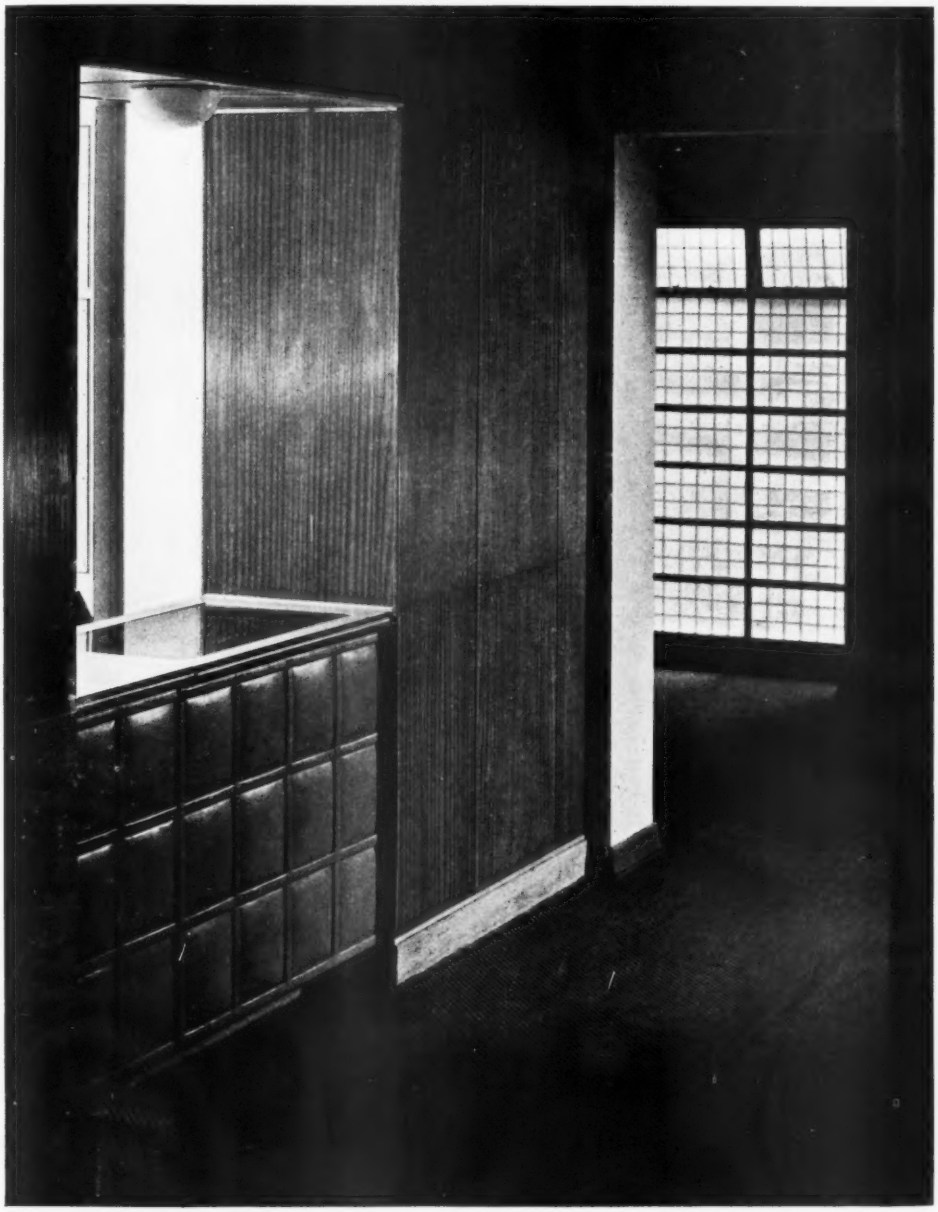
The Building Research Station

A new laboratory for research on the heating of buildings has been completed at the Building Research Station of the Department of Scientific and Industrial Research so that work can go on all the year round, instead of only in the winter, quite independently of the vagaries of British weather.

The laboratory was formally opened on July 22, by Sir Frank Smith, Secretary of the Department of Scientific and Industrial Research, on the occasion of the annual visit to the Building Research Station of the Institution of Heating and Ventilating Engineers, who are providing a sum of £1,500 to enable the studies of heating problems at the Station to be speeded up and extended.

WORKING DETAILS : 463

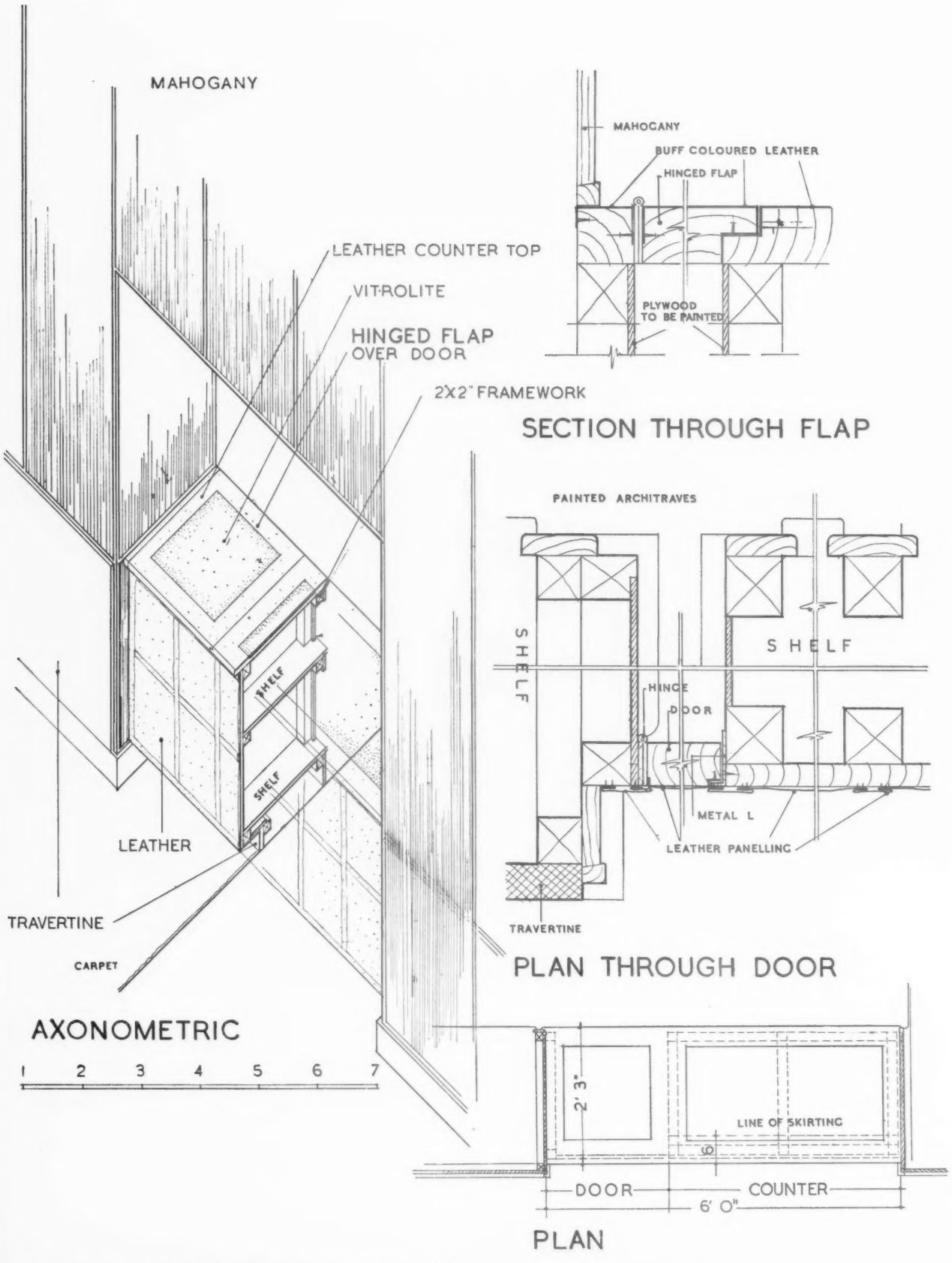
RECEPTION DESK • ARLINGTON HOUSE, ST. JAMES'S, S.W. • MICHAEL ROSENAUER



The reception desk shown in the photograph reproduced above is in the entrance hall of Arlington House. The front and top of the desk are covered with buff-coloured leather fixed to the woodwork with concealed nails ; the panel in the top of the desk is of black glass. The walls of the entrance hall are lined with sapele mahogany divided into vertical strips by narrow beads of Indian white mahogany and the skirting is of travertine.

WORKING DETAILS : 464

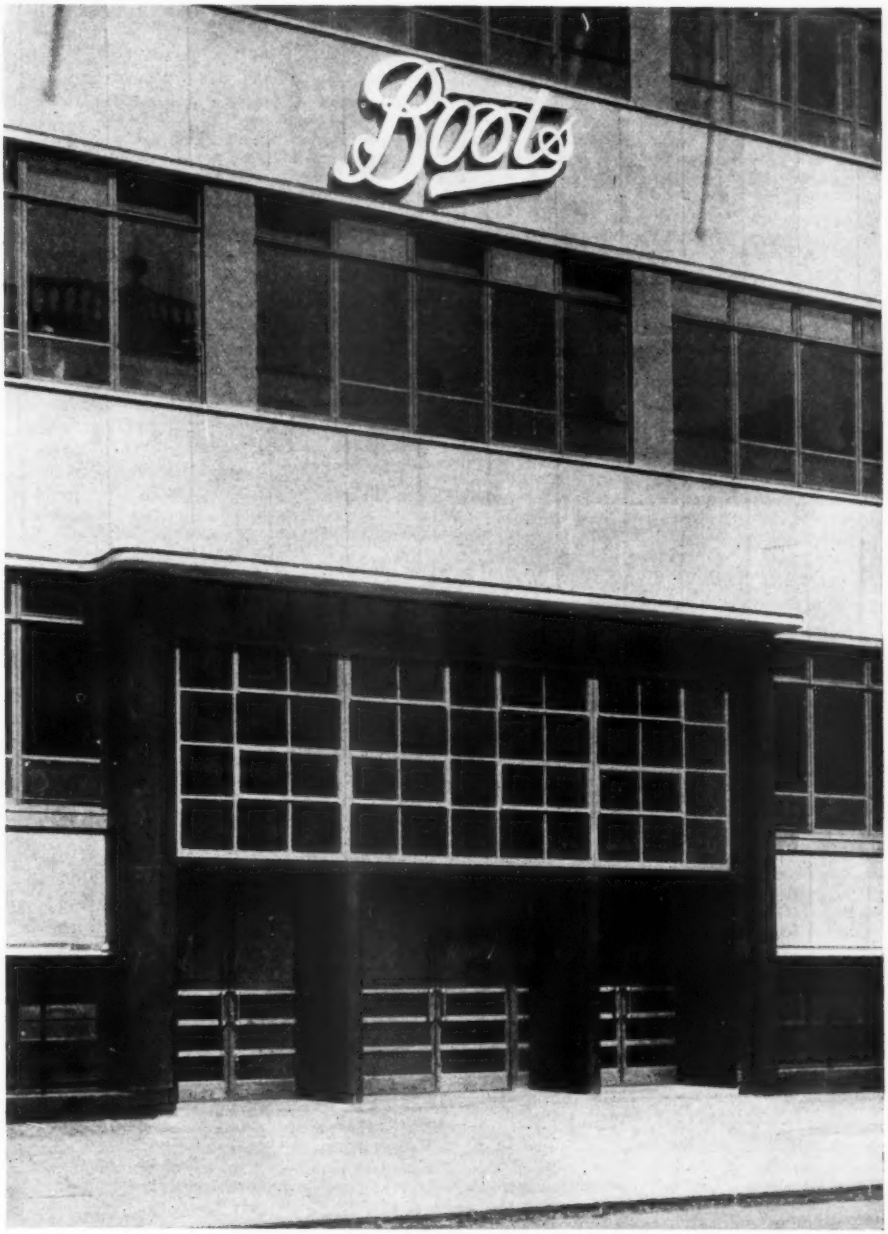
RECEPTION DESK • ARLINGTON HOUSE, ST. JAMES'S, S.W. • MICHAEL ROSENAUER



Axonometric and details of the desk illustrated overleaf.

WORKING DETAILS : 465

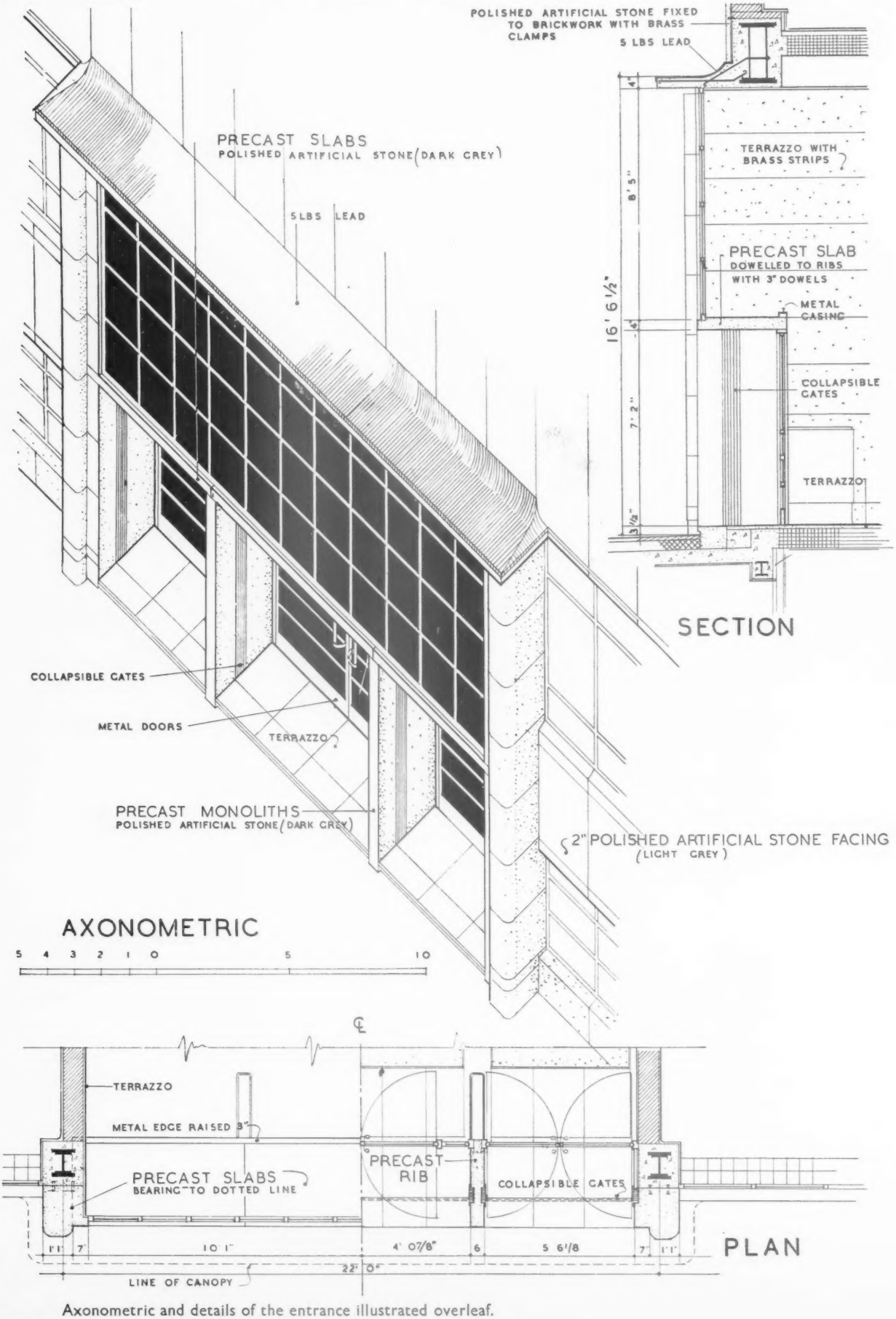
ENTRANCE DOORS • BOOTS' BUILDING, STAMFORD STREET, S.E. • MESSRS. HENRY TANNER



The entrance shown in the photograph reproduced above, which is the principal entrance to the building, is carried out in dark grey precast stone, the rest of the building being faced with the same material but in light grey. The framing round the door consists of precast monolithic slabs, six inches thick. The joints of the horizontal slabs occur on the centre line of the vertical slabs, to which they are dowelled, while their outside ends are built into the wall for seven inches. The span of the centre slab is 8 ft. $7\frac{3}{4}$ ins.

WORKING DETAILS : 466

ENTRANCE DOORS • BOOTS' BUILDING, STAMFORD STREET, S.E. • MESSRS. HENRY TANNER



Axonometric and details of the entrance illustrated overleaf.

IN THAT CONTINGENCY

The following abstracts of enquiries represent a number of those recently submitted to the Building Research Station. The information given in the replies quoted is based on available knowledge. It has to be borne in mind that further scientific investigations may in the course of time indicate directions in which the replies might be supplemented or modified. Moreover, the replies relate to the specific subject of each enquiry, and are not necessarily suitable for application to all similar problems.

Dry Rot in Solid Timber Floors

¶ *THE surveyor to a local authority stated that in some houses erected a few years ago the use of linoleum on ground floors had been forbidden as a precaution against dry rot attack. These floors were of timber bedded on concrete. There was now a strong demand on the part of the tenants for linoleum finishes and an opinion was required on the effect of such coverings as an agent in producing dry rot in the floor timbers. It had been suggested that a margin of nine or twelve inches left round the linoleum might meet the requirements of the case.*

The correct procedure in this case would depend on the manner in which the floor is constructed. In a previous note from the Information Bureau of the Building Research Station* the construction of solid wood floors was discussed, and it was pointed out that :—(1) a truly impermeable membrane must be provided to insulate the boarding from moisture rising from the ground, and (2) the boarding must be securely fixed without breaking the waterproofing membrane to a harmful extent. If, in the present case, these requirements have been met by one of the methods set forth in the above-mentioned note there should be no need for restriction of floor coverings.

Where, however, there is risk of moisture reaching the timber and thorough preservative treatment has not been applied, it is necessary to supply the maximum degree of ventilation in order to keep the moisture content of the timber below the limit at which it is subject to dry rot attack. In most cases, the only practicable method of obtaining any ventilation whatsoever would be to dispense with an impervious covering. Allowing free evaporation from the upper surface in this way may sometimes be sufficient to prevent dry rot even though the construction is imperfect, but it must be realized that in many cases such precautions may result only in a reduction in the severity of the attack.

In no case is linoleum an active source of dry rot, however, and restriction of its use should be regarded merely as a last resort when defective construction produces conditions otherwise favourable to dry rot attack.

Comparatively little ventilation would be obtained by leaving a narrow margin round linoleum, and the range of usefulness of this method of treatment would be correspondingly slight. It is not thought that this measure should be relied upon to prevent dry rot in cases where there is the slightest doubt as to the soundness of the construction.

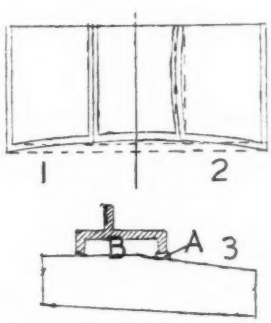
Although there is no objection to an impervious covering in conjunction with sound construction it should be noted that reasonable care is desirable in washing linoleum-covered, solid wood floors since any water passing through the joints or round the edges may be absorbed by the boarding and has no means of escape. Such floors should, therefore, not be swilled down carelessly and any superfluous water should be mopped up as soon as possible.

*Issued from the Building Research Station in December, 1933.

Distortion of Steel Window Frames

¶ *AN unusual case of distortion of steel window frames was reported by a firm of architects. The building in which the trouble occurred was of five storeys with brick external walls and concrete floors carried on concrete-cased steel beams. It was used for warehouse and manufacturing purposes and was about thirty years old. It was stated that in about sixty windows on one frontage visible bending of the glazing bars had occurred, which had caused the glass to crack and the moving parts to jam. The cement rendering to many of the lintels over the defective windows was cracked, and, since each lintel supports a floor beam at its centre, it was thought that the lintels might have deflected. An opinion was required on the cause of the trouble and the most economical method of repair. The following report was made after an inspection by an officer of the Building Research Station.*

The distortion was found in almost all cases to be confined to the bottom of the windows; two exceptions to this general statement are referred to later. The most



distorted part of the frame was the sill bar, which had taken the general form shown in Sketch 1. In some cases the upward thrust had caused distortion of the lower vertical bars in the manner shown in Sketch 2.

The steel sills showed signs of serious corrosion and it was found that masses of rust had formed in the channel of these sill bars to a thickness of $\frac{1}{4}$ in. or more. The corrosion had been so severe that the channel was packed tight with a mass of rust and the design of the junction between the masonry sill and sill bar was therefore rather a matter of conjecture. It appeared to be simply as in Sketch 3. Possibly the external joint at A was originally filled with putty. The depth of the channel at B was only about $\frac{1}{4}$-$\frac{3}{8}$ in.

It is known that the rusting of iron can set up high stresses when it occurs in enclosed positions and it is considered that the distortion observed here was brought about in this way. It is therefore concluded that the trouble is due essentially to poor "weathering" at the contact of the frame and the sill, and this may have been accentuated by inadequacy or absence of paint protection of the metal frame before fixing. The part of a metal frame in contact with the window reveal cannot be painted after fixing and if the protection was originally poor, or if water enters the joint, corrosion will occur. In this connection it may be noted that the lights in the top floor of the building, which have a gutter above and a narrow oak sill below, do not show the distortion observed elsewhere.

Two instances were noticed where distortion had occurred at the head of the window. At these points it was associated with severe cracking and spalling of the rendering over the lintel. There is no reason to suppose that the injuries are due to deflection of the lintels themselves.

It was found that when a chase was cut along the underside of the sill bar the frame sprang partly back into position and could be straightened.

In repairing the windows it is apparent that the rust must be removed from under the sill bar and allowance made for the frame to take up its normal position.

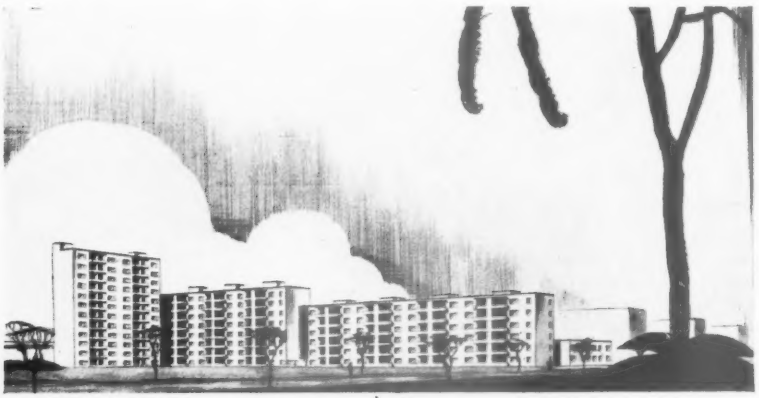
A weather-tight joint at the sill should for preference be obtained by a suitable design of channel and weather-strip, but in this instance it is difficult to see how this can conveniently be accomplished. The less workmanlike method of filling the joint with a plastic material must therefore be adopted. The following procedure is suggested :—

A deep channel should be cut in the sill and a special tool formed from steel strip to scrape away the rust as clearly as possible. The underside of the channel in the frame and the groove cut in the sill should be primed with bituminous paint, brushed with a stiff brush thoroughly into the surface. The groove and channel should then be filled with bitumen mastic thrust well up to the underside of the steel channel; thorough filling is imperative. Internally the bitumen mastic should be finished just below the level of the present sill and the work should be made good with sand and cement.

Floor to Resist Salt and Fats

¶ *ARCHITECTS asked for advice as to the best method of covering a factory floor. The floor in question was a first floor in reinforced concrete and would*

STUDENTS' WORK, ARCHITECTURAL ASSOCIATION



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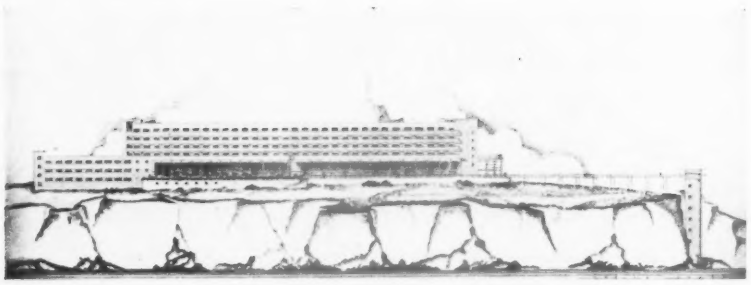

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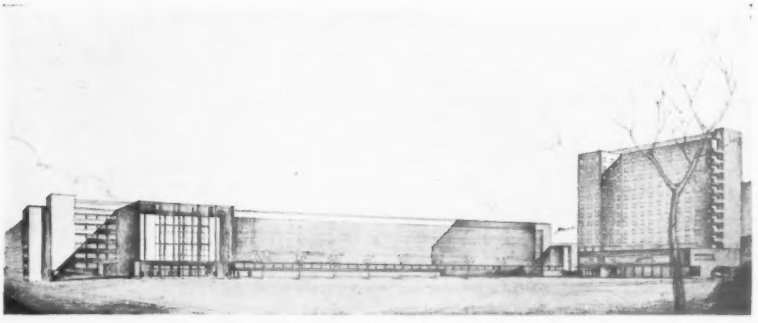

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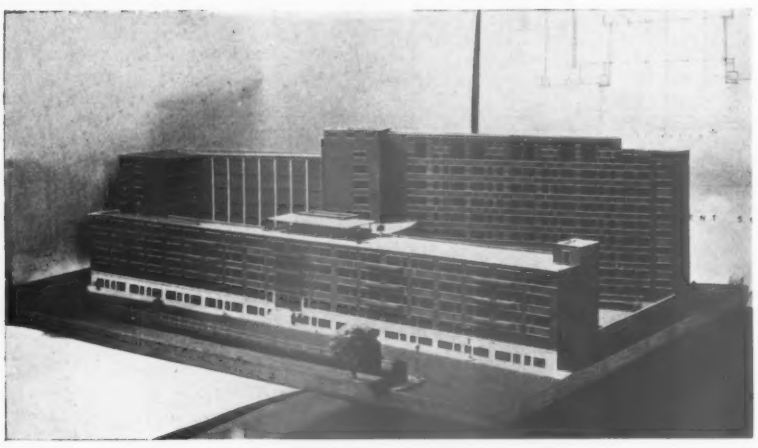


4

be exposed during the manufacturing processes to an abundance of salt and water and also to grease and fats. In a similar previous case they had found that a granite-concrete topping was unsatisfactory because this disintegrated and the salt and water penetrated the structural floor. It was considered important that the floor should not become slippery in use.

The nature of the floor covering that will be required to meet the severe conditions in this case is practically defined by the conditions to which it will be exposed, and it is quite certain that a proper treatment will be fairly expensive. In view of the fact that the first floor will be subjected to the action of salt and water, it is imperative that a continuous impermeable membrane should be provided over the whole surface, and this should be carried up the walls for a short distance. Asphalt will be suitable for this purpose.

Two previous cases of injury to reinforced concrete floors due to the action of salt have been investigated. In one case, the proportion of salt used in the process was apparently quite trifling but serious damage resulted, and severe corrosion of the steel led to spalling of the concrete. Granolithic flooring will not provide the necessary protection, owing to the risk of cracking, which would permit salt water to reach the reinforcement beneath.

The presence of grease and fat in the factory will necessitate the provision of some additional form of paving over the asphalt, as most forms of asphalt are softened by fats. Cement paving or tiles may be inadequate to resist the action of grease and fat, and it is therefore suggested that a ceramic tile should be used. It is difficult to suggest suitable jointing material for the tiles, since either cement or bituminous products will be attacked to some extent. Probably asphalt or bitumen would be the best form of jointing, and asphalt contractors will probably be prepared to suggest the grade of material most suitable for the purpose.

Under the conditions prevailing clay floor tiles may tend to become slippery, but vitrified tiles are available which have a fairly rough surface, and these are likely to give as good a foothold as can be expected in the circumstances.

The illustrations on the left are from the exhibition of students' work, Architectural Association School of Architecture, London.

1 : Paddington Rehousing Scheme. By R. C. Brown, R. A. Fever and D. C. Gill. (Thesis work.)

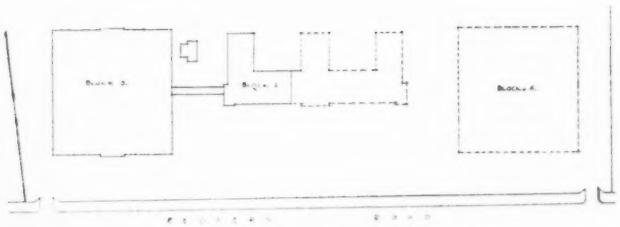
2 : Headland Hotel, Newquay. By Brian Peake. (Thesis work.)

3 : Scheme for Rebuilding Paddington Station. By G. H. Laurence and G. L. S. Townsend. (Thesis work.)

4 : Model of a block of Students' Flats, Regent Square, W.C.2. By J. R. Simpson and R. K. Rutherford. (Pre-thesis work.)

OFFICE BLOCK AT TYSELEY, BIRMINGHAM

DESIGNED BY GEORGE BERNARD COX (OF HARRISON AND COX)

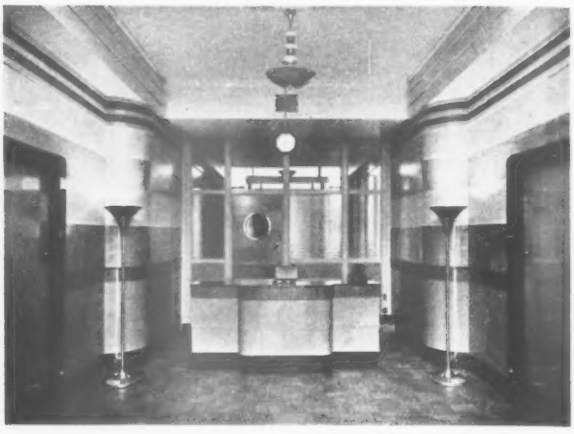


GENERAL PROBLEM—*Office block for Messrs. Bakelite, Ltd. The first portion, just finished, forms about one-third of the office building to be erected.*

SITE—*At Redfern Road Works, Tyseley, Birmingham, which cover an area of approximately 30 acres.*

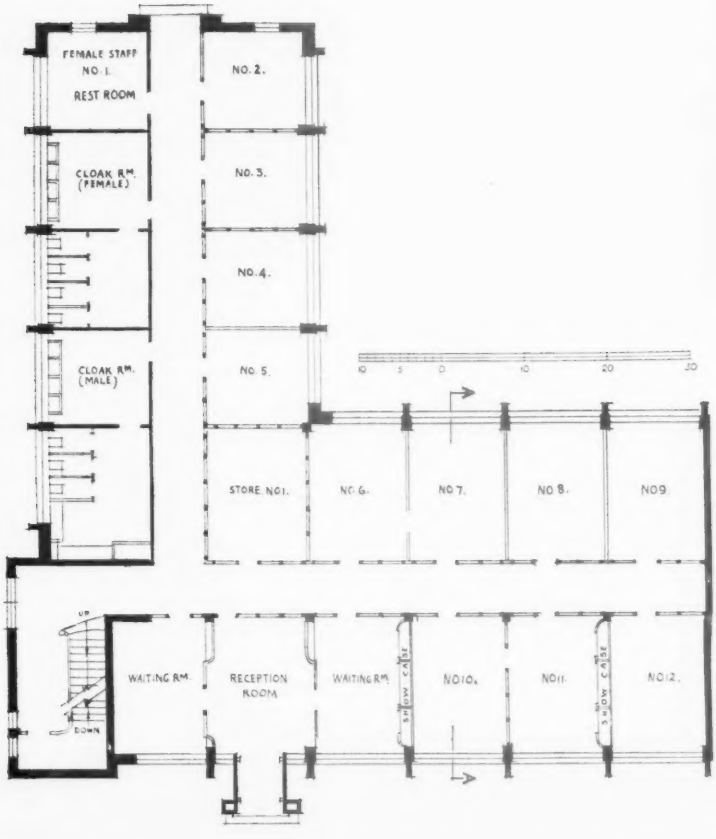
The photographs show : left, the rear entrance ; top, the main front ; centre, end view of moulding material block. On the site plan, reproduced above, the first portion of the E-shaped office building, just completed, is lettered Block 2.

NEW OFFICE BLOCK AT



PLAN—*The first portion only of the office block has been completed. When the whole block is finished it will be E-shaped in plan. The two side wings, one of which forms the first portion, are planned for various sectionalized office departments. In the centre portion will be the reception department, general office hall, telephone exchange, filing rooms, and a clock tower. A temporary reception department has been formed in the completed wing.*

The photographs show : left, the staircase ; above, reception office ; below, two executive offices. The plan is of the ground floor of the first portion.



TYSELEY, BIRMINGHAM

CONSTRUCTION—*Steel frame, with hollow reinforced concrete flat roof. If necessary an additional storey, to accommodate filing, could be incorporated in a mansard roof. The first floor is of solid slabs of kiln-dried Douglas fir, finished with polished hardwood; the soffit being covered with insulation boards, divided in 18-in. squares for acoustical purposes. The staircase is of reinforced concrete, with terrazzo treads, risers, and dado, in shades of green and cream and a bronze handrail.*

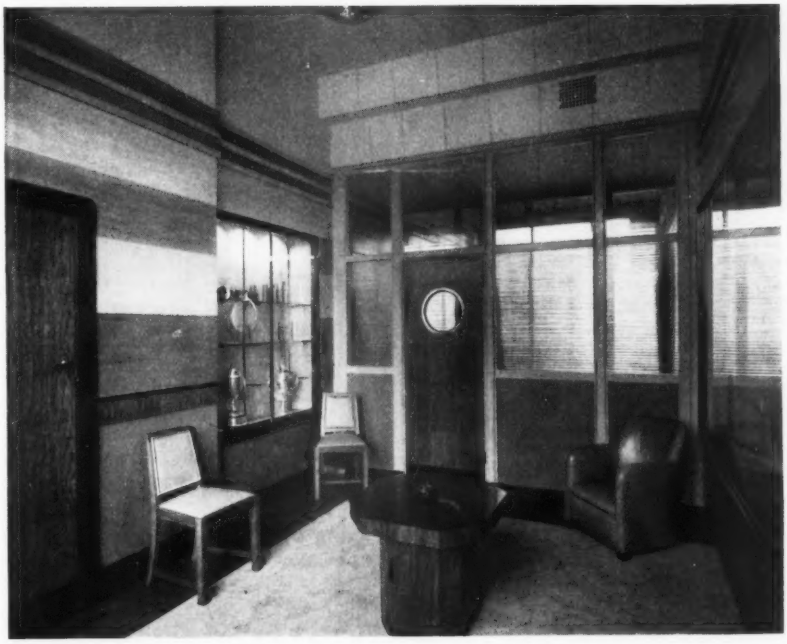
EXTERIOR TREATMENT — *The office block is faced with sandstock bricks, and has reconstructed stone dressings to harmonize with the main works buildings, and steel windows.*

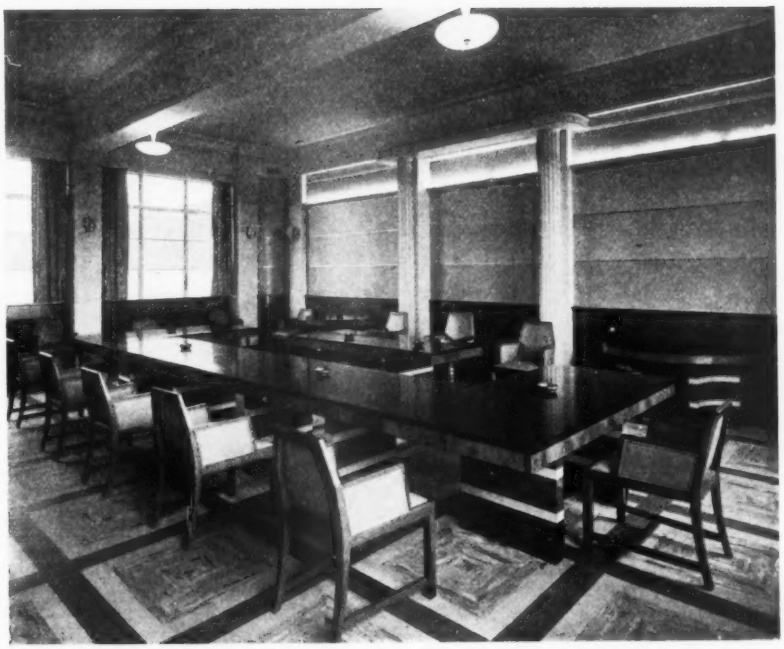
INTERIOR FINISHES — *The conference room has a special acoustic ceiling, concealed lighting, and is finished in colours of green, silver and primrose. It can be fitted with a cinema screen. Many of the doors, handles, dados, window sills, etc., and much of the furniture are of Bakelite, the product of the firm for whom the office block has been built.*

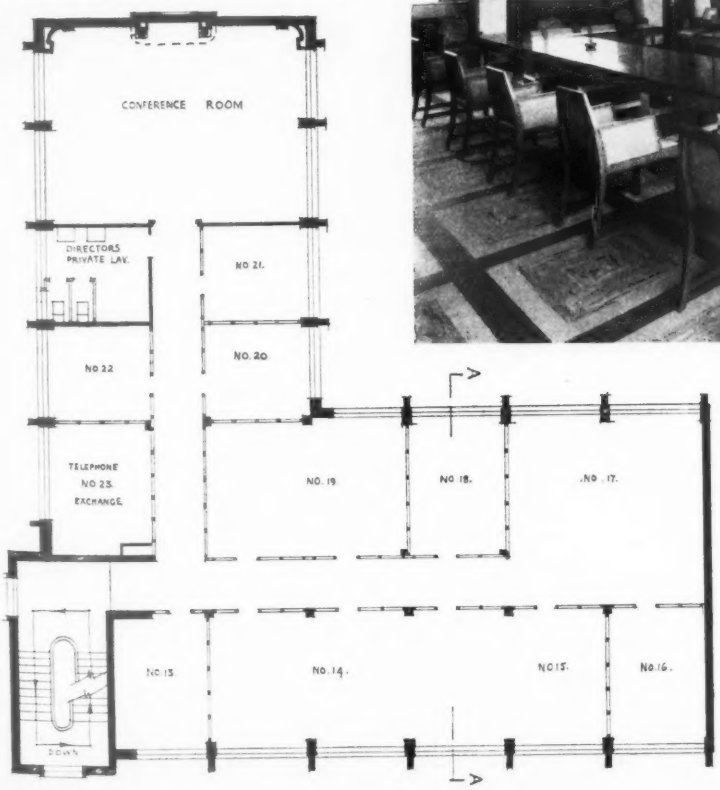
HEATING AND VENTILATING—*The air is warmed and filtered and distributed through ducts concealed above the ceilings and extracted below the floors of the internal corridors. In addition there is an auxiliary low-pressure hot-water heating system with flush-panel radiators. Heating and ventilation is under thermostatic control.*

For list of general and sub-contractors see page 162.

The photographs show : top, waiting-room ; right, the conference room. The plan is of the first floor of the first section.







DESIGNED BY GEORGE BERNARD COX (OF HARRISON AND COX)

LAW REPORTS

RESIDENTIAL OCCUPATION INJUNCTION FOR NUISANCE IN THE COUNTRY

Leeman v. *Montagu—King's Bench Division. Before Mr. Justice Greaves Lord*

THIS was an action by Mr. John Albert Leeman, of Thorpe Cottage, Thorpe, near Egham, Surrey, against Mr. Gerald Samuel Montagu, of Groom Place, Belgrave Square, S.W., and Black Lake Poultry Farm, Thorpe, which adjoins the plaintiff's property, for an injunction to restrain the defendant from carrying on his business of poultry breeder at Black Lake Farm in such a manner as to be or cause a nuisance to the plaintiff and unlawfully to interfere with plaintiff's occupation and enjoyment at Thorpe Cottage. There was also a claim for damages.

The plaintiff's case was that the reasonable enjoyment of the front rooms of Thorpe Cottage was rendered impossible, especially at night, by the crowing of cockerels, of which from 400 to 800 were kept by the defendant in an orchard adjoining Thorpe Cottage from May to October or November each year.

The defendant denied the nuisance alleged and pleaded that this was a farm in the country. He did not agree that Egham was changing into a fairly populous residential neighbourhood.

Mr. John Morris, K.C., and Mr. F. W. Beney appeared for the plaintiff, and Mr. F. K. Archer, K.C. and Mr. P. B. Morle for the defendant.

His lordship, in giving judgment, said that it was a very unfortunate case and one which undoubtedly, at times, had given rise to very considerable feeling expressed at the time, but he was glad to think that it had not left any sting, and that the parties had no idea of treating the matter in other than a fair way. Unfortunately, it was a matter about which people felt keenly. Mr. and Mrs. Leeman, having had their rest disturbed, felt acutely about it, and equally Mr. Montagu had a very keen interest in his farm, an interest quite naturally shown in the desire to produce good and effective stock. His lordship could not help thinking that by reason of that keenness Mr. Montagu had not quite taken the view which in other circumstances he would have taken and that had also been the attitude of the National Poultry Council, which had taken a rather exaggerated view of what the case meant. It did not mean the destruction of a large number of farms, nor that the decision would be of vital importance to breeders up and down the country. The present case stood purely on its own facts.

The district in question in this case was one which, while happily retaining some rural features, was by no means purely agricultural. One could not expect the National Poultry Council to be anything but enthusiastic—it would be of no use if it were not—but it ought not to let enthusiasm run away with it and make it forget that there were still several millions of people in this country who did not rear poultry and whose interests did not wholly coincide with those of poultry breeders.

The fact was that in this partly rural and very largely residential area Mr. and Mrs. Leeman had bought an attractive house and garden, quite remote from any other uses than residential purposes. His lordship, was perfectly satisfied that under the conditions which had existed the normal life to which they were entitled, free from interference, was quite impossible. Indeed, a former owner of the cottage had said that the conditions were quite intolerable. Mr. Leeman had real ground for complaint. The difficult point in the case was to know how to deal with it without doing irreparable injury to Mr. Montagu's farm. No one wanted to do that, but Mr. Montagu must recognize that if he could not carry on without causing a nuisance, there was no doubt as to the law of England. As soon as complaint was made Mr. Montagu should have seen what he could do, and whether, if necessary, he could acquire neighbouring land on which the cockerels would not be a nuisance. It was difficult to fix an actual area, but his lordship thought on the whole, that the better course was to grant an injunction in the terms asked for.

His lordship added that he would not regard it as a breach of that injunction, at any rate without much more definite evidence, if Mr. Montagu were to use the land up to the top end of the orchard by normal breeding pens, populated in the ordinary way. But in so far as cockerels had been congregated and allowed their freedom, he would regard it as a breach of the injunction if cockerels were kept in that way north of the boundary of a certain plot on the Ordnance Map. He would suspend the operation of the injunction in its complete form for one month, but the intervening period must be actively employed in reducing a proved nuisance, even if it resulted in a reduction of the period of rest which could be given to the plot he had alluded to. The injunction must be obeyed, not only in the letter, but with a certain amount of determination.

He hoped Mr. Montagu would rid his mind of the idea that this was a matter which he was challenging on behalf of thousands of poultry farmers. Poultry farming would be carried on just as well, and possibly better, after this case.

He entered judgment for Mr. Leeman for the injunction asked for with costs and he gave him 20s. nominal damages.

SUB-CONTRACTOR'S ACTION AGAINST PUBLIC WORKS CONTRACTOR

Chandler Bros., Ltd., v. *Boswell.—Official Referee's Court. Before Mr. C. M. Pitman, K.C.*

THE Official Referee gave judgment on a preliminary point raised in the action, which was brought by Messrs. Chandler Bros., Ltd., contractors, of Cross Street, Manchester, against Mr. M. A. Boswell, public works contractor, of School Street, Wolverhampton, for alleged breach of contract in connection with the making of the Penmaenbach Tunnel on the Chester-Holyhead Road.

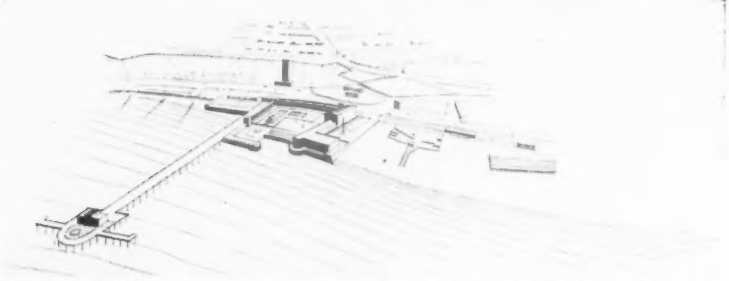
Messrs. Chandler Bros. were the sub-contractors for the work of excavation, and they alleged that the defendant, Mr. Boswell, the head contractor, had wrongfully determined the sub-contract, and they (plaintiffs) claimed £6,594 for work done and the return of plant valued at £1,500.

The defendant pleaded that he was justified in terminating the contract and counter-claimed for £3,307 in respect of plantiffs' alleged breach of contract.

The preliminary question the Official Referee was asked to decide was whether the contract was wrongfully determined by the defendant, and secondly whether the plaintiffs were entitled to sue him upon a *quantum meruit*.

The Official Referee, in the course of a considered judgment, said that the work of excavation commenced in October, 1930, and continued until July, 1932, when it was terminated by the defendant after over £15,000 had been paid on account. The defendant took possession of the site and plant and completed the work himself. It was, said the Official Referee, admitted that after a receiver for the debenture holders of the plaintiff company was appointed, that the company did not carry on the work with expedition, and in these circumstances the defendant urged he was entitled to terminate the contract. He (the Referee) was not of that opinion, and he held that the contract was wrongfully determined by the defendant and that the plaintiffs were entitled to sue on *quantum meruit*.

It was intimated by counsel for the defendant that there was the possibility of the case being taken to the Court of Appeal.



From the exhibition of students' work, A.A. School of Architecture: Foreshore Development, Folkestone. By E. H. Lockton. (Thesis work.)

IN PARLIAMENT

[BY OUR SPECIAL REPRESENTATIVE]

London Wall

Major Carver asked the Minister of Pensions, as representing the First Commissioner of Works, whether, in view of the public interest in the recent opening out and excavations of London Wall by the Tower Hill improvement scheme, he would consider having an authoritative survey of the remaining portions not already done

of this historic relic in order that there might be no further destruction of it; and also whether the Wall could be taken over as an ancient monument.

Mr. Hudson said that the Office of Works had recently made a survey of the remains of that part of London Wall which ran across Tower Hill, and the results of an authoritative survey of the whole wall had been recorded in the volume on Roman London published by the Royal Commission on Historical Monuments in England. Suitable portions of London Wall were being considered for scheduling under the Ancient Monuments Acts, and the First Commissioner hoped that his Department would be able to assist in the preservation of part of the Wall on Tower Hill as an ancient monument.

Unemployment Assistance Board's Report

Mr. Ellis Smith asked the Minister of Health if his attention had been drawn to pages 139 and 140, under the heading Housing, of the Report of the Unemployment Assistance Board; and, if so, did he propose to take any action.

Mr. Shakespeare said that the Minister's attention had been drawn to the section of the Unemployment Assistance Board's Report to which the hon. member referred. The area in question was one in which housing conditions had been for long unsatisfactory. As regarded slum clearance, the erection of 2,847 new houses to replace houses unfit for human habitation had been approved, and good progress with the work was being made. As regarded overcrowding, the necessary surveys had only recently been completed, and local authorities were now considering the measures required to remedy it in their districts. Local authorities were required to submit to the Minister their proposals for the provision of new houses by August 1 next.

Manufacturers' Items

The annual report of Messrs. Drytone Joinery, recently issued, shows continued progress. The factory has been extended considerably and the potential output has been doubled. The offices and showrooms have been moved from 65 High Street, N.W.1, into the main building at Arlington Road, where extensive showrooms enable the quality of the company's joinery to be readily demonstrated. Among the more interesting contracts reported are the following: Memorial Sanatorium, Hertford Hill (flush doors); Rugeley Grammar School (panelling to entrance hall); Hilsee Swimming Pool (doors faced with Masonite); Royal Cripples Hospital, Northfield (flush doors); Withington Hospital, Manchester (flush doors); The Jolly Fisherman, Greatstone (panelling, fittings, doors and furniture); Stoneleigh Hotel, Ewell (panelling, doors, screens and fittings); Royal Oxford Hotel, Oxford (doors); and Freemasons Arms, Wood Green (panelling, doors and fittings).

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Following is a list of new contracts recently obtained by the Trussed Concrete Steel Co., Ltd.—Felixstowe: Station Hotel. Reconstruction. Architects: Riley and Glanfield. Contractor: George A. Kenny. Reinforced Concrete Engineers: The Trussed Concrete Steel Co., Ltd.—Liverpool: Gerard Street Tenements. Block "B." Director of Housing: L. H. Keay, F.R.I.B.A. Reinforced Concrete Engineers: The Trussed Concrete Steel Co., Ltd.—London: Olympia Garage. All reinforced concrete building, Maclise Road, Kensington. Architect: J. Emberton, F.R.I.B.A. General Contractors: John Mowlem and Son, Ltd. Engineers: The Trussed Concrete Steel Co., Ltd.—Liverpool: Hill Street and Caryl Street Flats. Director of Housing: L. H. Keay, F.R.I.B.A. Reinforced Concrete Engineers: The Trussed Concrete Steel Co., Ltd.—London: Block of Flats at 1-9 Tait Street, Stepney. Architect: J. Emberton, F.R.I.B.A. General Contractors: J. and R. Rooff, Ltd. Reinforced Concrete Engineers for foundations and floors: The Trussed Concrete Steel Co., Ltd.—Magherafelt: Reinforced Concrete Reservoirs for the Magherafelt Rural District Council. Engineer: J. E. Croasdaile, A.M.I.C.E. Reinforced Concrete Engineers: The Trussed Concrete Steel Co., Ltd.—Cardiff: Reconstruction of Messrs. Cross Bros. premises in reinforced concrete. Architects: Willmott and Kenshole. General Contractors: F. Holcombe and Sons, Ltd., Cardiff. Reinforced Concrete Engineers: The Trussed Concrete Steel Co., Ltd.

Rowley's new folding dining-table and seat fitment, which when closed, is 6 ft. 6 ins. high, 4 ft. 9 ins. wide, and 10 ins. deep. The fitment may be obtained either finished in hardwood or in colours on softwood.

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Airports and Aircraft Factories is the title of an illustrated brochure recently issued by Messrs. Boulton and Paul, Ltd., structural engineers, of London and Norwich. In the foreword it is pointed out that "the adaptability of the firm's steelwork is illustrated by three recent contracts; the full-scale wind tunnel at Farnborough, which was built for the Government; the Saunders-Roe erecting shop at Southampton and the Hawker Aircraft Company's large new hangar at Brooklands aerodrome. The Farnborough wind tunnel is one of the most advanced examples of structural steelwork in the world, and the Saunders-Roe and Hawker hangars are examples of buildings to suit special ground conditions. One is a waterside hangar of 50,400 sq. ft., and the other, which is 550 ft. by 80 ft., fits into the space available close to the inside of the Brooklands motor racing track. In the first, 13½ miles of steelwork was used, and in the second, 12½ miles." Copies of the brochure are obtainable from the firm, free of charge.

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Messrs. Samuel Elliott and Sons (Reading), Ltd., have removed their London offices to British Industries House, Marble Arch, W.1. Telephone No.: Mayfair 4941.

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Following is a list of contracts for Helicon hollow tile fire-resisting floors recently awarded to the Flooring Department of the Helical Bar and Engineering Co., Ltd.: Royal Berkshire Hospital, Reading (Collcutt and Hamp, F/F.R.I.B.A.); Ladies' College, Cheltenham (Collcutt and Hamp, F/F.R.I.B.A.); G.W.R. Hostel, High Street, Swansea (G.W.R., Architect's Dept.); Masonic Hall, Leicester (Allcock and Grieves, F.R.I.B.A.); Post Office, Stamford (H.M.O.W.); Flats, Mansfield Court, Nottingham (C. F. W. Haseldine, F.R.I.B.A.); extension to Nurses' Home, Coventry and Warwickshire Hospital (Armstrong and Gardiner, F/A.R.I.B.A.); Children's Holiday Home, Norland, Halifax (C. F. L. Horsfall and Son, L/L.R.I.B.A.); King's College Hospital, Denmark Hill, S.E. (Collcutt and Hamp, F/F.R.I.B.A.); Flats, 2-9 Sussex Place, Paddington, W.2 (M. Rosenauer, L.R.I.B.A.); Peter Jones, Rebuilding, Sloane Square, Kensington, S.W. (Slater and Moberly, M.A., F.R.I.B.A.); shops and

flats, 20-30 Gt. Titchfield Street, W.1 (Waite and Waite, F/F.A.I.).

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An illustrated brochure devoted to the Lochaber Hydro-Electric Power Undertaking, Inverness-shire, has just been issued by the British Aluminium Co., Ltd., of Adelaide House, E.C.4. Copies are obtainable, free of charge, on application to the firm.

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Mr. H. Hepworth Thompson has resigned from the boards of the English and French Holophane Companies.

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The London office of the United Steel Companies, Ltd., has been moved to 8 & 10 Grosvenor Gardens, Victoria, London, S.W.1. Telephone : Sloane 4833. The office represents the following branches and associate companies : Steel, Peech & Tozer, Sheffield; Samuel Fox & Co., Ltd., Sheffield; United Strip and Bar Mills, Sheffield; Appleby-Frodingham Steel Co., Ltd., Scunthorpe; Daniel Doncaster and Sons, Ltd., Sheffield; Workington Iron and Steel Co., Workington; the Rothervale Collieries, Treeton; United Coke and Chemicals Co., Ltd., Workington; Thos. Butlin & Co., Branch, Wellingborough.

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The formation is announced of Lead Industries Development Council. This marks a further stage in the progressive co-operation which has been a feature of recent years between the numerous manufacturers of lead products such as white lead, red lead, sheet lead and lead pipes and the lead mining and smelting organizations operating within the Empire. The ever-increasing uses of lead have made it desirable that an organization should be set up which is in a position to give authoritative information on the subject and to promote new and improved methods of using lead and its products. These will be the principal functions of the Council, which will absorb and co-ordinate the separate organizations hitherto maintained in the United Kingdom for similar purposes by the White Lead Manufacturers and the Sheet Lead and Lead Pipe Manufacturers. The new body is sponsored by the whole of the lead products manufacturing industry as well as by the Empire lead-mining and smelting companies.

The members of the Lead Industries Development Council include representatives of the lead manufacturers and of the Empire mining and smelting interests, and the chairman is Mr. H. S. Tasker, managing director of Associated Lead Manufacturers, Ltd. Mr. Roger Hodgson has been appointed Secretary to the Council, whose address will be Rex House, 38 King William Street, London, E.C.4.

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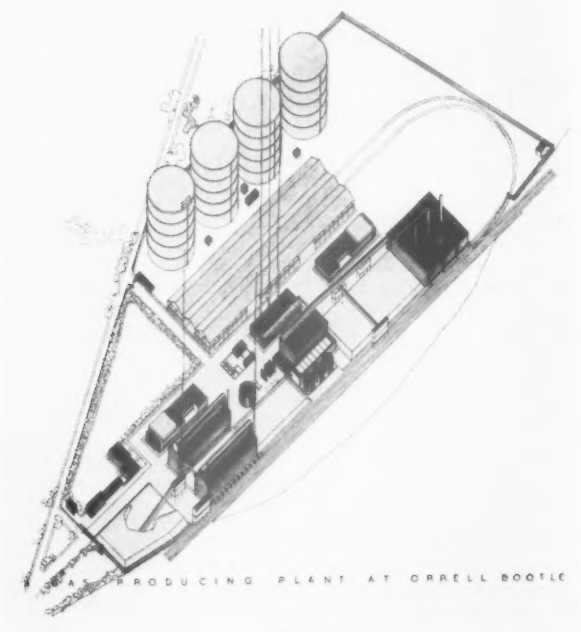
The manufacturers of Glasso cellulose, oil and synthetic finishes, Messrs. British Glasurit, Ltd., have decided to incorporate their trade-mark Glasso in the company's name. Consequently this has been altered to Glasso Paint Products, Ltd., and the new name will be in general use as from August 1. Apart from the alteration in name, no change has taken place in the company's constitution or the staff. A few months ago the company moved into their new factory at Perivale, which is equipped with the latest plant for the manufacture of all types of paint—more especially for synthetic and cellulose finishes for the decorating trade, the motor trade and industrial users. Their full address is as follows : Glasso Paint Products, Ltd., Wadsworth Road, Perivale, Greenford, Middlesex.



From the recent exhibition of students' work, Liverpool School of Architecture : Scheme for a Gas Producing Plant at Orrell, Bootle. By H. Woodley. (Fifth Year Thesis Design.)

THE BUILDINGS ILLUSTRATED

SURBITON HOSPITAL (pages 143-148). The general contractors were Thorogood Bros. and Sons, and principal sub-contractors and suppliers included :—Crittall Manufacturing Co., Ltd., steel windows and bed screens; Caxton Floors, Ltd., hollow tile floors, roofs, etc.; Limmer and Trinidad Lake Asphalt Co., Ltd., asphalt roofing and pavings; Proctor and Lavender, facing bricks—Bedford Greys; London Brick Co., Ltd., Phorpres Flettons; F. J. Barnes, Ltd., Portland stone copings; Art Pavements and Decorations, Ltd., terrazzo work and marble fireplaces; Fenning & Co., Ltd., marble work to main entrance door; W. A. Telling, Ltd., plastering; C. Clifford, Ltd., glazing; Pilkington Bros., Ltd., glass; Acme Flooring and Paving Co., Ltd., wood block flooring; Korkoid Decorative Floors, Ltd., Korkoid and lino flooring; Martin Van Straaten & Co., Ltd., white glazed wall tiling; Paripan, Ltd., paint; James Slater & Co., Ltd., heating, hot water and ventilation, automatic stokers (Colostat); Birmingham Guild, Ltd., railings to balconies, bronze access covers to heating ducts; Troughton and Young, Ltd., electrical installation and lighting fittings, automatic emergency lighting set; W. J. Furse & Co., Ltd., lightning conductor; J. D. Gatley and Son, plumbing; Esse Cooker Co., "Minor," "Premier," and "Major" cookers; Doulton & Co., Ltd., sanitary and drainage fittings; Luxfer, Ltd., saucer dome lights; J. P. White and Sons, Ltd., flush doors, generally and lead-lined, and sliding doors in X-ray department, light-tight hatch, nurses' wardrobes; Baird and Tatlock (London), Ltd., X-ray viewing screens in operating theatre; Wandsworth and District Gas Co., gas pipework, incinerator, Portcullis gas fires; P. C. Henderson, Ltd., sliding door track; J. L. Emms, lead r.w. goods.

BAKELITE WORKS, BIRMINGHAM (pages 157-160). The general contractors were H. J. Whittall and Son, and the principal sub-contractors and suppliers included :—Aeronautical and Panel Plywood Co., Ltd., and Saunders-Roe, Ltd., flush doors; Walker and Wood, Ltd., Bakelite door furniture; Bousfields, Ltd., and W. H. Foster and Sons, Ltd., laminated bakelite panels; A. Edmonds & Co., Ltd., showcases, bakelite dadoes; Restall, Ltd., furniture; General Electric Co., Ltd., electric light fittings; Luxfer, Ltd., steel screens; Hollis Bros. & Co., Ltd., hardwood floors; Henry Hope and Sons, Ltd., steel windows, gearing, etc.; Couzens and Akers, Ltd., auxiliary hot water heating and domestic hot water supply; J. Ellis and Sons, Ltd., reconstructed stone; Carrier-Ross Engineering Co., Ltd., conditioned air scheme; E. C. and J. Keay, Ltd., constructional steelwork; Richards Tiles, Ltd., glazed wall and floor tiling; Diespeker & Co., Ltd., terrazzo staircase; J. S. Wright & Co., internal plumbing; Doulton & Co., Ltd., sanitary fittings; E. Hill and Sons, electric lighting, power and clocks installation; Synchronome Co., Ltd., electric clocks; Ed. Lloyd Wallboards, Ltd., ½-in. insulating board to first-floor ceilings; Tentest Fibre Board Co., Ltd., flat roof and conference room ceilings.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICT (15 Miles Radius)

BRENTFORD. *School and Clinic.* The Brentford and Chiswick Education Committee is to seek sanction to erect a school on the Strand-on-the-Green site at an estimated cost of £24,930. It is also proposed to seek consent to erect a general clinic and health centre on the Rothschild School site at an estimated cost of £10,210.

CITY OF LONDON. *Extensions.* The Corporation has approved plans by Mr. H. Austin Hall for extensions at the City of London School and the construction of a swimming bath, at a revised cost of £44,000.

EALING. *Bakery, etc.* Messrs. H. Wakeford and Sons, 184 Clapham Road, S.W.9, have prepared plans for Messrs. H. A. Job, Ltd., for the provision of a bakehouse and dairy at The Fairway.

EALING. *Flats.* The Council has approved plans by Mr. S. H. West, 8 Central Chambers, The Broadway, W.5, for the erection of 80 flats proposed to be erected at Haven Green for Mr. F. Byford.

EALING. *Shops and Flats.* Nine shops with 10 flats over are to be erected at The Fairway, by Messrs. Warwick Estates, Ltd., from plans prepared by Messrs. Marshall and Tweedy, 9 New Cavendish Street, Portland Place, W.1.

FULHAM. *Flats.* The B.C. has approved plans by the borough engineer for the erection of 108 flats in Stephendale Road at a cost of £68,275.

GREENFORD. *Shops.* The Architects' Department of Messrs. J. Lyons & Co., Ltd., Cadby Hall, has submitted plans of 35 shop plots in Greenford Road.

GREENFORD. *Shops and Flats.* Mr. W. A. Ross, "The Hatch," Friary Road, North Finchley, N.12, has prepared plans for 23 shops and 23 flats at Hanger Lane and Queens Drive.

GREENFORD. *Cinema, etc.* The T.C. has approved a layout plan for the proposed erection of 11 shops with maisonettes and cinema theatre at Greenford Road. The architects are Messrs. Dixon and Braddock, 33 Bedford Place, W.C.1.

HACKNEY. *Rehousing.* The B.C. is to acquire sites at Springfield Road and Warwick Road to provide rehousing accommodation for 4,156 persons.

HACKNEY. *Flats.* The B.C. has asked Messrs. Josephs, architects, to prepare a revised scheme for the erection of 120 flats on a site in Cazenove Road.

HACKNEY. *Tenements.* The B.C. has asked Messrs. Joseph, architects, to prepare plans for tenements on the Shacklewell Lane site, at an estimated cost of £32,800.

ISLINGTON. *Day Nursery.* The B.C. has approved plans by Mr. E. C. P. Monson for the erection of a day nursery and sun clinic in Schofield Road, Upper Holloway, at a cost of £11,615.

ISLINGTON. *Houses.* The B.C. has appointed Mr. E. C. P. Monson as architect to prepare rehousing schemes on various clearance areas.

PADDINGTON. *Extensions.* The B.C. is to prepare plans for extensions at the town hall.

PADDINGTON. *Extension.* The B.C. is to consider the extension of the Porchester Road library and the erection of a branch library at Maida Vale.

PADDINGTON. *Shops, etc.* Plans passed by the B.C.: Shops, flats, restaurant, news cinema and underground garage, Edgware Road, Cambridge Street and Connaught Street, for Marcus Investment (Edgware Road), Ltd.; canopy, Coliseum Picture Theatre, Harrow Road, for Mr. F. C. Mitchell; houses, site of 4-12 Southwick Place and 2-8 Southwick Crescent, for Mr. Septimus Warwick; substation, Harrow Road, for London Passenger Transport Board.

PERIVALE. *Factories.* Messrs. P. Bilton (Properties), Ltd., 113 Park Street, W.1, have prepared plans for the erection of the following factories: Messrs. Wico Electric Co.; Messrs. C. A. Greiner and Son; and Messrs. L. and R., Ltd., all at Wadsworth Road; and one for Messrs. Kiwi Proprietary, Ltd., at Brumwill Road.

PUTNEY. *Flats.* The B.C. has approved amended plans by Messrs. R. Costain, Ltd., for a block of flats to be erected at "Kings Keep," Putney Hill.

WIMBLEDON. *College.* The Surrey Education Committee is to obtain a site for the erection of new premises for the Wimbledon technical college and art school.

WOOD GREEN. *Factory, etc.* Plans passed by the Corporation: Factory, alterations, Myddleton Road, for Mr. G. H. Hartman; model bakery, White Hart Lane, for Mr. C. E. Owen Ward; extensions, 17-9 High Road, for Mr. J. Robinson; office extensions, Lordship Lane, for Tottenham Gas Co.; two shops and offices, Brownlow Road, for Messrs. Dixon and Braddock.

MIDLAND COUNTIES

BURSLEM AND STOKE. *Clinics.* The Stoke-on-Trent Corporation has approved plans for the erection of clinics at Stoke and Burslem.

FENTON. *Houses.* Mr. A. Bates is to erect 134 houses in Regent Road and Whieldon Road, Fenton, Staffs.

HANLEY. *Houses.* Mr. A. P. Lovatt, architect, is to erect 73 houses for Mr. Jackson in Birches Head Road, Hanley.

MEIR. *Houses.* Mr. F. Gibson is to erect 380 houses on an estate adjoining the golf course at Meir, Staffs.

STOKE-ON-TRENT. *Housing.* The Corporation is negotiating for 18 acres at Furlong Road, Tunstall, for a housing scheme.

STOKE-ON-TRENT. *Extensions.* The Board of Control has approved plans by the Stoke-on-Trent Corporation for extensions at the mental colony.

STOKE-ON-TRENT. *Houses.* The Corporation has agreed to give favourable consideration to a scheme submitted by Mr. A. Glyn Sherwin, architect, on behalf of Messrs. G. and J. Seddon, Ltd., to erect 62 houses at Sandon Road, Meir, at a cost of £362 per house.

STOKE-ON-TRENT. *Elementary School.* The Stoke-on-Trent Education Committee has obtained a site at Chell Heath, Tunstall, for the erection of an elementary school.

TUNSTALL. *Houses.* The Stoke-on-Trent Corporation has now arranged terms with Mr. T. B. Cartlidge for the erection of 1,494 houses at Chell Heath, Tunstall, at a cost of £303 per house, and roads and sewers at £55 per house.

SOUTHERN COUNTIES

BOURNEMOUTH. *Flats.* San Remo Estates Ltd., are to erect a block of flats, with underground garages, in Sea Road and Michaelgrove Road, Bournemouth.

BOURNEMOUTH. *Bungalows, etc.* Plans passed by the Corporation: Six bungalows, Hawden Road, for Mr. W. J. Clapcott; alterations, 662 Christchurch Road, for Messrs. Kendal and Sons, Ltd.; alterations, St. Zita and Grassendale, St. Catherine's Road, for Father Bellanti; bank alterations, Wimborne Road, for Lloyds Bank, Ltd.; additions, Southcliff Hotel, West Cliff Promenade, for Col. Duncan; alterations and additions, Ferncliffe, Grove Road, for Ritz Hotel Co., Ltd.; additions, Gorsecliff School, Boscombe Spa Road, for Mr. J. E. Corby; two houses, Canford Road, for Mr. W. H. Willoughby; 10 houses, Beverley Gardens, for Mr. P. G. Hollister; two blocks of flats, Surrey Road, for Bournemouth Flat Construction Co.; two houses, Ensbury Avenue, for Mr. F. F. Hawkins; two houses, Huntley Road, for Mr. A. Bedford; two houses, Huntsfield Road, for Mr. R. Troke; alterations, Boys' Home, Talbot Avenue, for Waifs and Strays Society; eight shops, and flats, Castle Lane, for Messrs. A. C. Barnes & Co.; four flats, Malvern Road, for Mr. S. G. Ward; two bungalows, Littlecroft Avenue, for Mr. C. W. Newton; 32 flats, Derby Road, for Mr. J. C. Moyle; two houses, West Way, for Mr. Knight; two houses, Redbreast Road, for Mr. F. B. Wright; six houses, Castle Lane, for Eventide Homes Committee; two shops, Kinson Road, for Mr. W. H. Budden; seven houses, Seafield Road, for Messrs. T. Sutcliffe and Son; two bungalows, Kinson Park Road, for Messrs. Lewis Bros.

PORTSMOUTH. *Houses, etc.* The Corporation has approved plans for the development of the Drayton Manor estate, where 429 houses and six shops are to be erected.

SOUTH-WESTERN COUNTIES

TORQUAY. *Alterations.* The Corporation is to prepare a scheme for alterations and improvements at the pavilion, at an estimated cost of £20,000.

TORQUAY. *Schools.* The Torquay Education Committee has approved revised plans by Mr. B. Widdows for the erection of schools at Audley Park, at a cost of £64,633.

TORQUAY. *Houses, etc.* Plans passed by the Corporation: Two houses, Thorne Park Road, for Messrs. Midgley and Hardy; two houses, Langford Crescent, for Mr. F. T. Stoneman; estate development, Marldon Road for Premier Trust Co., Ltd.; five bungalows, Marldon Road, for Mr. J. F. Maule; two houses, Braddons Hill Road, for Mr. W. Turner; two flats, Castle Road, for Mr. J. A. Allwood; four houses, Fore Street, for Messrs. S. Hawkins and Sons; six houses, Barton Road, for Mr. R. E. Narracott; 12 houses, Sherwell Valley Road, for Chelston Building Co.

WEYMOUTH. *Development.* The Corporation has adopted a scheme prepared by Messrs. Deane and White for the reclamation and development of an area of the Radiople lake, at a cost of £40,000.

WEYMOUTH. *Houses, etc.* Plans passed by the Corporation: Two houses, Manor Farm estate, for Messrs. F. Selby and Son; two houses, Knightsdale Road, for Mr. J. Burt; two houses, St. David's Road, for Mr. K. Openshaw; estate development, Links Road, for Mr. R. C. Andrews; six houses, Doncaster Road, for Mr. G. E. Bartlett; two houses, East Wyld estate, for Mr. F. Parker; two houses, Chickerell Road, for Messrs. Hayward Bros.; shop extensions, Buxton Road, for Mr. S. Tewson; rebuilding, 8 Westham Road, for Mr. E. Foster.

WALES

SWANSEA. *Houses.* The Corporation has approved a scheme for the erection of 214 houses on the Bonymaen estate.

SWANSEA. *Houses and Shops.* The Corporation has approved a scheme for the erection of 270 houses and eight shops on the Townhill estate.

SWANSEA. *Community Centre.* The Corporation has approved plans for the erection of a community centre and library on the Townhill housing estate, at a cost of £8,000.

SWANSEA. *Houses.* Plans passed by the Corporation: Four houses, Chemical Road, for Messrs. Walters and Johns; works extensions, Western Street, for Messrs. Wm. Hancock & Co., Ltd.; two houses, Pentregethin Road, for Mr. Gordon Davey; additions, St. Peter's Church, Cockett, for church council; additions, Bethel Chapel, Carnglas Road, for trustees; church hall, Gower Road, for Sketty church trustees; 22 houses, Sketty Park estate, for Mr. Jenkin Williams; alterations, 69 St. Helens Road, for Messrs. J. H. Dewhurst, Ltd.; 12 houses, off Siloh Road, for Mr. J. Mackrill; two houses, Crown Street, for Mr. J. Harris; alterations, Smiths Arms P.H., Neath Road, for Messrs. Worthington & Co., Ltd.; four houses, Pentremawr Road for Messrs. Owen and Nicholas.

RATES OF WAGES

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

			I s. d.	II s. d.
A_1	ABERDARE ...	S. Wales & M.	1 5½	1 1½
A	Aberdeen ...	Scotland	1 6½	1 2
A_1	Abergavenny ...	S. Wales & M.	1 6	1 1½
A_2	Abingdon ...	S. Counties	1 5	1 0½
A	Accrington ...	N.W. Counties	1 6½	1 2
A_2	Addlestone ...	S. Counties	1 5	1 0½
A	Adlington ...	N.W. Counties	1 6½	1 2
A	Airdrie ...	Scotland	*1 6½	1 2
C	Aldeburgh ...	E. Counties	1 2½	11
A	Altrincham ...	N.W. Counties	1 6½	1 2
B_2	Appleby ...	N.W. Counties	1 3	11½
A	Ashton-under-Lyne	N.W. Counties	1 6½	1 2
B_1	Aylesbury ...	S. Counties	1 4	1 0
B_1	BANBURY ...	S. Counties	1 4	1 0
B_1	Bangor ...	N.W. Counties	1 4	1 0
A_2	Barnard Castle	N.E. Coast	1 5	1 0½
A	Barnsley ...	Yorkshire	1 6½	1 2
B	Barnstaple ...	S.W. Counties	1 4½	1 0½
A	Barrow ...	N.W. Counties	1 6½	1 2
A	Barry	S. Wales & M.	1 6½	1 2
B_1	Basingstoke ...	S.W. Counties	1 4	1 0
A_2	Bath	S.W. Counties	1 5½	1 1½
A	Batley ...	Yorkshire	1 6½	1 2
A_2	Bedford ...	E. Counties	1 5½	1 1½
A_2	Berwick-on-Tweed	N.E. Coast	1 5½	1 1½
A_2	Bewdley ...	Mid. Counties	1 5½	1 1½
B_2	Bicester ...	S. Counties	1 3	11½
	Birkenhead ...	N.W. Counties	*1 7½	1 2½
A	Birmingham ...	Mid. Counties	1 6½	1 2
A_1	Bishop Auckland	N.E. Coast	1 6	1 1½
A	Blackburn ...	N.W. Counties	1 6½	1 2
A	Blackpool ...	N.W. Counties	1 6½	1 2
A	Blyth	N.E. Coast	1 6½	1 2
B_1	Bognor[†] ...	S. Counties	1 4	1 0
A	Bolton ...	N.W. Counties	1 6½	1 2
A_2	Boston ...	Mid. Counties	1 5	1 0½
A_2	Bournemouth...	S. Counties	1 5½	1 1½
B_2	Bovey Tracey	S.W. Counties	1 3½	11½
A	Bradford ...	Yorkshire	1 6½	1 2
A_1	Brentwood ...	E. Counties	1 6	1 1½
A	Bridgend ...	S. Wales & M.	1 6½	1 2
B	Bridgwater ...	S.W. Counties	1 4½	1 0½
A_1	Bridlington ...	Yorkshire	1 6	1 1½
A	Brighouse ...	Yorkshire	1 6½	1 2
A_2	Brighton ...	S. Counties	1 5½	1 1½
A	Bristol ...	S.W. Counties	1 6½	1 2
B	Brixham ...	S.W. Counties	1 3½	11½
A	Bromsgrove ...	Mid. Counties	1 5½	1 1½
B	Bromyard ...	Mid. Counties	1 3	11½
A	Burnley ...	N.W. Counties	1 6½	1 2
A	Bursiem ...	Mid. Counties	1 6½	1 2
A	Burton-on-Trent	Mid. Counties	1 6½	1 2
A	Bury	N.W. Counties	1 6½	1 2
A	Buxton ...	N.W. Counties	1 6	1 1½
A_1	CAMBRIDGE ...	E. Counties	1 6	1 1½
B_1	Canterbury ...	S. Counties	1 4	1 0
A	Cardiff ...	S. Wales & M.	1 6½	1 2
A	Carlisle ...	N.W. Counties	1 6½	1 2
B	Carmarthen ...	S. Wales & M.	1 4½	1 0½
B	Carnarvon ...	N.W. Counties	1 4½	1 0½
A	Carnforth ...	N.W. Counties	1 6½	1 2
A	Castleford ...	Yorkshire	1 6½	1 2
A_2	Chatham ...	S. Counties	1 5	1 0½
A	Chelmsford ...	E. Counties	1 5	1 0½
A	Cheltenham ...	S.W. Counties	1 5	1 0½
A	Chester ...	N.W. Counties	1 6½	1 2
A	Chesterfield ...	Mid. Counties	1 6½	1 2
B_1	Chichester ...	S. Counties	1 4	1 0
A	Chorley ...	N.W. Counties	1 6½	1 2
B_1	Cirencester ...	S. Counties	1 4	1 0
A	Clitheroe ...	N.W. Counties	1 6½	1 2
A	Clydebank ...	Scotland	1 6½	1 2
A	Coalville ...	Mid. Counties	1 6½	1 2
A_2	Colchester ...	E. Counties	1 5½	1 1½
A	Colne	N.W. Counties	1 6	1 1½
A_2	Colwyn Bay ...	N.W. Counties	1 5½	1 1½
A_1	Consett ...	N.E. Coast	1 6	1 1½
A_2	Conway ...	N.W. Counties	1 5½	1 1½
A	Coventry ...	Mid. Counties	1 6½	1 2
A_2	Crewe	N.W. Counties	1 5½	1 1½
A	Cumberland ...	N.W. Counties	1 5	1 0½
A	DARLINGTON ...	N.E. Coast	1 6½	1 2
A	Darwen ...	N.W. Counties	1 6½	1 2
B	Deal	S. Counties	1 4	1 0
A_2	Denbigh ...	N.W. Counties	1 5	1 0½
A	Derby	Mid. Counties	1 6½	1 2
A	Dewsbury ...	Yorkshire	1 6½	1 2
B	Didcot ...	S. Counties	1 4½	1 0½
A	Doncaster ...	Yorkshire	1 6½	1 2
B_1	Dorchester ...	S.W. Counties	1 4	1 0
A	Driffield ...	Yorkshire	1 5	1 0½
A_2	Droitwich ...	Mid. Counties	1 5½	1 1½
A	Dudley ...	Mid. Counties	1 6½	1 2
A_2	Dumfries ...	Scotland	1 6	1 1½
A	Dundee ...	Scotland	1 6½	1 2
A	Durham ...	N.E. Coast	1 6½	1 2
A_2	EASTBOURNE	S. Counties	1 5½	1 1½
A_1	Ebbw Vale ...	S. Wales & M.	1 6	1 1½
A	Edinburgh ...	Scotland	1 6½	1 2
A_1	Glamorgan-shire, Rhondda Valley District ...	S. Wales & M.	1 6	1 1½
A_2	Exeter ...	S.W. Counties	*1 5½	1 1½
B	Exmouth ...	S.W. Counties	1 4½	1 0½
A_2	FELIXSTOWE	E. Counties	1 5	1 0½
A	Filey	Yorkshire	1 5	1 0½
A	Fleetwood ...	N.W. Counties	1 6½	1 2
B_1	Folkestone ...	S. Counties	1 4	1 0
A	Frodsham ...	N.W. Counties	1 6½	1 2
B_2	Frome ...	S.W. Counties	1 3½	11½
A	GATESHEAD	N.E. Coast	1 6½	1 2
B	Gillingham ...	S. Counties	1 4½	1 0½
A	Glasgow ...	Scotland	1 7	1 2½
A_2	Gloucester ...	S.W. Counties	1 5½	1 1½
A_2	Goole ...	Yorkshire	1 5½	1 1½
A_2	Gosport ...	S. Counties	1 5½	1 1½
A_2	Grantham ...	Mid. Counties	1 5	1 0½
A_1	Gravesend ...	S. Counties	1 6	1 1½
A	Greenock ...	Scotland	*1 6½	1 2
A	Grimsby ...	Mid. Counties	1 6½	1 2
B	Guildford ...	S. Counties	1 4½	1 0½
A	HALIFAX ...	Yorkshire	1 6½	1 2
A	Hanley ...	Mid. Counties	1 6½	1 2
A	Harrogate ...	Yorkshire	1 6½	1 2
A	Hartlepools ...	N.E. Coast	1 6½	1 2
B	Harwich ...	E. Counties	1 4½	1 0½
B	Hastings ...	S. Counties	1 4	1 0
A_2	Hatfield ...	S. Counties	1 5½	1 1½
B	Hereford ...	S.W. Counties	1 4½	1 0½
A_2	Hertford ...	E. Counties	1 5½	1 1½
A	Heysham ...	N.W. Counties	1 6½	1 2
A	Howden ...	N.E. Coast	1 6½	1 2
A	Huddersfield ...	Yorkshire	1 6½	1 2
A	Hull	Yorkshire	1 6½	1 2
A	ILKLEY ...	Yorkshire	1 6½	1 2
A	Immingham ...	Mid. Counties	1 6½	1 2
A_2	Ipswich ...	E. Counties	1 5½	1 1½
B_2	Isle of Wight ...	S. Counties	1 4½	1 0½
A	JARROW ...	N.E. Coast	1 6½	1 2
A	KEIGHLEY ...	Yorkshire	1 6½	1 2
A_2	Kendal ...	N.W. Counties	1 5	1 0½
A_2	Keswick ...	N.W. Counties	1 5	1 0½
A_1	Kettering ...	Mid. Counties	1 6	1 1½
A_2	Kidderminster	Mid. Counties	1 5½	1 1½
B_1	King's Lynn ...	E. Counties	1 4	1 0
A	LANCASTER ...	N.W. Counties	1 6½	1 2
A	Leamington ...	Mid. Counties	1 6	1 1½
A	Leeds	Yorkshire	1 6½	1 2
A	Leek	Mid. Counties	1 6½	1 2
A	Leicester ...	Mid. Counties	1 6½	1 2
A	Leigh	N.W. Counties	1 6½	1 2
B	Lewes	S. Counties	1 3	11½
A_2	Lichfield ...	Mid. Counties	1 5½	1 1½
A	Lincoln ...	Mid. Counties	1 6½	1 2
	Liverpool ...	N.W. Counties	*1 8	1 3
A_2	Llandudno ...	N.W. Counties	1 5½	1 1½
A	Llanelly ...	S. Wales & M.	1 6½	1 2
	London (12-miles radius)		1 8	1 3
	Do. (12-15 miles radius)		1 7½	1 2½
A	Long Eaton ...	Mid. Counties	1 6½	1 2
A	Loughborough	Mid. Counties	1 6½	1 2
A_1	Luton	E. Counties	1 6	1 1½
A	Lytham ...	N.W. Counties	1 6½	1 2
A_1	MACCLESFIELD	N.W. Counties	1 6	1 1½
A	Maidstone ...	S. Counties	1 5	1 0½
A_2	Malvern ...	Mid. Counties	1 5	1 0½
A	Manchester ...	N.W. Counties	1 6½	1 2
A	Mansfield ...	Mid. Counties	1 6½	1 2
B_1	Margate ...	S. Counties	1 4	1 0
A	Matlock ...	Mid. Counties	1 5	1 0½
A_1	Merthyr ...	S. Wales & M.	1 6	1 1½
A	Middlesbrough	N.E. Coast	1 6½	1 2
A_2	Middlewich ...	N.W. Counties	1 5½	1 1½
B_2	Minehead ...	S.W. Counties	1 3½	11½
B_2	Monmouth ... & S. and E. Glamorganshire	S. Wales & M.	1 3½	11½
A	Morecambe ...	N.W. Counties	1 6½	1 2
A_2	NANTWICH ...	N.W. Counties	1 5½	1 1½
A	Neath	S. Wales & M.	1 6½	1 2
A	Nelson ...	N.W. Counties	1 6½	1 2
A	Newcastle ...	N.E. Coast	1 6½	1 2
A	Newport ...	S. Wales & M.	1 6½	1 2
A	Normanton ...	Yorkshire	1 6½	1 2
A	Northampton	Mid. Counties	1 6½	1 2
A	North Shields...	N.E. Coast	1 6½	1 2
A	North Staffs ...	Mid. Counties	1 6½	1 2
A_1	Norwich ...	E. Counties	1 6	1 1½
A	Nottingham ...	Mid. Counties	1 6½	1 2
A	Nuneaton ...	Mid. Counties	1 6½	1 2
A	OAKHAM ...	Mid. Counties	1 5	1 0½
A	Oldham ...	N.W. Counties	1 6½	1 2
A_2	Oswestry ...	N.W. Counties	1 5	1 0½
A_1	Oxford ...	S. Counties	1 6	1 1½
A	PAISLEY ...	Scotland	*1 6½	1 2
B_2	Pembroke ...	S. Wales & M.	1 3	11½
A	Perth	Scotland	*1 6½	1 2
A_1	Peterborough	E. Counties	1 6	1 1½
A	Plymouth ...	S.W. Counties	*1 6½	1 2
A	Pontefract ...	Yorkshire	1 6½	1 2
A_1	Pontypridd ...	S. Wales & M.	1 6	1 1½
A_2	Portsmouth ...	S. Counties	1 5½	1 1½
A	Preston ...	N.W. Counties	1 6½	1 2
A	QUEENSFERRY	N.W. Counties	1 6½	1 2
A_2	READING ...	S. Counties	1 5½	1 1½
B	Reigate ...	S. Counties	1 4½	1 0½
A	Retford ...	Mid. Counties	1 5	1 0½
A_1	Rhondda Valley	S. Wales & M.	1 6	1 1½
A	Ripon	Yorkshire	1 5	1 0½
A	Rochdale ...	N.W. Counties	1 6½	1 2
B	Rochester ...	S. Counties	1 4½	1 0½
A_1	Ruabon ...	N.W. Counties	1 6	1 1½
A	Rugby ...	Mid. Counties	1 6½	1 2
A_2	Rugeley ...	Mid. Counties	1 5½	1 1½
A	Runcorn ...	N.W. Counties	1 6½	1 2
A_1	ST. ALBANS ...	E. Counties	1 6	1 1½
A	St. Helens ...	N.W. Counties	1 6½	1 2
B_2	Salisbury ...	S.W. Counties	1 3½	11½
A_1	Scarborough ...	Yorkshire	1 6	1 1½
A	Scunthorpe ...	Mid. Counties	1 6½	1 2
A	Sheffield ...	Yorkshire	1 6½	1 2
A	Shipley ...	Yorkshire	1 6½	1 2
A_2	Shrewsbury ...	Mid. Counties	1 5½	1 1½
A_2	Skipton ...	Yorkshire	1 5½	1 1½
A_2	Slough ...	S. Counties	1 5½	1 1½
A_1	Solihull ...	Mid. Counties	1 6	1 1½
A_2	Southampton	S. Counties	1 5½	1 1½
A_1	Southend-on-Sea	E. Counties	1 6	1 1½
A	Southport ...	N.W. Counties	1 6½	1 2
A	S. Shields ...	N.E. Coast	1 6½	1 2
A_1	Stafford ...	Mid. Counties	1 6	1 1½
A	Stirling ...	Scotland	1 7	1 2½
A	Stockport ...	N.W. Counties	1 6½	1 2
A	Stockton-on-Tees	N.E. Coast	1 6½	1 2
A	Stoke-on-Trent	Mid. Counties	1 6½	1 2
B	Stroud ...	S.W. Counties	1 4½	1 0½
A	Sunderland ...	N.E. Coast	1 6½	1 2
A	Swansea ...	S. Wales & M.	1 6½	1 2
A	Swindon ...	S.W. Counties	1 5	1 0½
A_1	TAMWORTH ...	N.W. Counties	1 6	1 1½
B	Taunton ...	S.W. Counties	1 4½	1 0½
A	Teesside Dist....	N.E. Counties	1 6½	1 2
A_2	Teignmouth ...	S.W. Coast	1 5½	1 1½
A	Todmorden ...	Yorkshire	1 6½	1 2
A_1	Torquay ...	S.W. Counties	1 6	1 1½
B_2	Truro	S.W. Counties	1 3½	11½
A_2	Tunbridge Wells	S. Counties	1 5	1 0½
A	Tunstall ...	Mid. Counties	1 6½	1 2
A	Tyne District	N.E. Coast	1 6½	1 2
A	WAKEFIELD	Yorkshire	1 6½	1 2
A	Walsall ...	Mid. Counties	1 6½	1 2
A	Warrington ...	N.W. Counties	1 6½	1 2
A_1	Warwick ...	Mid. Counties	1 6	1 1½
A_1	Wellingborough	Mid. Counties	1 6	1 1½
A	West Bromwich	Mid. Counties	1 6½	1 2
A_2	Weston-s.-Mare	W. Counties	1 5½	1 1½
A	Whitby ...	Yorkshire	1 5½	1 1½
A	Widnes ...	N.W. Counties	1 6½	1 2
A	Wigan ...	N.W. Counties	1 6½	1 2
B	Winchester ...	S. Counties	1 4½	1 0½
A_2	Windsor ...	S. Counties	1 5½	1 0½
A	Wolverhampton	Mid. Counties	1 6½	1 2
A_2	Worcester ...	Mid. Counties	1 5½	1 1½
A_2	Worksop ...	Yorkshire	1 5	1 0½
A_1	Wrexham ...	N.W. Counties	1 6	1 1½
A	Wycombe ...	S. Counties	1 5	1 0½
B	YARMOUTH ...	E. Counties	1 4½	1 0½
B	Yeovil ...	S.W. Counties	1 4½	1 0½
A	York	Yorkshire	1 6½	1 2

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

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

CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality and include delivery to site in Central London area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. 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. The whole of the information given is copyright.

WAGES

		s.	d.
Bricklayer	per hour	1	8
Carpenter	"	1	8
Joiner	"	1	8
Machinist	"	1	8
Mason (Banker)	"	1	8
" (Fixer)	"	1	9
Plumber	"	1	8
Painter	"	1	7
Paperhanger	"	1	7
Glazier	"	1	7
Slater	"	1	8
Scaffolder	"	1	4
Timberman	"	1	4
Navvy	"	1	3
General Labourer	"	1	3
Lorryman	"	1	5½
Crane Driver	"	1	7
Watchman	per week	2	10

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	"	1	16	6
Hydrated Lime	"	3	0	9
Portland Cement, in 4-ton lots (d/d site, including Paper Bags)	"	1	19	0
Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags)	"	2	5	0
White Portland Cement, in 1-ton lots	"	8	15	0
Thames Ballast	per Y.C.		6	6
¾" Crushed Ballast	"		7	0
Building Sand	"		7	6
Washed Sand	"		8	6
2" Broken Brick	"		8	0
½" " "	"		10	3
Pan Breeze	"		6	6
Coke Breeze	"		8	9

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

		4" s.	d.	6" s.	d.
Straight Pipes	per F.R.	0	9	1	1
Bends	each	1	9	2	6
Taper Bends	"	3	6	5	3
Rest Bends	"	4	3	6	3
Single Junctions	"	3	6	5	3
Double	"	4	9	6	6
Straight channels	per F.R.	1	6	2	6
½" Channel bends	each	2	9	4	0
Channel junctions	"	4	6	6	6
Channel tapers	"	2	9	4	0
Yard gullies	"	6	9	8	9
Intercepting Traps	"	16	0	19	6
IRON DITTO:					
Iron drain pipe	per F.R.	1	6	2	6
Bends	each	5	0	10	6
Inspection bends	"	9	0	15	0
Single junctions	"	8	9	18	0
Double junctions	"	13	6	30	0
Lead Wool	lb.		6		—
Gaskin	"		5		—

BRICKLAYER

		£	s.	d.
Fletton	per M.	2	15	0
Grooved do.	"	2	17	0
Phorpres bricks	"	2	15	0
" Cellular bricks	"	2	15	0
Stocks, 1st quality	"	4	11	0
" and "	"	4	2	6
Blue Bricks, Pressed	"	8	17	6
" Wirecuts	"	7	17	6
" Brindles	"	7	0	0
" Bullnose	"	9	0	0
Red Sand-faced Facings	"	6	18	6
Red Rubbers for Arches	"	12	0	0
Multicoloured Facings	"	7	10	0
Luton Facings	"	7	10	0
Phorpres White Facings	"	3	17	3
" Rustic Facings	"	3	12	3
Midhurst White Facings	"	5	0	0
Glazed Bricks, Ivory, White or Salt glazed, 1st quality:				
Stretchers	"	21	0	0
Headers	"	20	10	0
Bullnose	"	27	10	0
Double Stretchers	"	29	10	0
Double Headers	"	26	10	0
Glazed Second Quality, *Less*	"	1	0	0
" Buffs and Creams, *Add*	"	2	0	0
" Other Colours	"	5	10	0
2" Breeze Partition Blocks	per Y.S.		1	7
2½" " " "	"		1	10
3" " " "	"		2	1
4" " " "	"		2	6

MASON

The following d/d F.O.R. at Nine Elms:		s.	d.
Portland stone, Whitbed	F.C.	4	4½
" " Basebed	"	4	7½
Bath stone	"	2	10
York stone	"	6	6
" " Sawn templates	"	7	6
" " Paving, 2"	F.S.	1	8
" " " 3"	"	2	6

SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

		£	s.	d.
24" × 12" Duchesses	per M.	28	17	6
22" × 12" Marchionesses	"	24	10	0
20" × 10" Countesses	"	19	5	0
18" × 10" Viscountesses	"	15	10	0
18" × 9" Ladies	"	13	17	6
Westmorland green (random sizes)	per ton	8	10	0
Old Delabole slates d/d in full truck loads to Nine Elms Station:				
20" × 10" medium grey	per 1,000 (actual)	21	11	6
" " " green	" "	24	7	4
Best machine roofing tiles	"	4	5	0
Best hand-made do.	"	4	17	6
Hips and valleys	each			9
" hand-made	"			9½
Nails, compo	lb.		1	4
" copper	"		1	6

CARPENTER AND JOINER

		s.	d.
Good carcassing timber	F.C.	2	2
Birch	as 1" F.S.		9
Deal, Joiner's	" "		5
" 2nds	" "		4
Mahogany, Honduras	" "	1	3
" African	" "	1	1
" Cuban	" "	2	6
Oak, plain American	" "	1	0
" Figured	" "	1	3
" plain Japanese	" "	1	2
" Figured "	" "	1	5
" Austrian wainscot	" "	1	6
" English	" "	1	11
Pine, Yellow	" "	1	0
" Oregon	" "		4
" British Columbian	" "		4
Teak, Moulmein	" "	1	3
" Burma	" "	1	2
Walnut, American	" "	2	3
" French	" "	2	3
Whitewood, American	" "	1	1

Deal floorings,	Sq.	£	s.	d.
¾"	"	1	1	6
1"	"	1	2	0
1¼"	"	1	5	0
1½"	"	1	10	0
Deal matchings, ¾"	"		14	0
1"	"		15	6
Rough boarding, ¾"	"	1	4	0
1"	"		16	0
1¼"	"		18	0
	"	1	6	0

Plywood, per ft. sup.

Thickness	⅜"			½"			⅝"			¾"		
Qualities	A	B	BB	A	B	BB	A	B	BB	A	B	BB
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Birch 60 × 48	4	2½	2	5	3	2½	7	5	4	8	6	5
Cheap Alder	–	2	1½	–	3½	2	–	–	–	–	–	–
Oregon Pine	–	2½	–	3	2½	–	4	3½	–	5	4½	–
Gaboon Mahogany	4	3½	–	5	4½	–	7	6½	–	8	7	–
Figured Oak	6½	5	–	7½	5½	–	10	8	–	1/–	9	–

		d.
Scotch glue	lb.	8

SMITH AND FOUNDER

Tubes and Fittings

(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

		½"	¾"	1"	1½"	2"
Tubes, 2'-14' long	per ft. run	4	5½	9½	1/1	1/10
Pieces, 12"–23" long	each	10	1/1	1/11	2/8	4/9
" 3"–11½" long	"	7	9	1/3	1/8	3/–
Long screws, 12"–23½" long	"	11	1/3	2/2	2/10	5/3
" " 3" M–½" long	"	8	10	1/5	1/11	3/6
Bends	"	8	11	1/7½	2/7½	5/2
Springs not socketed	"	5	7	1/1½	1/11½	3/11
Socket unions	"	2/–	3/–	5/6	6/9	10/–
Elbows, square	"	10	1/1	1/6	2/2	4/3
Tees	"	1/–	1/3	1/10	2/6	5/1
Crosses	"	2/2	2/9	4/1	5/6	10/6
Plain sockets and nipples	"	3	4	6	8	1/3
Diminished sockets	"	4	6	9	1/–	2/–
Flanges	"	9	1/–	1/4	1/9	2/9
Caps	"	3½	5	8	1/–	2/–
Backnuts	"	2	3	5	6	1/1
Iron main cocks	"	1/6	2/3	4/2	5/4	11/6
" with brass plugs	"	—	4/–	7/6	10/–	21/–

Discounts

TUBES.	Per cent.		Per cent.
Gas	65	Galvanized gas	52½
Water	61½	" water	47½
Steam	57½	" steam	42½

FITTINGS.			
Gas	57½	Galvanized gas	47½
Water	52½	" water	42½
Steam	47½	" steam	37½

		s.	d.
Rolled steel joists cut to length	cwt.	12	9
Mild steel reinforcing rods, ¾"	"	10	6
" " ½"	"	10	3
" " ⅜"	"	10	0

SMITH AND FOUNDER—*continued*

		s.	d.
Mild steel reinforcing rods, ¾"	cwt.	9	6
" " ½"	"	9	6
" " 1"	"	9	6
" " 1¼"	"	9	6
" " 1½"	"	9	6

		¾" s.	d.	4" s.	d.
Cast-iron rain-water pipes of ordinary thickness metal	F.R.	8		10	
Shoes	each	2	0	3	0
Anti-splash shoes	"	4	6	8	0
Boots	"	3	0	4	0
Bends	"	2	7	3	9
" with access door	"		—	6	3
Heads	"	4	0	5	0
Swan-necks up to 9" offsets	"	3	9	6	0
Plinth bends, 4½" to 6"	"	3	9	5	3
Half-round rain-water gutters of ordinary thickness metal	F.R.	5		6	
Stop ends	each	6		6	
Angles	"	1	7	1	11
Obtuse angles	"	2	0	2	6
Outlets	"	1	9	2	3

PLUMBER

		s.	d.
Lead, milled sheets	cwt.	24	6
" drawn pipes	"	24	6
" soil pipe	"	30	0
" scrap	"	16	0
Solder, plumbers'	lb.		9½
" fine do.	"	1	0
Copper, sheet	"		8½
" tubes	"		11

L.C.C. soil and waste pipes:		3"		4"		6"	
Plain cast	F.R.	1	0	1	2	2	6
Coated	"	1	1	1	3	2	8
Galvanized	"	2	0	2	6	4	6
Holderbats	each	3	10	4	0	4	9
Bends	"	3	9	5	3	10	3
Shoes	"	2	10	4	4	9	6
Heads	"	4	8	8	5	12	9

PLASTERER

		£	s.	d.
Lime, chalk	per ton	2	5	0
Plaster, Coarse	"	2	10	0
" fine	"	4	15	0
Hydrated lime	"	3	0	9
Sirapite	"	3	6	0
Keene's cement	"	5	0	0
Gothite Plaster	"	3	6	0
Pioneer Plaster	"	3	6	0
Thistle plaster	"	3	6	0
Sand, washed	Y.C.		11	6
Hair	lb.			6
Laths, sawn	bundle		2	4
" rent	"		3	9
Lath nails	lb.			3

GLAZIER

		s.	d.	s.	d.
Sheet glass, 21 oz., squares n/e 2 ft. s.	F.S.			2	4
" " 26 oz.	"			3	
Flemish, Arctic, Figures (white)*	"			7	
Blazoned glasses	"			2	6
Reeded: Cross Reeded	"			11	
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite	"			6	
Crown sheet glass (n/e 12" × 10")	"			2	0
Flashed opals (white and coloured)	"	1	0 and 2	0	
¼" rough cast; rolled plate	"			5	6
¼" wired cast; wired rolled	"			9	6
¼" Georgian wired cast	"			11	
¼" Polished plate, n/e 1 ft.	"	†10 to ‡1		1	
" " 2	"	†1 2	" ‡1	4	
" " 4	"	†2 3	" ‡2	6	
" " 8	"	†2 9	" ‡3	2	
" " 20	"	†3 1	" ‡3	9	
" " 45	"	†3 3	" ‡4	0	
" " 100	"	†4 0	" ‡4	10	
Vita glass, sheet, n/e 1 ft.	"			1	0
" " " 2 ft.	"			1	3
" " " over 2 ft.	"			1	9
" " plate, n/e 1 ft.	"			1	6
" " " 2 ft.	"			3	0
" " " 5 ft.	"			4	0
" " " 7 ft.	"			5	0
" " " 15 ft.	"			6	0
" " " over 15 ft.	"			7	6
"Calorex" sheet 21 oz., and 32 oz.	"	2	6 and	3	6
" rough cast ¼" and ⅜"	"		8½ "	1	0
Putty, linseed oil	lb.			3	

* *Colours, 1d. F.S. extra.*

† *Ordinary glazing quality.* ‡ *Selected glazing quality.*

PAINTER

		£	s.	d.
White lead in 1 cwt. casks	cwt.	2	8	6
Linseed oil	gall.		2	3
Boiled oil	"		2	9
Turpentine	"		4	1½
Patent knotting	"		14	0
Distemper washable	cwt.	2	6	0
" ordinary	"	2	0	0
Whitening	"		4	0
Size, double	firkin		3	0
Copal varnish	gall.		13	0
Flat varnish	"		14	0
Outside varnish	"		16	0
White enamel	"	1	15	0
Ready mixed paint	"		13	6
Brunswick black	"		7	6

CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

EXCAVATOR AND CONCRETOR

		£ s. d.
Digging over surface n/e 12″ deep and cart away	Y.S.	2 9
,, to reduce levels n/e 5′ 0″ deep and cart away	Y.C.	8 6
,, to form basement n/e 5′ 0″ and cart away	,,	9 0
,, ,, 10′ 0″ deep and cart away	,,	9 6
,, ,, 15′ 0″ deep and cart away	,,	10 0
If in stiff clay	add ,,	6
If in underpinning	,, ,,	4 0
Planking and strutting to sides of excavation	F.S.	1 0
,, ,, to pier holes	,,	5
,, ,, to trenches	,,	5
,, ,, extra, only if left in	,,	3
Hardcore, filled in and rammed	Y.C.	10 0
Portland cement concrete in foundations (6–1)	,,	1 6 0
,, ,, (4-2-1)	,,	1 12 6
,, ,, underpinning	,,	1 16 0
Finishing surface of concrete, space face	Y.S.	7

DRAINLAYER

		4″ s. d.	6″ s. d.
Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	1 6	2 3
Extra, only for bends	Each	2 8	3 9
,, junctions	,,	3 9	4 6
Gullies and gratings		16 6	18 0
Cast iron drains, and laying and jointing	F.R.	4 9	6 9
Extra, only for bends	Each	10 6	15 6

BRICKLAYER

		£ s. d.
Brickwork, Flettons, in lime mortar	Per Rod	26 10 0
,, ,, in cement	,,	27 12 6
,, Stocks in cement	,,	34 0 0
,, Blues in cement	,,	50 0 0
Extra only for circular on plan	,,	2 0 0
,, backing to masonry	,,	1 10 0
,, raising on old walls	,,	2 0 0
,, underpinning	,,	5 10 0½
Fair Faces and pointing internally	F.S.	1¼
Extra over fletton brickwork for picked stock facings and pointing	,,	8
,, ,, ,, red brick facings and pointing	,,	11
,, ,, ,, blue brick facings and pointing	,,	1 4
,, ,, ,, glazed brick facings and pointing	,,	3 6
Tuck pointing	,,	7⅛
Weather pointing in cement	,,	3
Slate dampcourse	,,	10
Vertical dampcourse	,,	1 1

ASPHALTER

		s. d.
½″ Horizontal dampcourse	Y.S.	4 9
½″ Vertical dampcourse	,,	7 9
½″ paving or flat	,,	6 3
1″ paving or flat	,,	7 6
1″ × 6″ skirting	F.R.	1 0
Angle fillet	,,	2½
Rounded angle	,,	2½
Cesspools	Each	5 6

MASON

		£ s. d.
Portland stone, including all labours hoisting, fixing and cleaning down, complete	F.C.	17 9
Bath stone and do., all as last	,,	13 6
Artificial stone and do.	,,	13 0
York stone templates, fixed complete	,,	10 6
,, thresholds	,,	13 6
,, sills	,,	1 0 6

SLATER AND TILER

		£ s. d.
Slating, Bangor or equal to a 3″ lap, and fixing with compo nails, 20″ × 10″	Sqr.	3 10 0
Do., 18″ × 9″	,,	3 7 0
Do., 24″ × 12″	,,	3 17 0
Westmorland slating, laid with diminished courses	,,	6 0 0
Tiling, best hand-made sand-faced, laid to a 4″ gauge, nailed every fourth course	,,	3 0 0
Do., all as last, but of machine-made tiles	,,	2 16 0
20″ × 10″ medium Old Delabole slating, laid to a 3″ lap (grey)	,,	2 16 0
,, ,, ,, ,, ,, ,, ,, (green)	,,	4 15 0

CARPENTER AND JOINER

		£ s. d.
Flat boarded centering to concrete floors, including all strutting	Sqr.	2 2 6
Shuttering to sides and soffits of beams	F.S.	7
,, to stanchions	,,	7
,, to staircases	,,	1 6
Fir and fixing in wall plates, lintols, etc.	F.C.	3 9
Fir framed in floors	,,	4 6
,, ,, roofs	,,	6 6
,, ,, trusses	,,	7 6
,, ,, partitions	,,	8 6
⅞″ deal sawn boarding and fixing to joists	Sqr.	1 14 6
1″ ,, ,, ,, ,, ,,	,,	1 17 6
1¼″ ,, ,, ,, ,, ,,	,,	2 3 0
4″ × 2″ fir battening for Countess slating	,,	9 6
Do., for 4″ gauge tiling	,,	12 0
Stout feather-edged tilting fillet	F.R.	4½
Patent inodorous felt, 1 ply	Y.S.	2 3
,, ,, ,, 2 ,,	,,	2 9
,, ,, ,, 3 ,,	,,	3 3
Stout herringbone strutting to 9″ joists	F.R.	10½
1″ deal gutter boards and bearers	F.S.	1 2
1½″ ,, ,, ,, ,,	,,	1 6
2″ deal wrought rounded roll	F.R.	8
1″ deal grooved and tongued flooring, laid complete, including cleaning off	Sqr.	2 1 0
1½″ do.	,,	2 10 0
1¾″ do.	,,	2 17 0
1″ deal moulded skirting fixed on, and including grounds plugged to wall	F.S.	1 6
1¼″ do.	,,	1 9

CARPENTER AND JOINER—*continued*

		s. d.
1½″ deal moulded sashes of average size	F.S.	1 9½
2″ ,, ,, ,, ,, ,,	,,	1 11½
1½″ deal cased frames double hung, of 6″ × 3″ oak sills, 1¼″ pulley stiles, 1¼″ heads, 1″ inside and outside linings, ⅝″ parting beads, and with brass faced axle pulleys, etc., fixed complete	,,	3 7
2″ ,, ,, ,, ,, ,,	,,	3 10
Extra only for moulded horns	Each	6
1½″ deal four-panel square, both sides, door	F.S.	2 0
2″ ,, ,, ,, ,, ,,	,,	2 8
1½″ ,, but moulded both sides	,,	2 4
2″ ,, ,, ,, ,, ,,	,,	3 0
4″ × 3″ deal, rebated and moulded frames	F.R.	1 0
4½″ × 3½″ ,, ,, ,, ,,	,,	1 4
1½″ deal tongued and moulded window board, on and including deal bearers	F.S.	1 9
1½″ deal treads, 1″ risers in staircases, and tongued and grooved together on and including strong fir carriages	,,	2 6
1½″ deal moulded wall strings	,,	2 1
1½″ ,, outer strings	,,	2 4
Ends of treads and risers housed to string	Each	1 9
3″ × 2″ deal moulded handrail	F.R.	1 3
1″ × 1″ deal balusters and housing each end	Each	2 ^
1½″ × 1½″ ,, ,, ,,	,,	2 9
3″ × 3″ deal wrought framed newels	F.R.	1 3
Extra only for newel caps	Each	6 -
Do., pendants	,,	6 0

SMITH AND FOUNDER

		£ s. d.
Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	16 6
Riveted plate or compound girders, and hoisting and fixing in position	,,	1 0 6
Do., stanchions with riveted caps and bases and do.	,,	19 0
Mild steel bar reinforcement, ½″ and up, bent and fixed complete	,,	17 6
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	F.S.	11
Wrot-iron caulked and cambered chimney bars	Per cwt.	1 10 0

PLUMBER

		£ s. d.
Milled lead and labour in flats	cwt.	1 18 6
Do. in flashings	,,	2 2 0
Do. in covering to turrets	,,	2 7 6
Do. in soakers	,,	1 13 3
Labour to welted edge	F.R.	3½
Open copper nailing	,,	3
Close ,, ,,	,,	4

		½″ s. d.	¾″ s. d.	1″ s. d.	1¼″ s. d.	2″ s. d.	4″ s. d.
Lead service pipe and fixing with pipe hooks	F.R.	10	1 0	1 3	2 0	2 10	—
Do. soil pipe and fixing with cast lead tacks	,,	—	—	—	—	—	5 6
Extra, only to bends	Each	—	—	—	—	2 0	6 9
Do. to stop ends	,,	6½	8	9	11	1 0	—
Boiler screws and unions	,,	3 3	3 9	5 0	8 0	—	—
Lead traps	,,	—	—	—	6 3	8 9	—
Screw down bib valves	,,	6 9	9 6	11 0	—	—	—
Do. stop cocks	,,	7 0	9 6	12 6	—	—	—

		£ s. d.
4″ cast-iron ½-rd. gutter and fixing	F.R.	1 0
Extra, only stop ends	Each	1 0
Do. angles	,,	1 6
Do. outlets	,,	2 9
4″ dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	1 2
Extra, only for shoes	Each	1 3
Do. for plain heads	,,	5 6

PLASTERER AND TILING

		s. d.
Expanded metal lathing, small mesh	Y.S.	2 0
Do. in n/w to beams, stanchions, etc.	,,	2 9
Lathing with sawn laths to ceilings	,,	1 3
½″ screeding in Portland cement and sand or tiling, wood block floor, etc.	,,	1 5
Do. vertical	,,	1 7
Rough render on walls	,,	1 2½
Render, float and set in lime and hair	,,	1 9
Render and set in Sirapite	,,	1 11
Render, backing in cement and sand, and set in Keene's cement	,,	2 9
Extra, only if on lathing	,,	4
Keene's cement, angle and arris	F.R.	6
Arris	,,	1½
Rounded angle, small	,,	3
Plain cornices in plaster, including dubbing out, per 1″ girth	,,	1½
1″ granolithic pavings	Y.S.	3 6
1½″ ,, ,, ,,	,,	4 6
6″ × 6″ white glazed wall tiling and fixing on prepared screed	,,	17 6
9″ × 3″ ,, ,, ,,	,,	1 2 6
Extra, only for small quadrant angle	F.R.	8

GLAZIER

		s. d.
21 oz. sheet glass and glazing with putty	F.S.	6½
26 oz. do. and do.	,,	7½
Flemish, Arctic Figured (white) and glazing with putty	,,	1 1
Cathedral glass and do.	,,	1 2
Glazing only, British polished plate	,,	7
Extra, only if in beds	,,	2
Washleather	F.R.	4

PAINTER

		s. d.
Clearcolle and whiten ceilings	Y.S.	6
Do. and distemper walls	,,	9
Do. with washable distemper	,,	1 1
Knot, stop, prime and paint four coats of oil colour on plain surfaces	,,	3 3
Do. on woodwork	,,	3 6
Do. on steelwork	,,	3 0
Do. and brush grain and twice varnish	,,	5 6
Stain and twice varnish woodwork	,,	1 11
Stain and wax-polish woodwork	,,	4 6
French polishing	F.S.	1 2
Stripping off old paper	Piece	2 0
Hanging ordinary paper	from ,,	2 9

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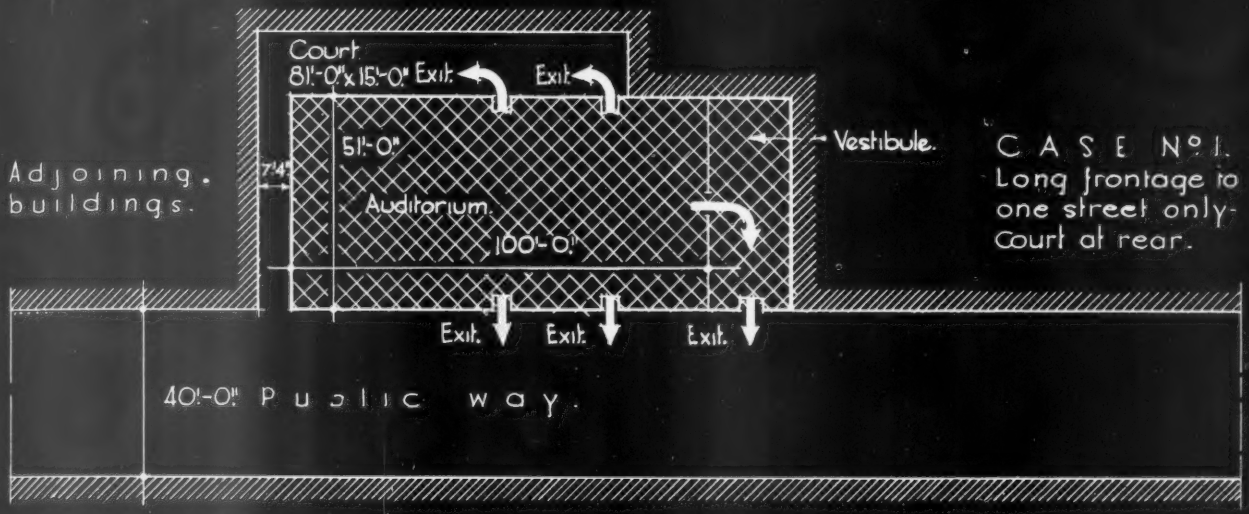
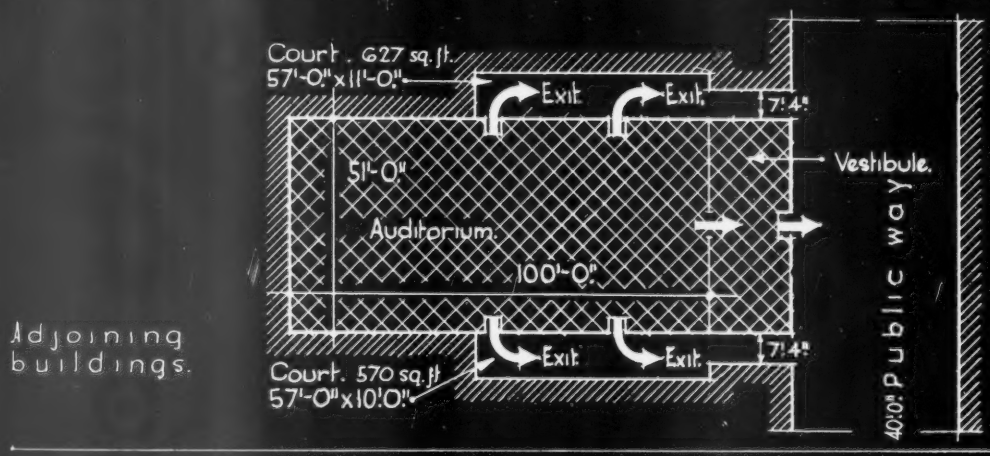
THE SITING OF BUILDINGS:

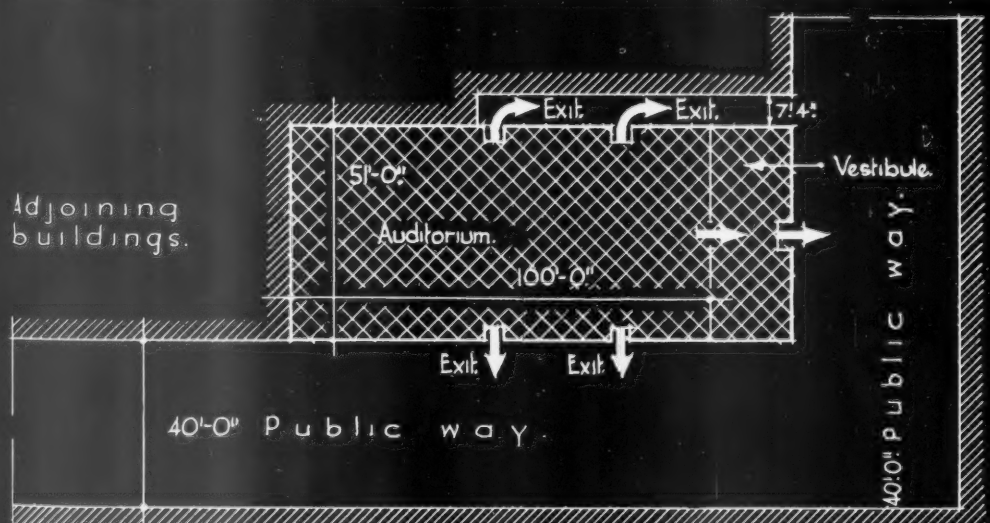
The plans below illustrate the recommendations for the provision of adequate escape from a typical building.
The case taken being a building of 5100 sq. ft. accommodating 850 persons closely seated at ground level. The building being of class A construction with no serious exposure hazard.



CASE Nº 1.
Long frontage to one street only - Court at rear.



CASE Nº 2.
Narrow frontage to one street only. Courts on both sides.



CASE Nº 3.
Frontage to two streets - no courts but passage on one side equal to total width of exits.

extract from the "Manual of Safety Requirements in Theatres & other Places of Public Entertainment" (Home Office) 1934.

INFORMATION SHEET: PLANNING DATA: PLACES OF PUBLIC ENTERTAINMENT. 1.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1. Oscar A. Bayne.

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INFORMATION SHEET

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PLACES OF PUBLIC ENTERTAINMENT

Subject : Calculation of Size and Number of Exits.

The material given on this sheet is taken from the Manual of Safety Requirements in Theatres and other places of Public Entertainment published by the Home Office, 1935. The recommendations given in this Manual and here quoted form a code of minimum requirements for the guidance of Local Authorities.

Exposure Hazard

Proximity to premises of the following classes shall be held to constitute a High Hazard :—

Accumulator Makers
Aeroplane Store and Manufacture
Artificial Flowers
Artificial Leather
Bedding Manufacturers
Brush Making
Cabinet Making
Candle Making
Cardboard Box Making
Celluloid
Cellulose Spraying
Chemical Works
Confectioners (Manufacturing)
Cork. Cotton Wool
Cotton Clothing
Cotton Waste. Chemicals
Druggists (Wholesale and Manufacturing)
Dry Cleaning
Feathers
Film Storage and Handling
Fireworks
Flannelette
Flour and Grist Mills
Garages
Hay and Straw Dealers
Hemp, Flax and Jute
India Rubber Manufacturing and Treating
Insulating Material Manufacturing
Linoleum Manufacturing
Munition Makers and Stores
Oil and Colour Merchants
Oil and Petrol Stores (unless with underground tanks)
Oil Refineries
Paper Bags
Paper Works
Rag and Waste Dealer
Rag Sorting
Repositories (Furniture)
Sawmills
Ships' Chandlers
Shoddy
Stationers (Manufacturing)
Stables
Straw Goods
Toy Shops
Upholsterers
Wood Working

Recommendations

12. Every public portion of the building shall be provided with exits adequate both as to number and size.

13. (*a*) In buildings of "Class A" or "Class B" construction in which more than 80 persons are accommodated at or about ground level, and in buildings of "Class C" construction in which more than 50 persons are so accommodated, the minimum number of exits to be provided shall be two.

(*b*) Two exits at least shall be provided from any circle or gallery accommodating more than 60 persons in a building of "Class A" or "Class B" construction, or more than 45 persons in a building o "Class C" construction. In a building of "Class C" construction, where more than one exit is required from a circle or gallery, two stairways shall be available between the circle or gallery and ground level.

14. All entrances shall be available as exits.

15. (*a*) An exit on or by way of a stage or platform shall not be reckoned as one of the required exits for the public ; and

(*b*) An exit on the side of the stage or platform remote from the audience shall not be so reckoned unless completely separated from the stage risk by fire-resisting construction.

Exits from Stage and Stage Basement

16. In existing buildings regularly used and seating more than 400 persons, in which scenery is employed, and in new buildings seating more than 400 persons, whether regularly or occasionally so used, the following exits shall be provided :—

(*a*) An exit from each side of the stage, one of which shall be to the open air by way of an unventilated lobby entirely separated from the stage risk by fire-resisting construction with a self-closing fire-resisting door at the stage end opening in the direction of exit and a self-closing door at the outer end : provided that in existing buildings this exit may be direct to the open air by way of a self-closing door.

(*b*) Two exits shall be provided from the stage basement, one of which shall lead to the open air either directly by way of a self-closing door or by way of a lobby entirely cut off from the stage risk; such lobby may connect with the lobby required by Requirement 16 (*a*) if a smoke-stop door be provided at the junction of such lobbies.

(*c*) Adequate means of escape shall be provided to the open air by ladder or staircase which may be external or separated from the stage risk by fire-resisting material.

17. In existing buildings, occasionally used and seating more than 400 persons, or regularly used and seating not more than 400 persons:

(*a*) One exit shall be provided from the stage to the open air either directly by way of a self-closing door or by way of a lobby or corridor having a smoke-stop door near the stage end.

(*b*) Where a basement exists in such premises one exit shall be provided therefrom other than by way of the stage.

18. In places occasionally used and seating not more than 400 persons an exit shall be provided from the stage side of the curtain. This exit may be by way of a window of the "french" type. Egress may be by way of the dressing-rooms or dressing-room corridor, in which case a smoke-stop door shall be provided between the stage and the dressing-room area (see Requirement 19).

Exits from Dressing-rooms

19. In premises regularly used in which scenery is employed dressing-rooms shall be separated from the stage risk by walls or partitions of fire-resisting construction, openings being fitted with fire-resisting self-closing doors arranged, if desired, to swing both ways. Two exits shall be provided from the dressing-room area, one of which shall lead direct to the open-air by way of a self-closing door without passing on to the stage or through or across any of the approaches to the stage.

20. (*a*) In premises occasionally used in which scenery is employed, having dressing-room accommodation for more than fifteen persons, there shall be at least one exit from the dressing-rooms and such exit shall lead to the open air without passing on to the stage or through or across any of the approaches to the stage. If direct to the open air this shall be by way of a self-closing door. If it be necessary to pass through a passage or corridor to gain the open air such passage shall be separated from the stage risk by walls of fire-resisting construction. There shall be a smoke-stop door between the dressing-room area and the stage risk.

Notices

21. (*a*) All exits in sight of the audience shall be indicated by the word "EXIT." These notices shall be tinted green or illuminated by green lights.

(*b*) All other doors or openings leading from the auditorium and any passage or corridor leading to a dead end or to such places as are unsafe or unsuitable for the purpose of egress shall be indicated by the words "NO THOROUGHFARE." These notices shall be tinted red or illuminated by red lights.

(*c*) At any point at which it is possible for any doubt to arise as to the direction of exit, or where persons might unwittingly move into danger, a notice tinted green or illuminated by a green light shall be provided, with the words "TO EXIT——."

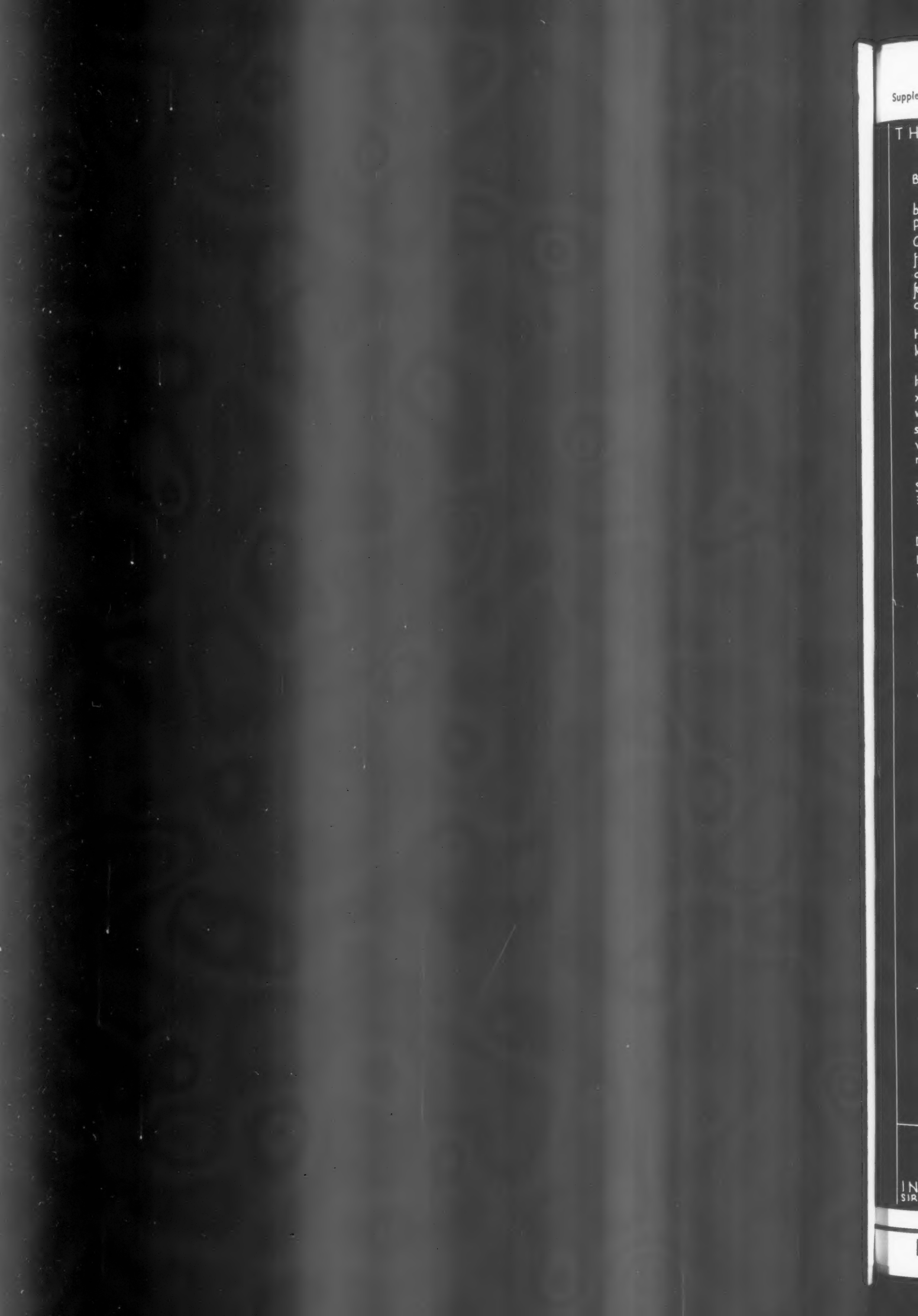
(*d*) The notices required by the three foregoing Conditions shall be illuminated by the safety-lighting service, or by both main and safety-lighting services.

(*e*) Where possible these notices shall be placed above the doors to which they relate, but in any case they shall not be less than six feet nine inches above floor level.

(*f*) The lettering of such notices shall comply with the requirements of Condition 132 and, except for the lettering prescribed by Condition 21 (*b*) shall be not less than six inches in depth.

132. (*a*) The lettering used for notices or inscriptions required by any requirement or condition shall consist of plain block lettering, shall be of the height prescribed in such requirement or condition, and shall be so proportioned that the width of no letter (except the letter "I") is less than five-sevenths of its height, and the width of no part of any letter is less than one-fifth of the width of the letter.

(*b*) The notices shall not contain any ornament or be so arranged adjacent to ornament that their legibility be thereby impaired.



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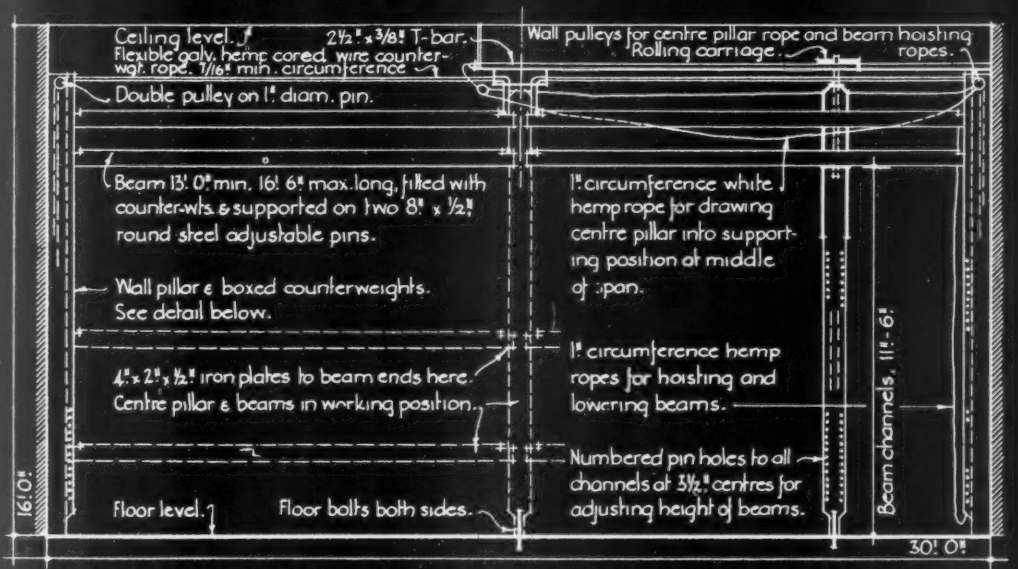
BEAMS. Double span. Timber should be specially selected Pitch Pine or British Columbia Pine, free from all defects, cut accurately to shape for a sliding fit in the channels.

Upper beams to have both ends hollowed for ropes.

Hoisting ropes to be attached by 6" x ½" screwed hooks, with the lower beams swivel riveted for reverse position when required.

SCALE FOR ELEVATION 3/16 inch = 1 foot.



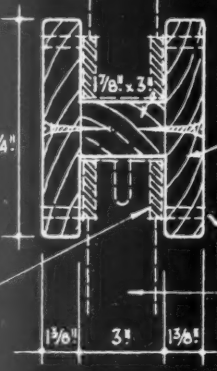
SECTION THROUGH GYMNASIUM SHEWING COLLAPSIBLE BEAM APPARATUS.

DETAILS OF CENTRE PILLAR, BEAM & WALL PILLAR:

All members 7¾" to be glued & screwed together with counter-sunk iron screws in brass cups.

4" x 2" x ½" iron plates.

SCALE FOR SECTIONS: 2 inches = 1 foot.



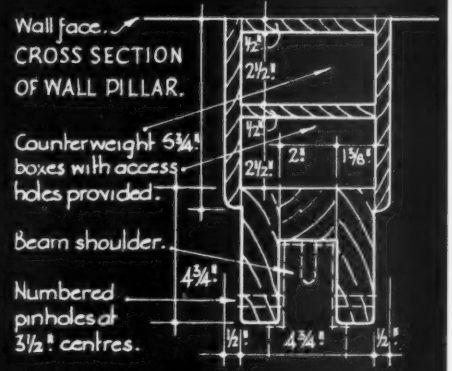
CROSS SECTION OF TRAVELLING CENTRE PILLAR.

One side only carried up above the channels.

Pinholes.

Ends of upper beam hollowed for lower beam hoisting rope.

CROSS SECTION OF BEAM.



CROSS SECTION OF WALL PILLAR.

Counterweight 5¾" boxes with access holes provided.

Beam shoulder.

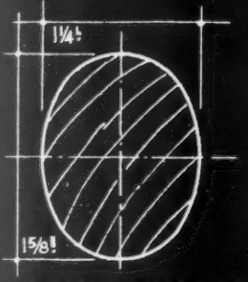
Numbered pinholes at 3½" centres.

WALL BARS:

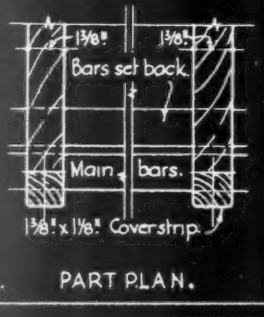
Timber should be specially selected Pitch Pine absolutely free from knots and all other defects.

The oval bars should be cut halfway into the uprights and nailed to them. Bars to be in one length for four sections, bars over this length may be in two pieces, butted over an upright & both ends nailed.

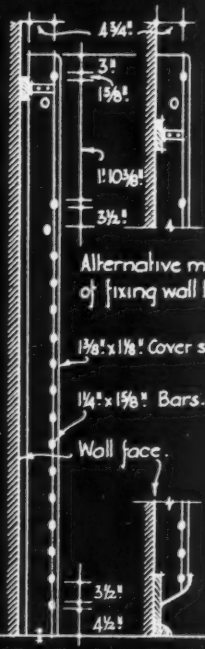
Notches should be shaped for seating. Cover strips to be well rounded & notched. All members to be secured with iron screws in brass cups.



CROSS SECTION OF BAR.

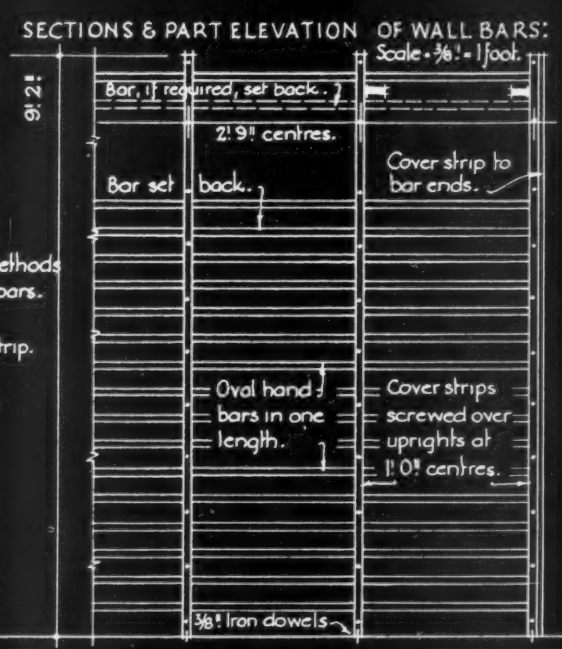


PART PLAN.



Alternative methods of fixing wall bars.

SECTIONS & PART ELEVATION OF WALL BARS: Scale - ⅜" = 1 foot.



Data from Board of Education Physical Training Series No. 14, by permission of the Controller, H. M. Stationery Office.

INFORMATION SHEET: GYMNASIUMS: 3: DETAILS OF BEAMS AND WALL BARS

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1.

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GYMNASIUMS—III

Wall Bars

The width of each section of wall bars is 2 feet 9 inches from centre to centre of uprights (i.e. width between uprights 2 feet 7⅝ inches). The main uprights should be about 4¾ inches in width and 1⅜ inches thick. The frontpieces should measure 1⅜ inches by 1⅛ inches and should have rounded corners and be secured to the uprights with suitable iron countersunk screws in brass cups or sockets at a distance of about 12 inches apart. At the ends of each set of sections the outer side of the upright should have a cover batten nailed on to cover the ends of the oval bars which go through the uprights.

The other more important dimensions are shown in the drawing. The oval bars (1⅝ inches by 1¼ inches) should be made of long leaf pitch pine and be absolutely free from knots or any other defects ; they should be cut half way into the uprights and half way into the frontpieces, fitted in properly shaped oval holes cut to exact fit, and fixed to the uprights by nails that are not too thick. If desired, an additional bar below the top bar may be added as an alternative position for hanging exercises, this additional bar and the second bar down below the open space being set back slightly as shown in the sketch.

An alternative type of wall bar which is now obtainable is fixed to the wall of the gymnasium just above the floor level and is not carried down to the floor. This apparatus follows in the main the general specification of wall bars as described above, but has many advantages, the chief of which are that the floor is left clear of obstruction and can therefore be better and more easily cleaned ; no floor space is wasted ; and damage to the bottom end of the wall bar upright caused by coming in contact with the feet of balancing benches is avoided since the wall bar can be so constructed as to clear the feet of the benches when the latter are pushed along the wall bars.

Beams

A double-span beam consists of four beam pieces, a built-up pillar fixed at each side of the room, a centre pillar, and an overhead track which carries the centre pillar and the pulley wheels, etc., for the suspension of the beams. The beams are fitted with counterweights, and the centre pillars with a trolley so that when not in use the beams can be drawn up overhead and the centre pillar pulled close in to the wall leaving the floor clear of obstruction. A single-span beam consists of two beam pieces, one fixed pillar, an end pillar, and the overhead track. A single-span beam is used when the room is too wide to be fitted with a double-span beam, i.e. when the room is more than 35 feet wide.

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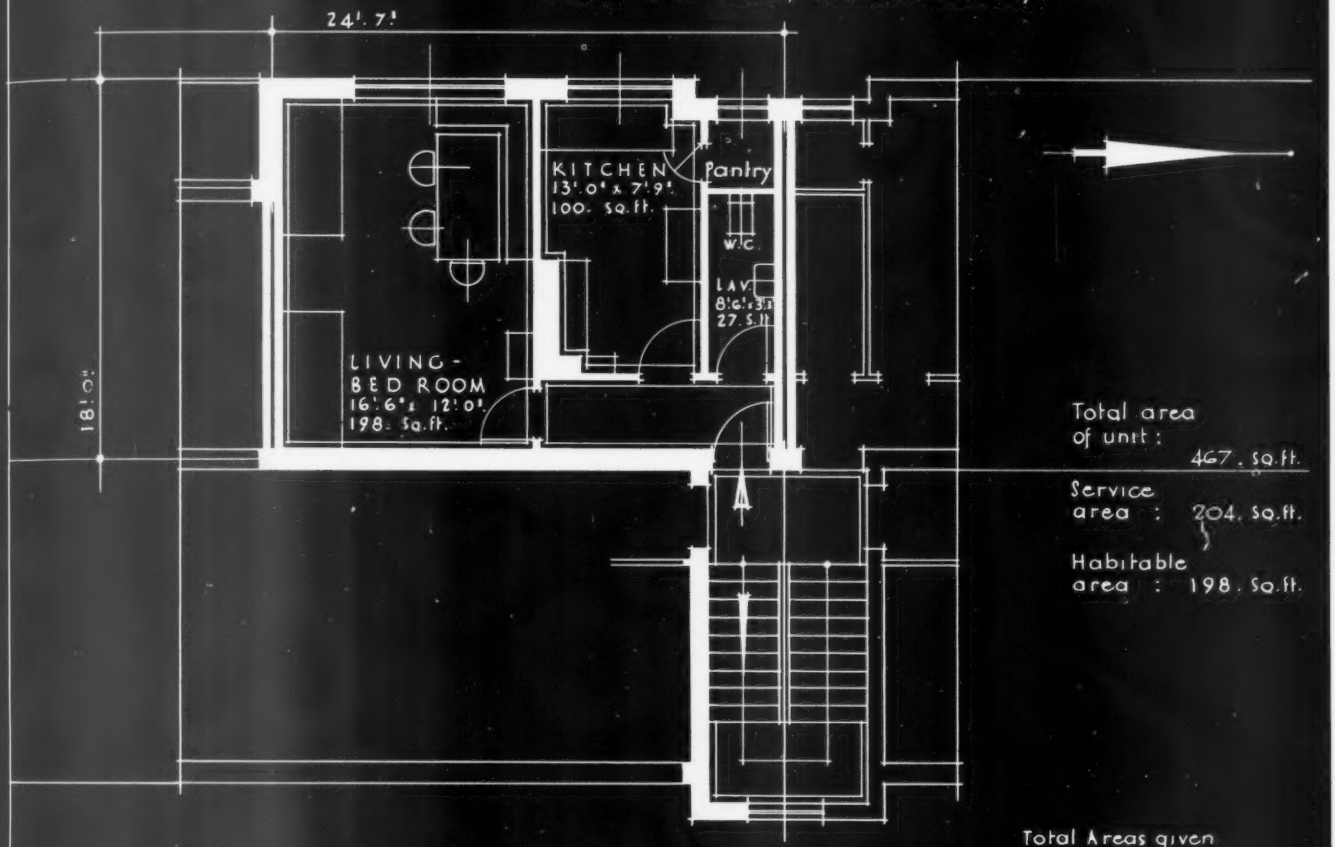
TYPES OF FLAT UNIT : LODZ.

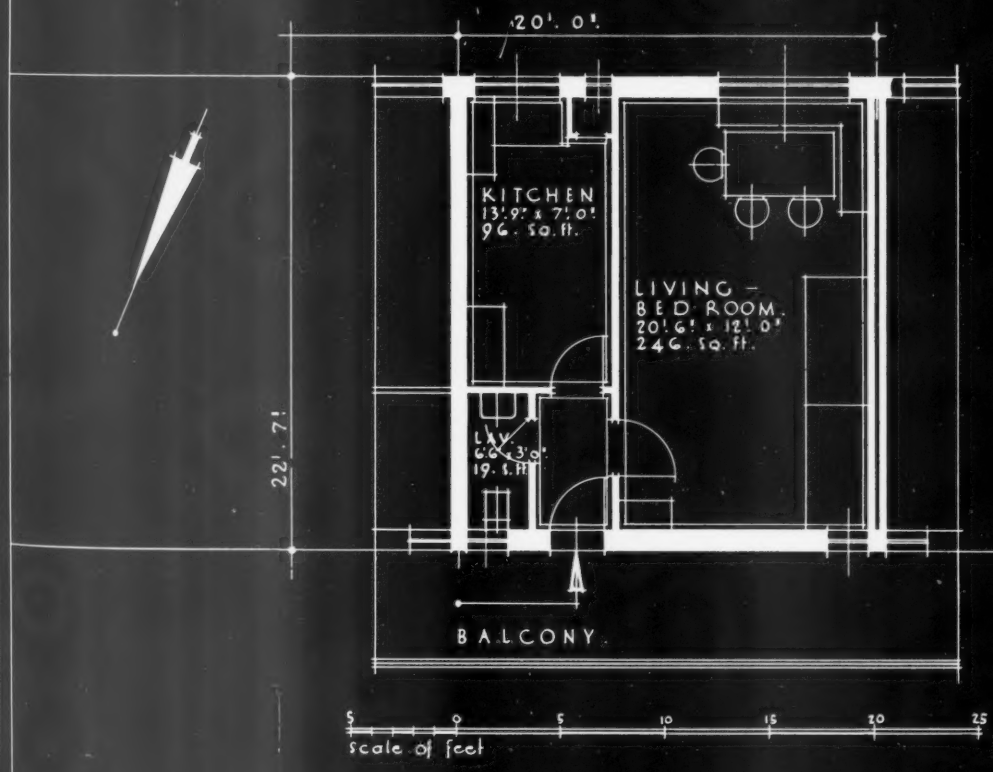
ACCESS : Internal Staircase, – Balcony
TYPE : 1 - Room, Kitchen & Lavatory



Total area of unit : 467. Sq. ft.

Service area : 204. Sq. ft.

Habitable area : 198. Sq. ft.



Total Areas given include the external walls, ½ the division walls between flats, ¼ the area of the stair. Balconies are not included

Total area of unit : 452. Sq. ft.

Service area : 140. Sq. ft.

Habitable area : 246. Sq. ft.

INFORMATION SHEET : INDUSTRIAL HOUSING. 14.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON.

Supplement to THE ARCHITECTS' JOURNAL for July 30, 1936

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INDUSTRIAL HOUSING UNITS—XIV

Lodz

The Unit given in the upper part of this Sheet is one with access from an internal stair, four flats being served by each stair.

The Living-Bed-room is arranged to accommodate two persons, and with dining table and fixed seats. It will be noticed that the w.c. has no natural ventilation nor light.

The Unit on the lower part of the Sheet is a simple balcony access type, which gives cross ventilation to the Living-room, and natural light and ventilation to both w.c. and kitchen.

Neither of the two types shown were equipped with baths or showers.

The service area includes all that space which is not used as living accommodation for the occupants, i.e., kitchens, wardrobes, baths, w.c.'s and lobbies.