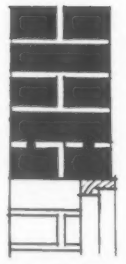

SECTION.

REINFORCED BRICKWORK

Reinforced Brickwork in the full sense is a complete system of construction comparable with, and in many ways superior to, other better known systems; but the general principle can be applied with advantage and economy to all sorts of details in ordinary construction.

Reinforced brick lintels such as that shown need no forming and no hoisting into position and they avoid those shrinkage cracks which so often show in the finished plastering.

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

THURSDAY, SEPTEMBER 29, 1938. NUMBER 2280 : VOLUME 88

PRINCIPAL CONTENTS

CREATION WITH CRAFTSMANSHIP

Messrs. Russell & Bromley Ltd., Sevenoaks *Architects: Peter D. Stonham & Son*

" In a shop there should be no escaping the allurements of the entrances . .

THIS extract from that delightful collection of papers upon architectural subjects, which Mr. H. S. Goodhart-Rendal, P.R.I.B.A., has so pertinently entitled "Vitruvian Nights," is an axiom of successful design for selling. This Master of many arts was referring to obligatory features in different kinds of buildings.

The well-planned shop-front has entrances which are not only alluring, but also conveniently placed for ingress and egress, as well as for the inspection of displayed merchandise. Design for selling which is free from discord or disfigurement is one of the major problems of contemporary commercial architecture.

Towards the solution of this problem, Courtney Pope have directed their resources and craftsmanship. And in the prosecution of their work they accept responsibility for certain "obligatory features"—durability, dignity, distinctiveness, æsthetic appeal, or, if you will, urbanity: qualities which we feel are exemplified in this Sevenoaks shop-front with its pleasant combination of stainless steel and bronze. Particularly noteworthy are the "Antiflecta" windows on either side of the entrance on the main frontage.

COURTNEY POPE LTD

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I have really no reason for publishing this photograph except that to my mind it is a very attractive one. It was taken from Beck and Pollitzer's new warehouse at Bankside, where "Colemanoid" No. 3 concrete surface hardener was used on those parts of the warehouse floors which have to withstand heavy trucking. The production of "Colemanoid" No. 3 surface hardener leaves no excuse for having concrete floors which dust up, as it can be applied to old or new floors. May I send you details of this surface treatment, which considerably increases the wear resistance of the concrete? Incidentally, "Alundum" non-slip tiles were used on the staircases of Beck and Pollitzer's building.

Cecil Kalm

"Colemanoid" No. 3 and
"Alundum" non-slip tiles.

The Adamite Company, Ltd. Head Office: Manfield House, Strand, W.C.2. Temple Bar 6233
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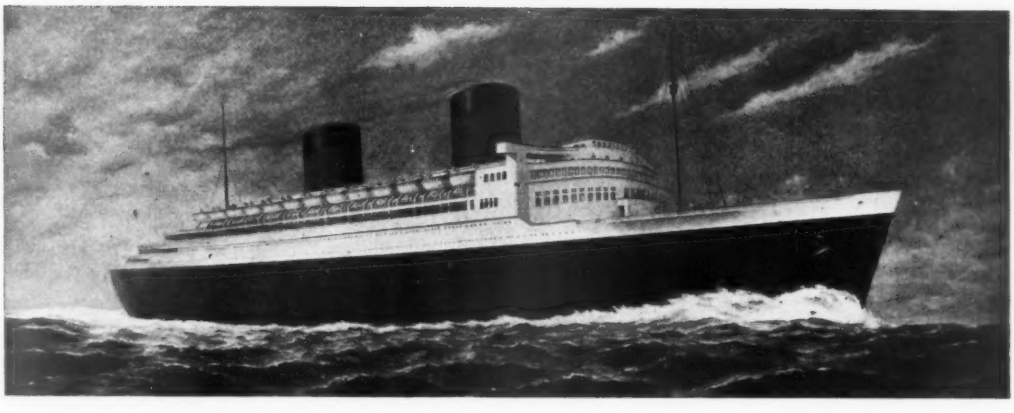
LAUNCHED ON TUESDAY LAST

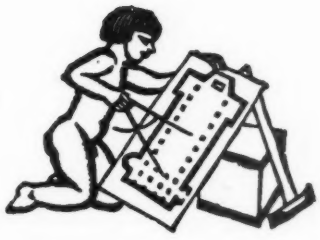


On Tuesday last, H.M. the Queen launched the "Queen Elizabeth" at John Brown's, Clydebank. Above, a view of the ship on the stocks; right, a perspective by C. F. Hopkinson.

DUTCH COUNTRY VILLA

The use of traditional materials in the hands of experts like M. Dudok has lead to the belief that the Dutch have been far more generally successful than this country in producing good compromises between traditional methods and contemporary needs and materials.

This new country house near Arnhem makes the matter more doubtful and gives the impression of a traditional form beginning to bulge into shapelessness under the pressure of the requirements of a contemporary client.



TRAINING IN DESIGN

THE overwhelmingly important part of architectural education is training in design. On this everyone is agreed. It is over the next step that agreement breaks down—over the method by which the best results in training in design can be obtained in forty months.

Today there are two main ways—based on very different attitudes of mind—of encouraging students to develop their powers of design.

One of them is what may be called the Beaux Arts way: a method which aims at developing rapid co-ordination between mind and hand, which has as its central framework the short dogmatic programme, the irrevocable esquisse and the development of the esquisse by a student relying solely on his own previously acquired knowledge.

This method, to exist at all, demands that permissible variations in plan and construction should be relatively few, and that the principles upon which the completed schemes will be judged should be universally accepted and understood. It is, in short, a doubtful method to use in a period when anything at all important is being called in question.

The second way of training students is very different though not easy to label. It aims chiefly at encouraging the student to develop a *planning mind* which can approach with some confidence all *planning* problems.

It is thus much more ambitious than the Beaux Arts system. The Beaux Arts man can plan anything fairly rapidly *within the limits of the problems he has been trained to tackle and providing his principles are not questioned.* The man trained under the wider system can, it is believed, plan few things rapidly, but he has been provided with an attitude of mind, and a method, which will enable him to tackle *all planning problems, whatever their scope, with some assurance of arriving ultimately at a competent solution.*

This wider system assumes a reasonable intelligence in the student as a beginning, and then encourages him to approach design strictly from the facts: the facts of what is to be done and the space and equipment needed for doing it, and the facts of the alternative ways now available for providing that space and equipment.

It is believed that once the student has been encouraged to study the elementary facts of the simplest problems, to order the important and the less important, he will have grasped the primary aim of architecture—that of providing and arranging spaces in which people can do things conveniently. Once he has learnt immediately to look for and recognize these elementary facts in all problems, he will have begun to develop the planning mind. And he will be able to apply the same methods to all problems of planning—whether a small house or trading estate, a traffic system or a town hall.

The difficulty of encouraging this method of training in an architectural school may seem large. Does the method we have described recommend each student to be left alone with the million facts of architecture to form patterns or to fail to do so as he feels inclined? It does not. It would retain the graduated problem in design, and even the problem set and solved *in camera*—but would regard them both very differently from the devotees of Beaux Arts. The *in camera* problem in particular would be considered only a useful occasional and subordinate test of imagination and manual and mental dexterity—an aid to tackling examination problems and not those of practice.

The difference between this system and that of the Beaux Arts is thus fundamental. In the Beaux Arts system the tackling of graduated problems on principles both few and assumed universally valid is the central operation; other studies merely supply the information necessary to turn this operation into a negotiable commodity in the outside world.

In the wider system the central operation is the development of the planning mind, to which is made accessible by an efficient staff or library system the data which provide the medium in which the planning mind must work. The graduated problem is, under this system, a most useful incentive for enquiries in a particular field of problems and solutions—as it is in the practice of architecture. But it is no more and no less.

On which of these main methods is adopted as the policy of a school must depend the school's whole organization. No smaller alterations or reshufflings can disguise that it is this primary decision which all schools must make before long.

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NOTES & TOPICS

THE COMING WEEK-END

THE next few days must inevitably be the worst of all the black week-ends which Europe has managed to squeeze into the last twenty years.

*

Architects face the thought of war with a double horror: not only as private citizens, but as people whose normal work is wholly constructive and must inevitably come to a full stop during, and for long after, hostilities. This they cannot change.

*

The published list of precautions now being taken against the worst and the list of duties for which volunteers are needed, do, however, make plain how much architects will be needed in a state of emergency. Long-term constructive work will come to an end, but short-term preservative work will need all the architects in the country.

*

Heavier structural A.R.P., trench systems, camps for evacuation and other purposes, and all the problems of accommodation, structure and sanitation connected with these are works for which architects and associated engineers are specially fitted.

*

We all hope that the emergency will not arise—but a system which would allow of the rapid change-over of architects into work immediately needed would seem a precaution which ought to be taken at once.

VOLUNTEERS NEEDED

And here is something which can be done *now* by all readers in London who have cars. Mr. P. V. Mauger, 22 Buckingham Gate, S.W.1 (Victoria 8785 or Welwyn Garden 816) has undertaken to organize 300–400 cars to evacuate about 1,400 children.

*

Fuller details are given in Mr. Mauger's letter on page 529. Everyone who can provide a car, a driver and an adult passenger is asked to telephone or post short particulars to Mr. Mauger *at once*.

*

North London cars will evacuate northwards and South London cars southwards.

DIVISION OF LABOUR

The *News Chronicle* we know as an enlightened newspaper which, apart from running the now famous Schools Competition, continues to take an intelligent interest in architecture, and does its best to make its readers conscious of the buildings around them.

*

When the *Star*, owned by the same interests, sponsored a plan for the South Bank, one assumed that here was another paper where architecture would be accepted as an essential part of the social system.

*

It makes one a little sad, therefore, to read the *Star's* official pamphlet on the plan, in which it is "described by the Assistant Editor, Wilson Midgley,"—no mention being made of Mr. Spence-Sales or of Mr. John Bland. But they, poor fellows, were only the designers of the whole scheme and so have no Fleet Street value.

MR. THERM LENDS A HAND

When visiting a joinery works in Fulham the other day, I noticed a small seventeenth-century house set back in an alley among a huddle of cottages. The foreman joiner informed me that it was Sandford Manor, once the house of Nell Gwynne, and now occupied by an official of the Gas Light and Coke Company.

*

The house is now being renovated by the owner, and restored, so far as the outside is concerned, to its original appearance. I was told that little has to be done. The panelling remains in excellent preservation, and the oak staircase, up which Charles II is reputed to have ridden his horse, is still there. Although the horse, I understand, has unfortunately long since disappeared.

FRANK LLOYD WRIGHT

It is far from Taliesin, Wis., to Number 66 Portland Place, geographically as well as architecturally, but the Henry Jarvis Memorial Hall will see four lectures by Wright during November. The loan of the hall for the purpose puts into practice the recently instituted principle which has brought the R.I.B.A. so much credit: of recognizing the existence of the really important figures in the world of architecture before instead of after they are dead—*vide* the names that occur in the recent lists of Honorary Corresponding Members.

*

And Frank Lloyd Wright, on the strength of his work in the early years of this century, is a figure of the utmost historical importance. As is well known, the Europe which he now visits shows far more traces of his influence than his native America.

*

His visit has been arranged by the Sulgrave Manor Board, the administrators of George Washington's ancestral home at Sulgrave in Northamptonshire, but the R.I.B.A. are recognizing it not only by lending their hall but by inviting Wright to dine with the Council before his

Mr. Howard Robertson (left) and Mr. J. Murray Easton, architects for the British Pavilion at the New York World's Fair. The photograph, taken last week, shows them with a model of the building.

first lecture. MARS, I believe, are also giving him hospitality.

HORSE OR HILL INSPIRATION FOR RAMP

There are to be two main divisions, one learns, in the British Pavilion for next year's World's Fair at New York—a Hall of Majesty, including a history of Britain in terms of heraldry, and a Hall of Achievement, overlooking (thanks presumably to Mr. Middleton) an old English garden.

*

They are to be joined by a gently descending ramp. A gossip-writer last week suggested that this was inspired by the horse ramp which apparently still exists outside the house of Mr. Howard Robertson, co-designer of the Pavilion.

*

With all respect to the horses, I hope that they were less of a precedent than the ramp which was one of the most successful features of last year's pavilion at Paris by Oliver Hill.

FLATS APPEAL

The remarks here about the lack of details of flats to let has drawn a response from a company that "owns and controls some eight thousand flats in and around the Metropolis."

*

It is nice to learn that they provide a service through twenty-one branch offices and a central reception bureau.

*

But one is still perfectly sure, despite expert protestations to the contrary, that PLANS would be extremely useful, in the advertising of Flats to Let.

*

"The complete lack of comprehension displayed by the average flat-hunter when confronted by a plan" is an old one that not so many people can be persuaded to believe nowadays.

RURAL CLEAN-UP

The Ministry of Health has issued another booklet called "New Homes for Old."

The preface, by Mr. Walter Elliot, is quite admirable. It deals with the Housing (Rural Workers) Acts for bringing all cottages up to modern standards.

*

Says Mr. Elliot: "There are still many who do not seem to grasp that the Acts are there to help *them*. Don't be frightened of the cost of improvements. They can be done and they should be done and Parliament and the Local Authorities are willing to help to do it—up to £100 a cottage if necessary."

*

The only wonder is just how much more expensive it is for the Government to ask farmers to do things instead of doing them themselves.

PROBLEM

After all the expert explanations of "jollop" and of what oak does to lead, this page seems the right place to ask for an opinion on another problem.

*

It is about timber—so architects had better be very careful. Here it is :—

*

A manufacturer has to keep in stock a large number of small castings. The castings are greased and stored in reasonably strong boxes of seasoned deal, which, in turn, are stacked in a very damp warehouse (humidity from 80–100 per cent.).

*

At the end of, say, a year, when the castings are usually sold by the boxfull, the boxes have been so attacked by fungus and other rot that they are useless and the castings have to be repacked in new boxes.

*

The castings are themselves protected against damp, and to heat the very large warehouse would be very expensive. It is suggested that if the boxes were made of unseasoned green wood with a high moisture content they might be immune from ill-effects in their damp surroundings.

*

Opinions are now invited from all. ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

D.I.A. CONFERENCE

We are informed that the bookings for the Design and Industries Association's Conference at Buxton have in no way approached the numbers expected in the light of last year's experience, no doubt because of nervousness and uncertainty about the situation in Central Europe.

It would appear that members would prefer the function to be held later when international relations have improved, and it has therefore been decided to postpone the Conference and to hold it in 1939 at Buxton under the programme arranged for this year.

The payment made by members in respect of the original arrangements will be refunded in due course.

BUILDING COSTS

The Scottish Building Costs Committee, appointed by the Secretary of State for Scotland to inquire into and report on the reasons for the increase in the cost of building working-class houses in Scotland, held its first meeting this week in the office of the Department of Health for Scotland.

A general discussion took place on the question of the remit and the procedure to be adopted. The committee decided to consider evidence from persons and associations whose activities bring them into close contact with the matter of building costs. The next meeting is to be held in about one month's time.

"NEW HOMES FOR OLD"

An illustrated booklet entitled *New Homes for Old*, issued last week by the Ministry of Health, explains how owners can make use of the Housing (Rural Workers) Acts to bring old cottages for farm-workers up to modern standards of health and comfort.

In a brief preface the Minister of Health, Mr. Walter Elliot, says "There are still many who do not seem to grasp that the Acts are there to help *them*—to help the workers to homes in which they can bring up their families in decency and in comfort—to help the land to keep its people and to preserve the countryside as generations have known and loved it."

Grants may be obtained for improving a cottage for a rural worker up to two-thirds of the cost of the work subject to a maximum grant of £100 a house. Grants may be paid by instalments as the work proceeds. In order to qualify for a grant the owner must show: (1) That the cottage will be made fit to live in by modern standards; (2) that the cost of the work will not be less than £50 a cottage; (3) that the value of the cottage when the work is finished will not exceed £400; (4) that for the next 20 years the cottage will be reserved for an agricultural worker or person of the same economic position and will be rented accordingly.

Under the new Act an owner wishing to free himself from the last condition can do so at any time by repaying a proportion of this grant related to the unexpired portion of the 20 years period.

New Homes for Old describes the main defects to which old cottages are liable, and indicates the means whereby these defects could be overcome with the aid of a grant under the Housing (Rural Workers) Acts. It deals in turn with structure, accommodation, services, fittings, design and finance.

Bulk supplies of the booklet are being made available to local authorities administering the Acts.

VILLAGE COMMUNITY CENTRES

Valuable assistance and advice for rural communities who wish to benefit from the decision of the National Fitness Council to make available grants towards the erection, adaptation and improvement of village halls is contained in the revised edition of *Village Halls; Their Construction and Management*, published by the National Council of Social Service (price 1s. 3d.), which, during the past 13 years has, with the co-operation of the Carnegie United Kingdom Trustees and the Development Commissioners, been able to assist in the building of 450 village halls by means of grants totalling over £60,000 and interest-free loans amounting to £76,000.

The booklet deals simply with every aspect of the problems which are likely to confront rural communities in their desire to possess a well-designed and adequately equipped hall. Especially valuable are the helpful hints on planning, while the instances quoted of villages which have built their own hall by voluntary labour, and thereby have saved nearly half the cost of the building, show convincingly that the provision of a suitable centre of community life can be within the grasp of almost every village.

The booklet also records the sources from which financial assistance towards the cost of the building of the hall may be obtained, namely the National Council of Social Service and the National Fitness Council, while the chapters on the management of the hall answer many queries associated with trust deeds, licences, rates and taxes. Illustrations of some of the halls which the National Council of Social Service have assisted, and model plans for halls suitable for villages of varying sizes, complete the picture of a subject which is of vital importance to the well-being of rural communities.

THE PREVENTION OF DRY ROT

Dry rot, unfortunately, is still all too common, both in old and in new buildings, but how it is caused and how it can be prevented are now well understood. The Bulletin *Dry Rot in Wood*,* prepared by the Department of Scientific and Industrial Research, proved to be a best seller and already a third edition has been called for.

Dry rot is a rather unfortunate name for the decay of wood in buildings, since it is always a result of the timber having become damp. It is pointed out that there is no reason why dry rot should ever occur in new buildings, except as a result of accidental leakage of water, and the precautions necessary to prevent the penetration of damp which leads to decay of the woodwork are fully explained. Flat roofs with parapet walls are becoming increasingly popular and these sometimes give rise to much trouble with damp penetration, if certain precautions, illustrated in this Bulletin are not observed.

The new edition embodies the result of much recent research and is provided with a number of new illustrations.

REPORT ON THE PRESERVATION OF THE COUNTRYSIDE

A report made to the Minister of Health by the Town and Country Planning Advisory Committee was published last week by H.M. Stationery Office (price 6d.). The committee was first appointed by Lord Kennet of the Dene (then Sir E. Hilton Young) in 1934, following the passing of the Town and Country Planning Act, 1932, to consider general questions relating to town and country planning in England and Wales.

* H.M. Stationery Office. Price 1s.

THE ARCHITECTS' DIARY

Thursday, September 29

NATIONAL SMOKE ABATEMENT SOCIETY. *Annual Conference. At Cardiff. Until October 1.*

TIMBER DEVELOPMENT ASSOCIATION. *At the Building Centre, New Bond Street, W.1. Exhibition of designs in the Association's recent competition. Until October 15.*

BUILDING EXHIBITION, *Olympia. Until October 1.*

CZECHOSLOVAKIA—FACTS. *Meeting organized by the Architects' Group, Artists International Association, etc., to be held at Conway Hall, Red Lion Square, W.C.1. Speakers: H. Wickham Steed and Prof. R. W. Seton-Watson. 8.15 p.m.*

Friday, September 30

ARCHITECTS' REGISTRATION COUNCIL. *At 68 Portland Place, W.1. 26th Ordinary Meeting.*

TOWN PLANNING INSTITUTE. *Twentieth Annual Country Meeting. At the Queen's Hotel, Leeds. Until October 3. See page 543.*

Sunday, October 2

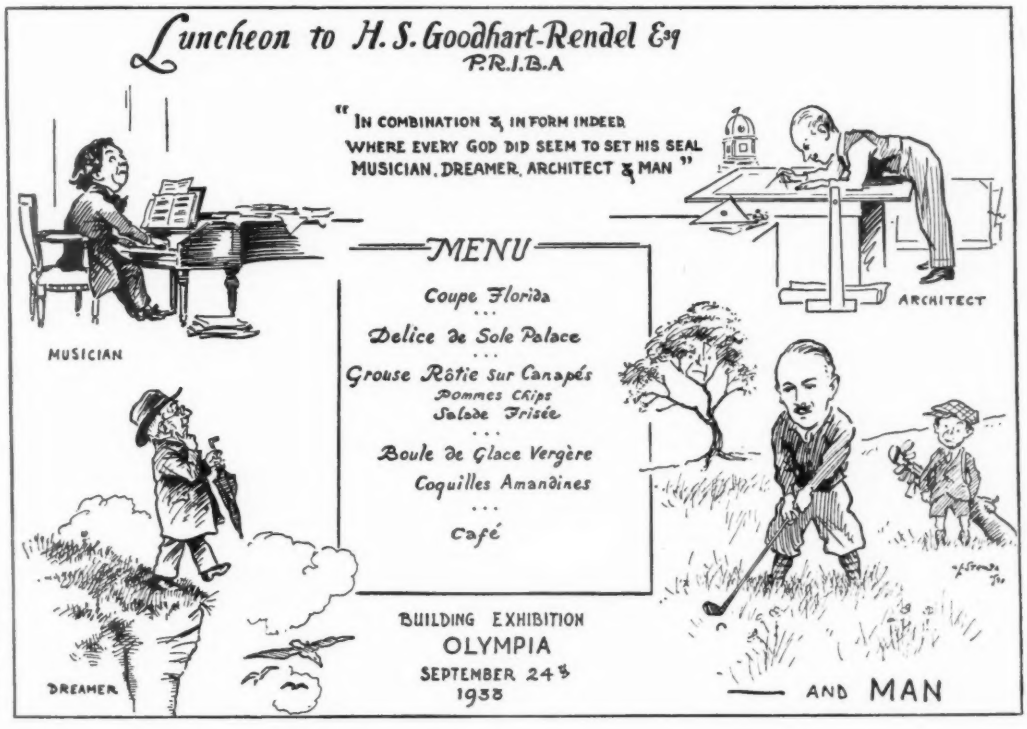
ROYAL SANITARY INSTITUTE. *Health Week Celebration. Until October 8.*

Monday, October 3

LONDON SOCIETY OF PAST STUDENTS OF THE LEEDS SCHOOL OF ARCHITECTURE. *Meeting to be held at the R.I.B.A., 66 Portland Place, W.1. 7.30 p.m.*

Saturday, October 8

LONDON TRADES COUNCIL. "*A.R.P. in Relation to the Civil Population of London.*" *Addresses by J. B. S. Haldane and T. E. Scott. Memorial Hall, Farringdon Road, E.C. 2.30 p.m.*



A reproduction of the menu of the luncheon given to Mr. H. S. Goodhart - Rendel at Olympia on Saturday last.

The Committee states that it has been admittedly anxious not to suggest substantial changes in the law if it could possibly help doing so, since proposals would seriously interfere with the work which is already being done. Nevertheless it has found that improvements both in the law and in the administration of the law are wanted, and it has made a number of recommendations, under both heads.

COASTAL PRESERVATION. A NATIONAL INTEREST

The Committee finds that the adoption of planning powers by local authorities has recently proceeded at a satisfactory speed, but there is still a long stretch of coastline unprotected ; and it urges that the Minister should bring pressure to bear on the authorities concerned.

A total prohibition of building normally carries a liability to pay compensation, and it is recognized that this is a difficulty in securing the proper preservation of those parts of the coast where there is already pressure to build. Generally the Committee does not consider that large-scale expenditure on compensation is either practicable or desirable, but it makes an exception of the "holiday areas" where what is really wanted is that the land should be kept completely free of building. Some of the seacoast authorities are, however, quite unable to face heavy claims to compensation, and the Committee suggests that here there is a case for making part of the cost of preservation a charge on national funds.

While it is recognized that total prohibition of building should normally carry a right to claim compensation, it is considered that owners can reasonably be expected to site what buildings they erect with due regard to the public interest. The Committee recommends that local authorities should be able to require new buildings to be set back a reasonable distance from the coastline without incurring liability to pay general compensation.

"ZONES" FOR RURAL AREAS

For the completely rural area the Committee recommends a new "rural zone," a form of control that can be applied without compensation. This zone would only be applied to land which so far as can be seen should retain its rural character indefinitely, and after full provision for all prospective building development has been made elsewhere. In such an area all buildings connected with agriculture, horticulture, forestry, etc., and small buildings for rural industries such as jam or cider-making would be allowed freely. All other buildings would require the consent of the local authority, and those which are *prima facie* less appropriate to the country would also be subject to a third party appeal against a proposal by the local authority to give consent, an appeal which might be made not only by an individual, but also by any association formed for the purpose of protecting amenities.

In addition the Committee makes a number of more detailed recommendations with a view to clearing up unsatisfactory points in the present system. It feels that the existing powers for the preservation of trees should be made available at an earlier stage, and that agricultural buildings, at present free from control, should be subject to control of appearance at least. The Committee is strongly of opinion that advertising requires to be more strictly controlled, but as this is at present being investigated by the Home Office, it has refrained from making detailed recommendations.

RIBBON DEVELOPMENT

The Committee suggests that a survey should be made of the effects on planning of the Restriction of Ribbon Development Act, and arrangements set up in every county for regular consultation between the planning and highway authorities, with a view to giving closer consideration to rural preservation in connection with road-planning. It finds that planning authorities are not making the most of the opportunities afforded by the Ribbon Act, and it recommends that authorities should be urged to take a more determined line in the prevention of any ribbon development. Powers for the purpose exist in the Planning Act as well, and the Committee considers that here too control ought to be tightened and permission to build refused, as the Act allows, wherever it would be "injurious to the amenity of the neighbourhood."

ADMINISTRATION

Finally the Committee urges a general strengthening of administration. It recommends that every planning authority should review its existing staff and ensure that they are both adequate in number, and sufficiently well qualified for dealing in detail with plans submitted by developers and for preparing schemes. It considers, too, that the Ministry of Health should take a more active part in assisting local planning by disseminating the experience of all authorities, by publishing more freely suggestions on the best ways of meeting difficulties, and by maintaining closer touch with authorities. When planning schemes have come into operation it considers that certain parts of them, particularly rural zoning which extends over more than one district, should be administered by special executive joint bodies set up for the purpose.

A NEW COMPETITION

The Godalming B.C. invites architects of British nationality to submit designs for Municipal Offices to be erected in the Borough. Mr. Stanley C. Ramsey, F.R.I.B.A., has been appointed assessor, and the following premiums are offered : £200, £150, and £100.

The conditions, together with site plans, may be obtained on application to Mr.

A. P. V. Moon, Town Clerk, Town Clerk's Office, Godalming. (Deposit £1 1s.) The last day for questions is Monday, October 31, and the last day for submission of designs is January 31, 1939.

COMPETITION: LAND LAYOUT

At a recent meeting at Abergele, under the auspices of the Council for the Preservation of Rural Wales, several prominent residents and others interested in the neighbourhood discussed the initiation of a competition, the result of which it is hoped will be of great practical value (states the *Liverpool Daily Post*).

Through the generosity of an anonymous donor, it is proposed that a prize of £100 shall be awarded to the winner of a competition to provide the best ideal future layout for hitherto undeveloped land in the centre of the district of Abergele and Pensarn.

APPOINTMENT

Mr. H. S. Bentley, A.M.T.P.I., Senior County Planning Assistant to the County Surveyor, has been appointed Regional Planning Officer for North-East Lancashire (Region One).

BUILDING EXHIBITION REPORT

In the report on the Building Exhibition, published in our issue for September 22, there were two errors which should be corrected.

In Fig. 5 on page 482 the Thermacoust partition should, of course, have been shown resting on the reinforced floating floor and not on the cork insulation.

On the same page the new flooring by the Limmer and Trinidad Asphalt Company should have been referred to as Semtex.

CAVERSHAM ESTATE

In the description of the Caversham Estate, for the Land Settlement Association, published in last week's issue, we omitted to mention that the white finish supplied by the Adamite Co., Ltd., was provided by the application of one coat of Ellicem tenacious cement paint.

TOWN AND COUNTRY PLANNING

Following are extracts from a paper entitled "The Architect's Contribution to Town and Country Planning," read by Mr. T. Alwyn Lloyd at the Town and Country Planning School, held recently at Exeter.

"It has been gratifying to observe within the last few years the number of public competitions for central replanning and the lay-out of large estates. Again, the great schemes which many municipalities are embarking on have provided excellent opportunities for official architects and outside consultants to demonstrate their skill in civic design, and I am sure we all hope that there will be more of such work undertaken as time goes on. Speaking generally, however, the architect's concern all too frequently is with the single unit of design. If these units form part of the town street, or are placed haphazard among other structures, it is relatively seldom that the designer, or any other architect for that matter, is consulted about the design of neighbouring façades; consequently, his own efforts are stultified because there is no co-ordination between them and other architectural work in the vicinity. Some of the larger estates, particularly in London, exercise a measure of architectural control, and we are getting some control by local authorities, particularly when they construct entirely new thoroughfares through built areas, but speaking broadly street façades give an impression of disunity and of missed opportunities.

"At our schools of civic design we train young men who are well equipped for their task, but one finds that the possibilities of absorbing them into the 'design' aspect of town planning are rather limited. In the result they either become immersed in the more general duties of planning officers, or they go into private offices, where the opportunities for practising civic design are infrequent.

"As one who, in the course of his practice, has to do a good deal of work in connection with statutory planning, I know something of its complexities and of the fact that the imaginative part of it has so frequently to be subservient to the details of zoning, negotiations, roads improvements and so on. It is all a complicated business and that is why it must be a co-operative one to get the best results. What I am pleading for is that the architect's contribution, and the necessary research and study for planning in the full sense, should not be lost sight of, as one fears it often is, in the course of carrying out the statutory duties in preparing a scheme.

"Much of the criticism of town and country planning that one hears is ill-informed; sometimes it is based on pure prejudice against the powers conferred by the Act of 1932, and in any case it is too early for emphatic pronouncements to be made as to the success or otherwise of the work done under the Act. But, having admitted all this, I think we must take into account the feeling that prevails in many quarters of disappointment arising from failure on the architectural side of planning control. I think we could summarize the intelligent layman's feeling about town planning somewhat as follows:—

"1. He sees that towns are extending and the country is being rapidly absorbed in ribbon development, bad placing of buildings and illiterate 'design.'

"2. Of the existing towns (although this usually happened before the days of town planning) he complains of their invariable drabness of aspect and the lack of interest produced by the buildings and street façades.

"3. The same complaint unfortunately is also valid to a large extent in regard to the more recently developed suburbs. Although their density is much more open than in the town nuclei, unity is missing, shopping and communal centres are disappointing and the standard of design is mediocre to say the least.

"4. The countryside and the coast have been defaced with sporadic, ill-placed buildings, vulgar advertisements and commercial premises.

"Now in essence, the depressing conditions referred to (which arise from new and rapidly extending tendencies of contemporary life) result mainly from failure to link up development (and redevelopment) on the one hand, and conservation on the other, with *design*. There has been inadequate study and in consequence but a half-hearted attempt to work out a rational expression of architectural character in town suburbs and in the country environment. Such expression, which can only be given effect to by those who are trained in architecture and the intricate processes of building, would give some 'soul' as well as a more comely body to the new communities that are so busily taking shape in every locality.

"It is, of course, chiefly in relation to the design of small buildings—houses, shops, garages and minor commercial premises—that architectural control under town planning powers is so badly needed. The design of larger buildings is invariably entrusted to architects at the outset, although, as has been already said, much remains to be done under planning schemes to co-ordinate these larger buildings and to bring them more into accord with one another, particularly as regards streets and built areas.

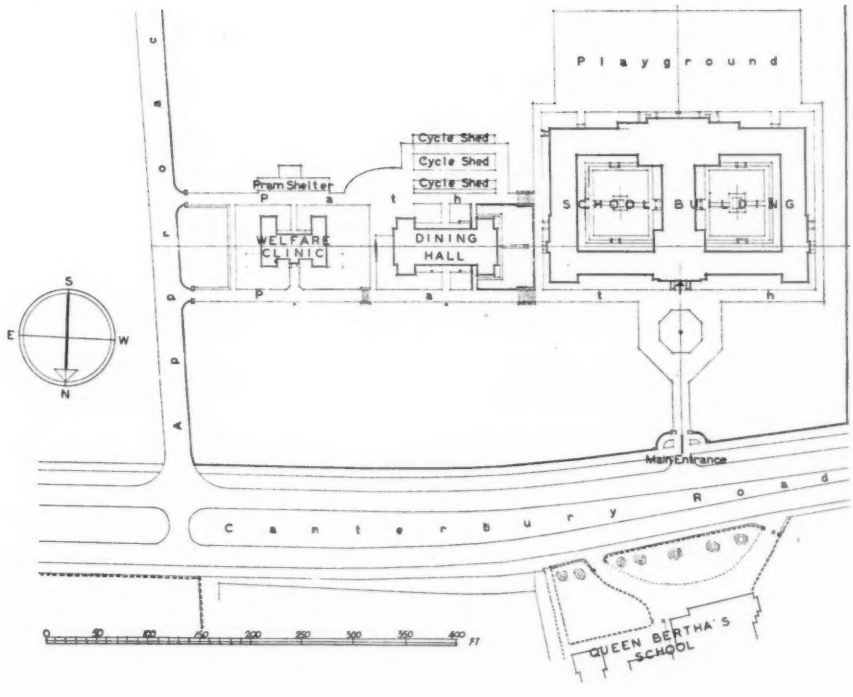
"I think it is now generally recognized that each planning authority ought to have competent architectural advice at its disposal. This can be obtained from the planning officer having the necessary qualifications, or from a consultant; should such advisors not be available, then the advice should be obtained from some architectural official or from an outside practitioner. As an alternative to these direct advisors, and in order that authorities, and particularly rural authorities, should be able to obtain voluntary advice, the Panel system was set up some years ago. It is now being operated by an increasing number of authorities and its usefulness has been widely demonstrated. Indeed, under conditions existing in many areas, it has appeared to be the only practicable method during a period when town and country planning was getting to work. But I am sure that those best acquainted with the Panel system, admirable as it is in many ways, will be the first to admit that it is only a half measure, the sort of compromise that we are so prone to adopt in Britain! In some cases the planning authority submits all the deposited plans for the observation of the Panel and acts on its advice. In other instances the Panel is referred to in doubtful cases. I have had personal experience of the working of one or two Panels, which has been on the whole favourable, but during the interim development period it is found that decisions as to design or materials are often ignored or only partially accepted by builders. There is always controversy as to whether the full planning control in such matters as these should operate during the I.D. period. My own view is that the authority's decisions on control of elevations should be just as effective during that period as are the other powers under the bylaws. As things are, all that the Panel can hope to do is to prevent by persuasion the worst faults being perpetrated and to prevent the more obvious vulgarities in elevational treatment. This in itself is something to be thankful for, but much more requires to be done. To ensure really satisfactory results it is not sufficient for the planning officer or the Panel to peruse the plan and suggest amendments where required. The proposals must be followed up after approval to see that the buildings are carried out in accordance with the approved plans. This can only be done by someone with architectural experience; the points to watch as we know may be relatively small ones, that can only be appreciated by those who are well versed in the grouping and erection of buildings under architectural supervision. It is here, of course, that the whole-time official with the requisite qualifications can do such valuable work behind the scenes and by being tactful, but firm, he can influence design to a considerable extent, as one knows from experience in many areas where this is going on.

"I wish it were possible to devise machinery in connection with planning schemes by means of which small groups of architects well versed in small domestic buildings could work together in particular areas assigned to them where development is proceeding. This could only be done under present conditions by collaboration between landowners, builders and planning authority. Much good could result from such a scheme both in regard to the lay out and design of building estates. Pooled over a large number of houses and shops, the fees would come to a very modest amount, quite infinitesimal in relation to the cost of building.

"Under the new Architects Registration Act, after a short transitional period until 1940 the title 'Architect' can only be used in future by a person who has been registered as such. Is it too much to hope that when the Act is in full operation our local authorities, fortified with such amending bylaws as are necessary, will require that all building plans submitted to them are prepared by an architect? We can hardly hope that this in itself would dispose of our troubles as regards the design of small houses, but it would be a very definite step in the right direction, and as professional standards for admission to the register are tightened up we could confidently expect to see real improvements in existing conditions."

CENTRAL SCHOOL, MARGATE

DESIGNED BY W. R. H. GARDNER



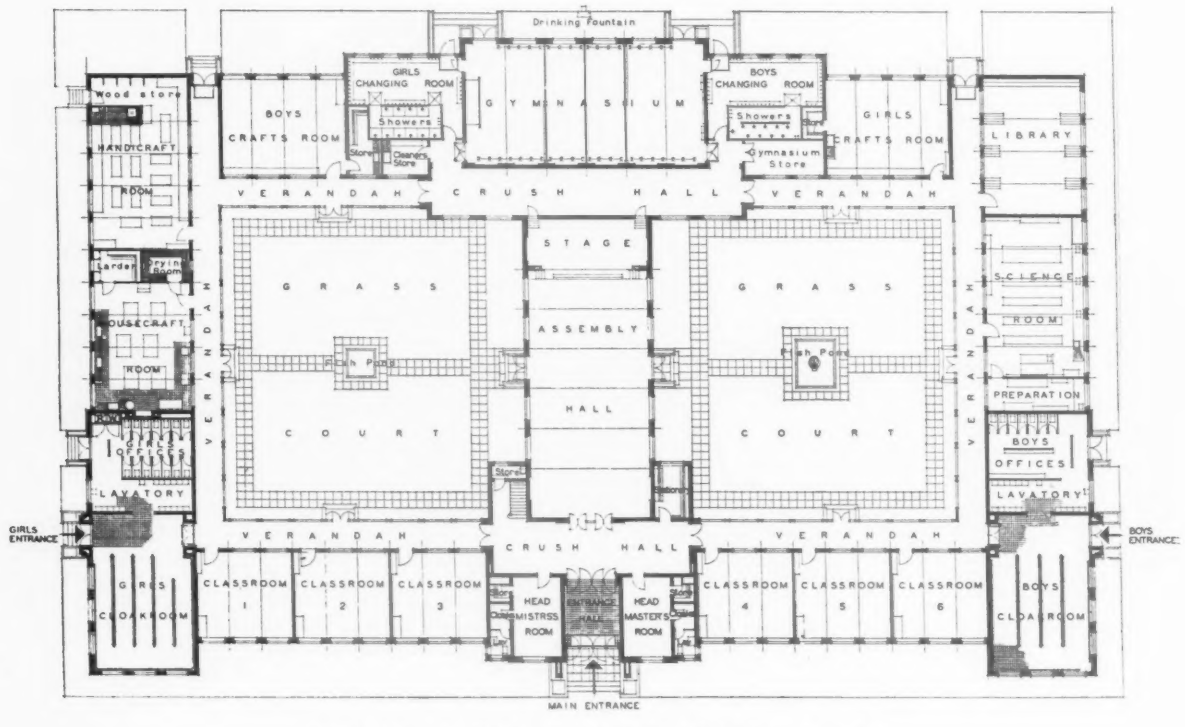
SITE PLAN

GENERAL AND SITE—*The King Ethelbert Central School is the third to be opened in the borough this year, and is the last of the new council schools under the scheme of reorganization. It is situated on a site—purchased in 1936 at a cost of £2,500—of sixteen acres, and is provided with a fully equipped canteen and caretaker's residence. A branch child-welfare clinic is provided in a separate building. The frontage to Canterbury Road has been laid out as decorative gardens, and the school garden, one and a half acres in extent, lies between the minor buildings and the school playing field, which occupies the 10 acres behind the school buildings. The layout and general design of the school buildings have been influenced by the site levels and subsoil. There is a fall of some 20 ft. in the site from west to east and the loose top soil was found to extend for varying depths from 2 ft. to 10 ft., suggesting that at some period brick earth had been excavated and loose soil filled in. Having regard to the extensive ground work necessitated by the surface levels and varying depths to which the foundations had to be taken, it was decided:* (a) *to separate the school buildings into three detached blocks, each at different site levels;* (b) *to design each block as compactly as possible;* (c) *to adopt a form of construction which would admit of piers and beams for foundation work.*

Above, a view from the north-west.

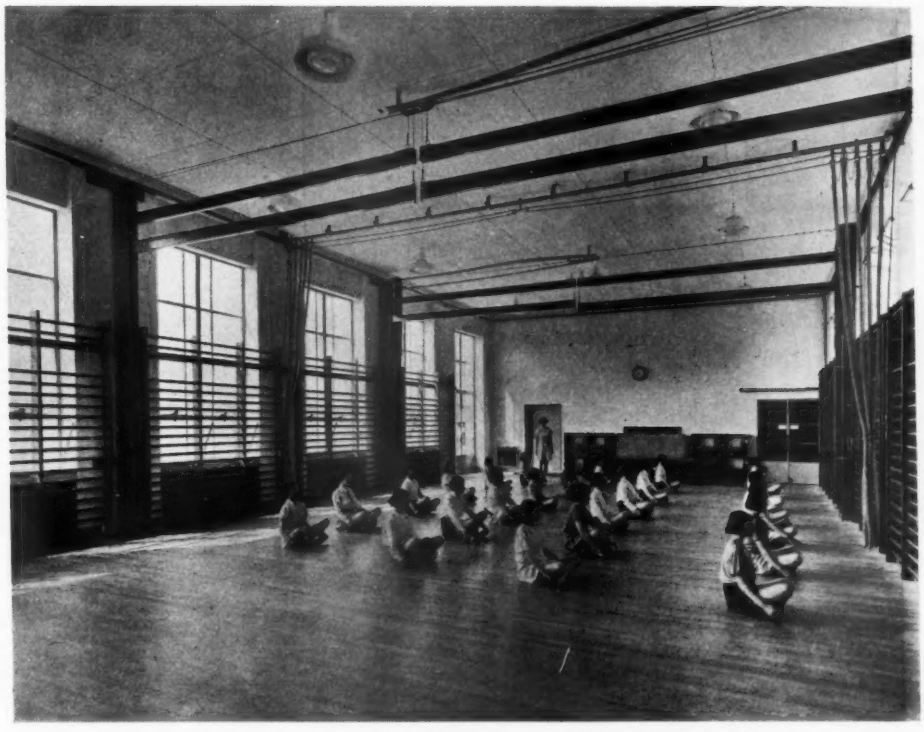
KING ETHELBERT CENTRAL SCHOOL.

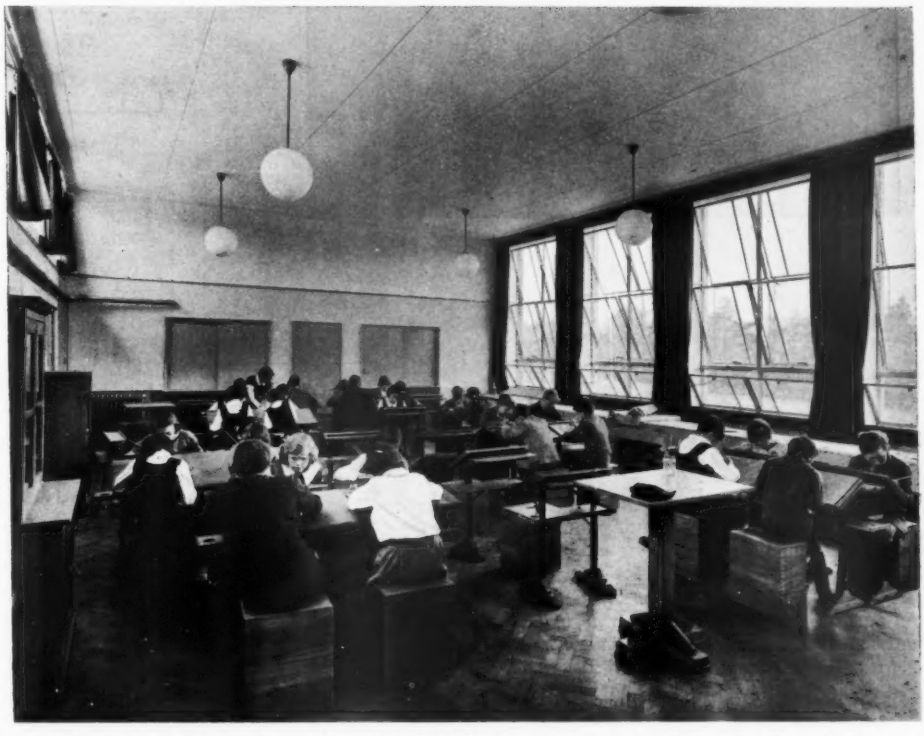
GENERAL AND SITE (*cont.*)—*The main school block has therefore been designed on the quadrangle principle to conserve space, the site has been levelled out for each block of buildings and mass concrete piers with reinforced concrete beams and suspended floors are provided to that part of each building on made-up ground. The clinic block, however, is carried entirely on piers and beams as the site of this building was in a hollow and the main drainage necessitated a higher floor level than the mean level of the site on which it was built.*
Above, a view of the west quadrangle.



GROUND FLOOR PLAN OF SCHOOL BLOCK

MARGATE: BY W. R. H. GARDNER





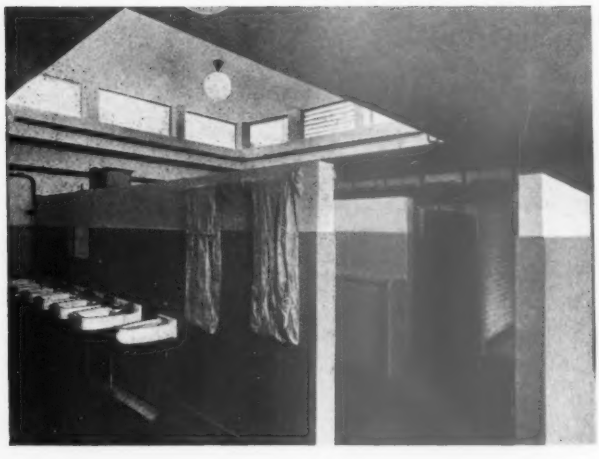
CONSTRUCTION AND EXTERNAL FINISHES—*The buildings have solid concrete or suspended reinforced concrete floors, cavity brick walls, reinforced concrete flat roofs, metal windows and metal main doors. The flat roofs have been insulated with 1 in. cork under the asphalt. The corridors have reinforced concrete roofs with the external wall formed of narrow reinforced concrete piers.*

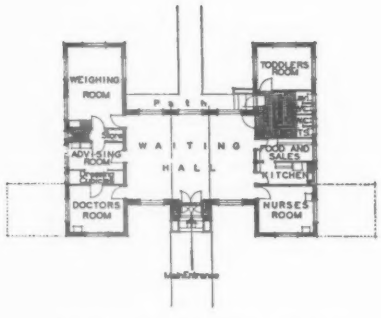
ACCOMMODATION—*The school buildings are planned to accommodate 440 boys and girls.*

The photographs show the gymnasium and a typical classroom.

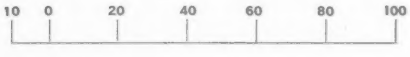
CENTRAL SCHOOL, MARGATE

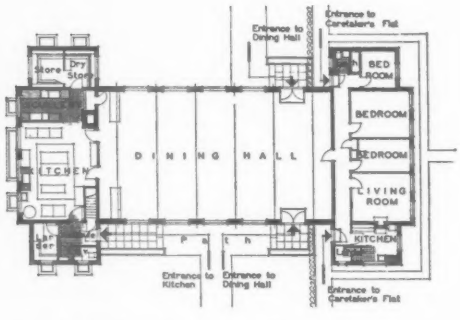
DESIGNED BY W. R. H. GARDNER



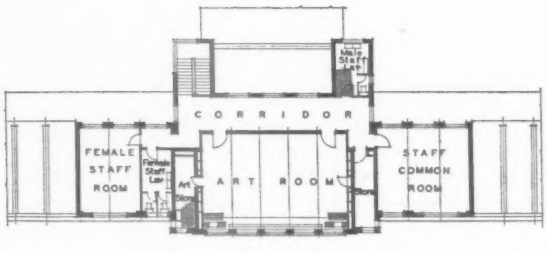


GROUND FLOOR PLAN OF CLINIC BLOCK





GROUND FLOOR PLAN OF DINING HALL BLOCK



FIRST FLOOR PLAN OF SCHOOL BLOCK

INTERNAL FINISHES—*The ceilings are of wallboard, which was fixed in position as permanent shuttering to the reinforced concrete, and finished with a skimming coat of plaster. The walls are plastered in lime and hair. The dadoes are covered with linoleum in the classrooms, etc., and tiled in the cloakrooms and lavatories. The floors are of teak blocks generally with oak strip flooring in the gymnasium, Columbian pine flooring in the handicraft room, tiled floors in cloakrooms, lavatories and under sinks, and asphalt non-slip paving in shower compartments.*

HEATING—*Radiators and hot water pipes on the low-pressure hot water system, and the hot water is supplied through calorifiers. Two boilers are mechanically stoked with coke fuel.*

The photographs show : top, the handicraft room ; and the boys' lavatory.

The general contractors were Rice and Son, Ltd. ; for list of sub-contractors see page 550.

LETTERS FROM READERS

Evacuation of Children

SIR,—The Education Officer of the L.C.C. has asked me to find sufficient owner-drivers with their cars to evacuate about 1,400 nursery school children in the event of an emergency. Each driver should have an adult passenger with him to keep the children (age 2–5) happy during the journey.

Those offering should be prepared to state over the telephone the following particulars, which would be taken down at my office (Vic. 8785) or home (Welwyn Garden 816).

Applicants should state the number of the car and also state whether they are available at any hour. If not, they are requested to state how long it would take to deliver a message from the nearest 'phone. Applicants should also inform me the size of car (it is assumed that a 10-h.p. car can take 4 small children, driver and passenger).

Full particulars will be sent to all volunteers, who should hold themselves in readiness if the call appears to be urgent.

When the children have been left in their new surroundings the driver or passenger might like to drop parents a line to tell them how the small boy or girl was left in his temporary home. Other things may occur to those engaged, and the job is clearly one which individuals can do and the personal contact should be helpful in a time of crisis.

We still all hope that the need for evacuation will not arise, but at the same time the position is so critical that I should be glad to have offers by telephone immediately.

I shall be at the office throughout the day and messages can be left day or night at my home telephone number.

I should add that drivers coming from the North of the Thames will be asked to evacuate from the North London schools, and those living in Kent or Surrey from schools South of the river.

Distances to the billets are not likely to exceed 50 miles. P. V. MAUGER

Professor Reilly and the Architect's House

SIR,—We have all dreamed of the same thing—that some day it might be possible to build a house for perfect contentment. To each individual that house would take a different form. To Chermayeff, detached from the traditions of this country, and unembarrassed with the complexities of a national life, such a house takes the shape of a "lovely, crystal, white and golden cedar thing." To one who is part of a slowly developing civilization in familiar surroundings, such a house would embrace a wide panorama of history. It would be incomplete if it did not give some hint of ancestry and foolish if it did not achieve the practical comfort which modern ingenuity has placed in our reach.

To take as a theme only the mechanical phase which looms large in the foreground, but which is really but a trivial incident in our national development, seems a most unsatisfactory approach to the ideal home.

Remembering the Professor Reilly who, in my young days, made a powerful force of the Liverpool School by means which he seems to scorn in his second youth, I wonder that instead of seeing "a pretence that we are living in a Georgian era," he does not see that greater pretence, rampant among the younger men, that we are *not* living in a Georgian era—a fact that is literally true as it happens, and so nearly true historically as to need little more than the addition of baths, h. & c., and a few power plugs, to complete the perfect modern home.

By the way, is it telling tales to let out that Professor Reilly was seeking diligently for an old Georgian house of character in a certain country town, only two or three years ago?

G. MAXWELL AYLWIN

Salaried Architects

SIR,—Some months ago a certain mild excitement was noticed among members of the profession on the occasion of the elections to the Council of the R.I.B.A. A larger number of candidates than usual took the field, and included a surprising proportion of official and salaried architects. The nominations of these had been the result of a sudden burst of enthusiasm among salaried members who were seeking representation.

Since then, however, at least one group of official and salaried assistants have reason to doubt their enthusiasm and begin to wonder if it would not be better to keep to the known rather than secure doubtful representation. This group comprises the architectural staff of an official architect, who is also a member of the R.I.B.A. Official Architects' Committee.

One imagines that this distinction would indicate that the improvement of status of the salaried architect would be to the forefront of his policy. Unfortunately, the reverse is the case, for recently, in spite of the receipt of the A.A.S.T.A. Charter, the members of his staff have received instructions that they are to cease inspecting and supervising work in progress unless they are accompanied by a "technical" officer whose "practical" experience would be available to the architectural assistant. This to apply to all assistants irrespective of position, age or experience, and a lack of confidence in the ability of the architectural assistants to deal with "practical" matters is implied.

The position is particularly galling, as the members of the "technical" section are ex-clerks of works without "technical" qualifications. This instruction was resented by the staff, and they dared to hold a meeting to select representatives to present their point of view to the architect. Before, however, the deputation could see him, rumour—or, more correctly, a leakage via the usual channel—reached his ears, and without waiting he called a number of the staff singly into his office, demanded to know the "ringleader," and threatened drastic action if further meetings took place.

This dictatorial attitude has shaken the staff, and if this is the general character of "official" architects, then the unfortunate salaried assistant would do well to consider carefully before he hastens to change his representation.

"SALARIED"

P. V. MAUGER, A.R.I.B.A.

G. MAXWELL AYLWIN, F.R.I.B.A.

"SALARIED"

C.P.R.E.

The eleventh national conference for the Preservation of the Countryside will take place at Chester under the presidency of the Earl of Crawford and Balcarres, K.T., from October 13–16. Following is the programme of events:

Thursday, October 13, at 9 p.m. Reception in the Town Hall.

Friday, October 14, at 10.15 a.m. Address of welcome by the Mayor and opening of the Conference by the Lord Lieutenant, Sir William Bromley Davenport, followed by the first session.

"Agriculture and the Countryside." Professor R. G. Stapledon will address the Conference, and move a resolution.

Friday, October 14, at 2.30 p.m. Second session. "The Approach to the Town (Unsightly Development, Advertisements, etc.)." Mr. H. G. Strauss, M.P., will address the Conference and move a resolution.

Friday, October 14, at 9 p.m. An informal debate on general matters will take place in the Grosvenor Hotel.

Saturday, October 15, at 10.30 a.m. Third session. "National Planning." The Rt. Hon. Lord Justice Scott will address the Conference and move a resolution.

Saturday, October 15, at 2 p.m. Buses and cars will leave Chester for the Bebington housing estate, then run via Mersey Tunnel and the Scotland Road rehousing scheme (Liverpool Corporation) to Speke Hall, returning to Chester via Widnes and Runcorn. Tea will be arranged.

Tours of Chester, will also be available for those not taking part in the above-mentioned tour.

On Saturday evening, after dinner, informal discussion groups will be arranged in the Grosvenor Hotel.

Sunday, October 16. Two all-day tours.

NAME.....				WEEK ENDING.....							
JOB	NATURE OF WORK	JOB NO	COST FOL	TOTAL	M	T	W	TH	F	S	OVER TIME
TOTAL TIME ON JOBS											
OFFICE TIME NOT SPENT ON JOBS											
TOTAL TIMES					7	7	7	7	7		

SIGNATURE

..... HOURLY RATE POSTED & CHECKED

THE COST OF PRACTICE

By Ellen Heckford

Every private architect is directly, or, if an assistant, only slightly less directly, concerned with the cost of practice. The ordinary books of the firm show yearly or half-yearly whether the practice as a whole is prospering or otherwise. But they do not show anything of the financial position concerning any single job: whether it is going smoothly and profitably or has been altered and altered again until, executed or not, it is bound to be a loss.

All architects would like to discover a system which would allow them to see, at any moment in a job's progress, how it stands financially. But it must be a system which is simple and cheap to establish and keep going.

Miss Heckford, the partner responsible for office management and finance in a medium-sized firm, describes in the following article a system which fulfils these conditions and has been successfully used for some time.

SO involved is the work of the private practising architect at the present day that the last point on which he wishes to spend time is the running of his own office. He would like to regard the office as he probably does his car: machinery to get him somewhere smoothly and quickly. But too many offices refuse to be regarded in this way. Periods of heavy work are followed by periods of slackness; times of financial prosperity by times of perilous cash shortage. In an office of this type the architect can find little time for the abstract study of design, and to speak bluntly, he has only his own mismanagement to blame. If an office is run on sound principles of economics and organisation, it need only take up a small fraction of the principal's time, and yet provide him with all the assistance he needs.

THE PRINCIPLES OF ARCHITECTS' COSTING

Perhaps the most important consideration of all is the production of work at a rate which is reasonably economical of both time and money. It is only in this way that the principal will have leisure for the study of design, and incidentally for the finding of new work; and it is only in this way that he can make a large enough margin of profit to allow for the building up of a cash reserve.

How can a "norm" be established for the time in which current work should be carried out?

First by finding out the cost of each individual's work. This is not so difficult as it sounds. Every office has an annual Profit and Loss Account, and from this the approximate annual expenditure can be taken. If we add to this a minimum drawing for each partner, we shall find out how much a firm must earn to pay its way. To find the annual cost of the individual's time we divide this sum among the architect members of the firm, and from that point it is a simple matter to proceed to weekly and hourly costs.

Once these have been found we can put an end to work in the dark. We can *know*, instead of vaguely guessing, such enormously valuable things as:—

1: How much time should be put into a £5,000 job in order to yield the right proportion of the total sum?

2: Whether any job is, up to date, a "profit" or a "loss."

3: The state of all jobs at any given moment.

4: Which jobs ought to be speeded up.

5: Which members of the office are weak links and which are strong.

Now before anyone decides that an architect's office is not a pork factory, and this scheme must fail because there is no way of establishing the "value" of an hour's work by a brilliant assistant relative to a stupid partner, it must be pointed out that no attempt is being made to establish absolute values, but a working system of assumed values which, art or no art, *must* be maintained.

To make the method of arriving at individuals' costs quite clear, I will

Above is the Time Sheet used in the system described. Filling up Time Sheets is generally considered tiresome. But it is only from these sheets, which can be filled up in five minutes a day, that the essential data can be obtained. Every architect member of the firm, including partners, must therefore complete his sheet.

explain in detail how it is done in a particular case. To take a small firm, say the annual expenditure as shown by the last profit and loss account, including minimum salaries for partners, but not including any expenses chargeable to clients, is £2,000. The firm, we will say, consists of two partners, two assistants, a secretary and an office boy. To cover expenses, then, the two partners and two assistants must, between them, produce work to the value of £2,000 during the year. If the value of the time of each of the four were equal, they would each have to produce an output to the value of £500 during the year. In fact, however, the ratio would probably work out more as follows :—

Senior Partner		Junior Partner		Senior Assistant		Junior Assistant
5	:	4	:	2	:	1

The working out of these ratios depends on a number of factors, such as speed of work, quality of work, salaries received, etc., but it can be judged pretty accurately by a responsible person intimate with the firm's workings.

Now, if all these four men worked on current jobs all the time, to find the value of the junior assistant's work during the year, all we would have to do would be to add together the four ratio numbers making twelve, and divide this number into the total annual expenditure. The value of the others' time would then follow automatically. But some members of the firm—usually one or more partners—must spend time studying design, getting work, and managing the office, so that though senior partner's work may be worth five times as much as junior assistant's, his actual output may be only three times as much. For the purpose of finding the value of junior assistant's time, therefore, we would divide not twelve but ten into the annual expenditure. By doing this we find that the value of junior assistant's work, or to speak more accurately the value of his unit, is £200 a year.

The next stage is to find the cost of a unit for one week, and finally for one hour. In this imaginary firm, we will say, partners and staff take a fortnight's holiday a year. Allowing for the six public holidays and approximately a week per person for illness, the working year can be regarded as having 48 weeks. This will make the cost of a unit of work for one week £200 divided by 48, which is £4 3s. 4d. To simplify the figures we will take it that the average number of hours worked in a week is the high one of 40. This will make the cost of a unit per hour £4 3s. 4d. divided by 40, which is 2s. 1d.

We now have the value of each man's work as follows :—

Senior partner 5 × 2s. 1d. = 10s. 5d.
Junior partner 4 × 2s. 1d. = 8s. 4d.
Senior assistant 2 × 2s. 1d. = 4s. 2d.
Junior assistant 1 × 2s. 1d. = 2s. 1d.

and if their time is costed at these rates, and they work for 12 months with two weeks' holiday, six public holidays, and a week's sick leave, the total costing figure for the year will equal the total costs, which are £2,000. Of course, no business stands still and a watch must be kept to see whether expenses and individuals' output are remaining the same.

Estimating

Once the individual costing rates have been found, it is a simple matter to calculate the time which should be spent on any job. For example, it is obvious that a man whose cost is £20 a week could work for five whole weeks on a job worth £100 in fees, and just clear his expenses ; and though in practice each individual may be dealing with several jobs, and each job may be dealt with by several individuals, the principle of this example remains true, and provides a simple basis of calculation.*

Equipment

With suitable equipment a costing system on these lines is very speedy to carry out. Half an hour a week by the principal and an hour and a half by the office boy should be ample. The equipment I am going to recommend is not costly, and would not cost more than a pound or two a year.

Time Sheets

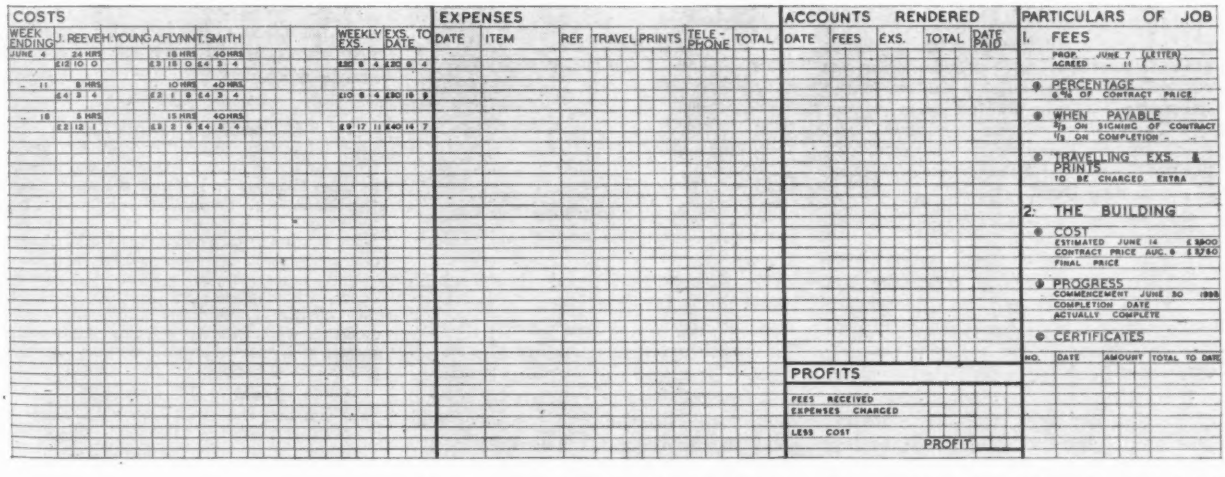
A time sheet I have found most suitable for the work is shown on p. 530, and is an adaptation from the one recommended by Sir John Burnet,

* *Example of typical Estimating Calculation*

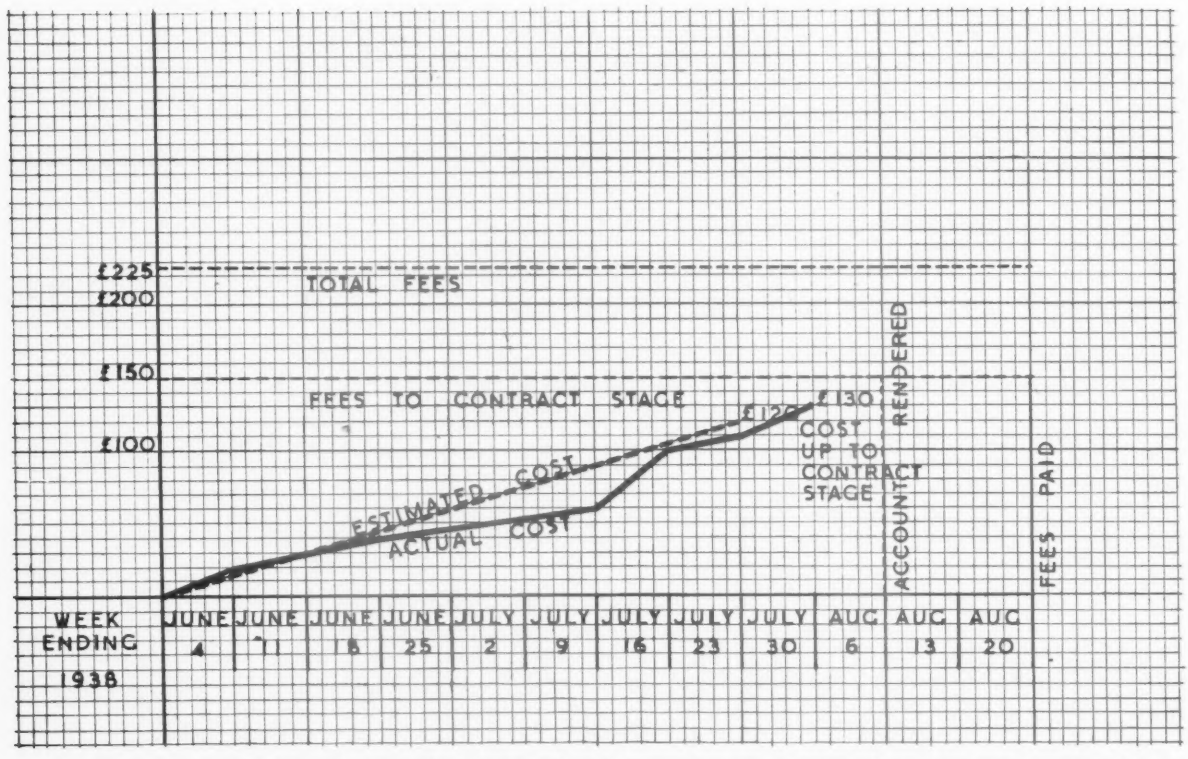
Fees to contract stage £150.
Senior partner (10s. 5d. an hour) 2/5ths time.
Senior assistant (4s. 2d. an hour) 2/5ths time.
Junior assistant (2s. 1d. an hour) whole time.

2/5ths of 10s. 5d. + 2/5ths of 4s. 2d. + 2s. 1d.
= 4s. 2d. + 1s. 8d. + 2s. 1d.
= 7s. 11d. an hour, or £15 16s. 8d. a 40-hour week.

So that the work must be complete, up to contract stage, in 9½ weeks to cover costs, or in 8½ weeks to provide a 15 per cent. profit.



A page from the Costing Book. The weekly totals of work on each job are transferred from the Time Sheets onto this page. The expenses incurred and the terms agreed are also entered on this page. Since an allowance for overheads (rent, drawing materials, typists' salaries, etc.) is included in the hourly rate of each partner or assistant, such a page shows the financial state of any job at any moment.



The Cost Graph. This is the culminating point of the system and shows visually what the page in the Costing Book shows in figures. The lines are drawn in colours. The graph shows at a glance how much has been spent already on the job, what margin is left for future work and how fast payments are coming in.

With such graphs hung in a convenient place the whole office can see immediately which jobs are behindhand, which ahead and which look like being heavy losses.

Tait and Lorne in their Information Book. It will be noticed that :—

1 : There is a column for "Nature of Work." This is of use in judging the comparative value of individuals' time, which will be calculated partly according to salary, but still more according to output.

2 : The comparative times spent on jobs and otherwise are clearly shown. A study of these over a period will make it possible to work out the average proportions in the case of any individual, so that time not spent on jobs can be allowed for.

3 : There is a column for total hours spent by each individual on each job during the week. These totals are posted in the Costing Book.

Costing Book

If the firm is a small one where expenses are a serious consideration, the Costing Book can be one with a stock ruling of plain (not cash) columns. For 30s., however, or less, it is possible to have a book specially ruled to show the costing figures, notes on fees, chargeable expenses, accounts rendered and paid, and the total profit or loss figures on the job (p. 531). The book can be alphabetically indexed, and is a great saving of time and increase of efficiency over the several cheaper books which would otherwise be used.

The posting to the Costing Book is a very simple matter, and could be adequately done by a careful office boy :—

Each week the total hours spent on each job by each individual are entered in the appropriate column. Below each the cost of the work is filled in (this is a speedy matter if a ready reckoner is used), and the total cost on the job for the week and to date are filled in in the two final columns. The total figures on each job every week are copied in at the end of the book, and added together. If they differ widely from the estimated cost per week, the reason must be traced, and if necessary the costing rates adjusted.

Graphs

The weekly job totals in the Costing Book are drawn out as graphs, as shown above.

The dotted horizontal lines, which show the total fees payable for each stage of the work, are drawn in red. The week-by-week costs are shown by a green line, and the accounts rendered and fees received are shown by a blue line, dotted in the first instance, and solid in the second. The graphs are filed in a flat folder which hangs neatly on the wall, and provides very speedy reference. They are the culminating point of the costing system, for they show at a glance the position of each job, and provide a warning if any job is being done uneconomically.

I hope that this article has made one or two readers, particularly partners in small firms, feel that it would be worth while to introduce a simple system of costing into their offices. As far as I can see such a system is essential if an architect's office is to be run on sound economic lines, and it is only an office which is sound economically that can be sure of a long and stable existence.

●

INTERIOR DECORATION

An interesting enlargement of the present scope of the Reimann School is the addition, as from October 1, 1938, of a Department of Interior Design. Established in February, 1937, the school has hitherto covered the four main fields of display and exhibition work, commercial art, fashion and dressmaking, and photography, latterly including film. The new fifth department of interior design is under the leadership of Mr. J. Duncan Miller, the interior designer, who, with his full-time staff, will be assisted by a panel of important visiting lecturers, planned so as to cover all aspects of the subject.

CHANGE OF ADDRESS

The Building Industries National Council has removed its offices to 85 Gloucester Place, W.1. Telephone Nos. : Welbeck 3335-6.

Messrs. Jordan and Handisyde, F/A.R.I.B.A., have removed their offices to No. 9 Gower Street, W.C.1. Telephone No. (as before) : Museum 8483.

PROFESSIONAL ANNOUNCEMENT

Mr. Arthur Bailey, A.R.I.B.A., has commenced practice at No. 12 Gray's Inn Square, W.C.1. Telephone No. : Chancery 8169.

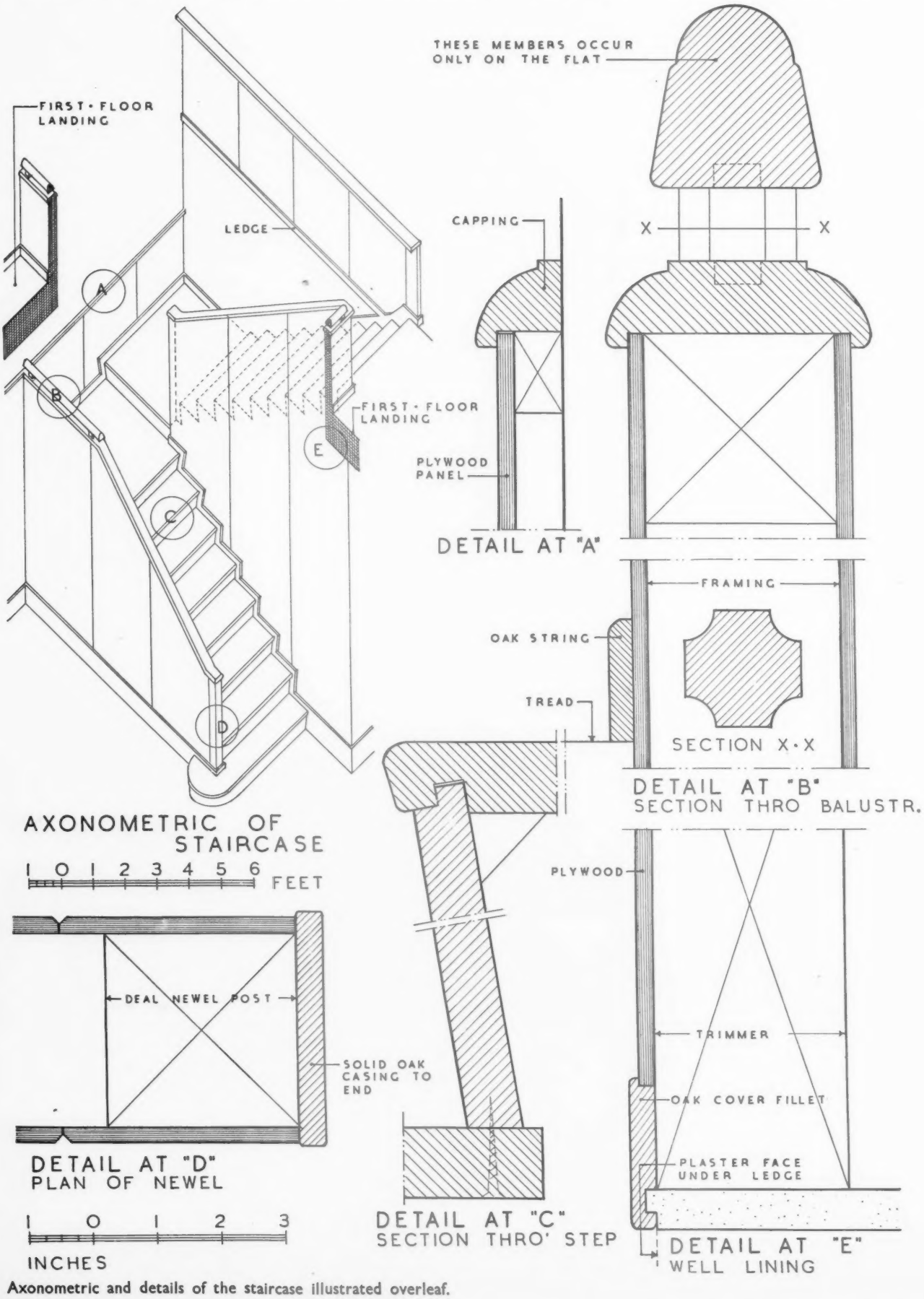
WORKING DETAILS : 687

STAIRCASE • HOUSE AT COBHAM, SURREY • OHN GREY

The staircase illustrated has been re-constructed in an existing building. The staircase is constructed in oak, treads and risers being stained black and polished. The balustrading is panelled in oak plywood with V joints, natural finish and wax polished, with cappings and strings in solid oak.
Details are shown overleaf.

WORKING DETAILS : 688

STAIRCASE • HOUSE AT COBHAM, SURREY • JOHN GREY



Axonometric and details of the staircase illustrated overleaf.

The Architects' Journal Library of Planned Information

INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

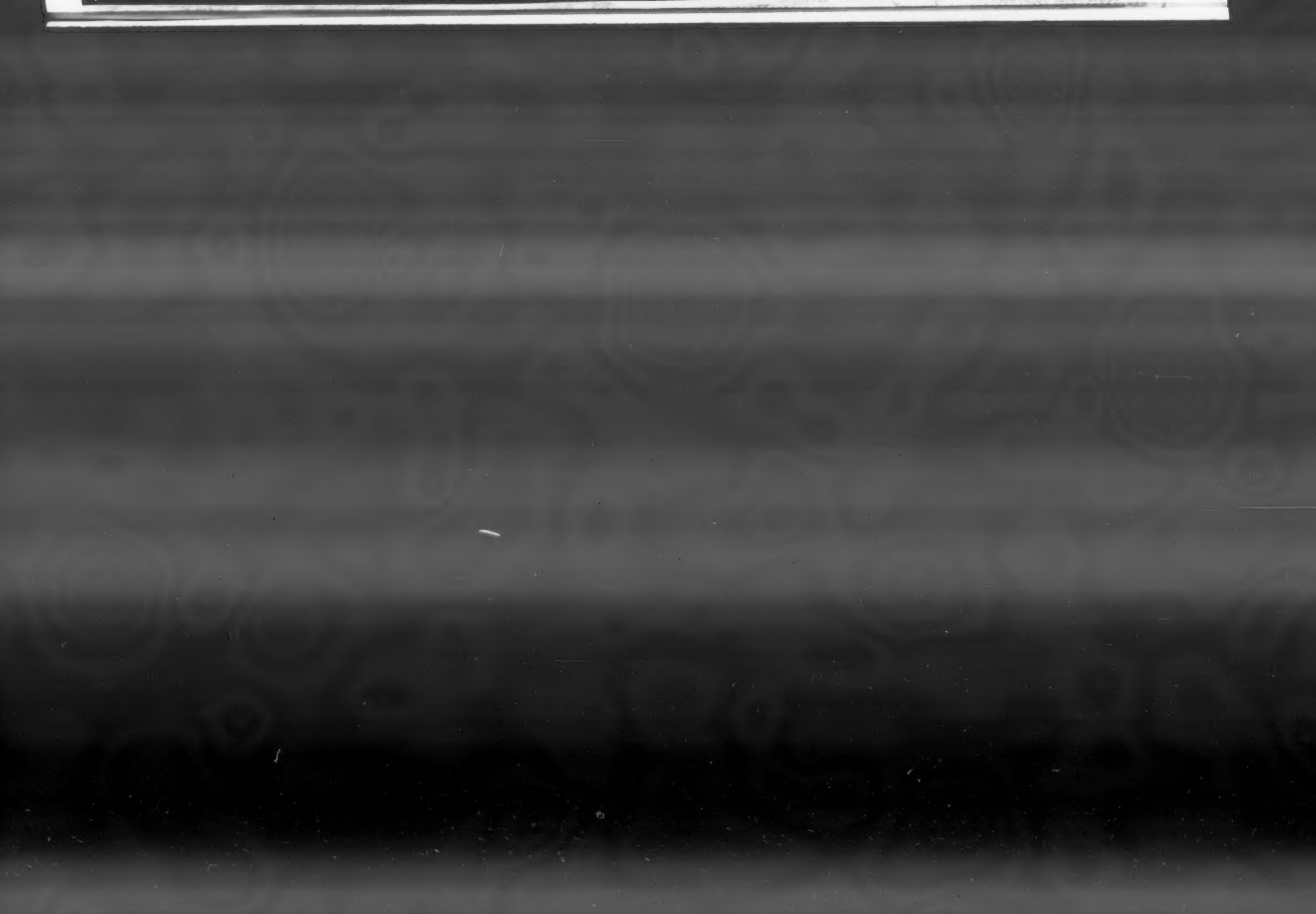
665 Building Equipment

666 Sound Insulation

In order that readers may preserve their Information Sheets, specially designed loose-leaf binders are available similar to those here illustrated. The covers are of stiff board bound in "Rexine" with patent binding clip. Price 2s. 6d. each post free.

Sheets issued since Index :

601 : Sanitary Equipment
602 : Enamel Paints
603 : Hot Water Boilers—III
604 : Gas Cookers
605 : Insulation and Protection of Buildings
606 : Heating Equipment
607 : The Equipment of Buildings
608 : Water Heating
609 : Fireplaces
610 : Weatherings—I
611 : Fire Protection and Insulation
612 : Glass Masonry
613 : Roofing
614 : Central Heating
615 : Heating : Open Fires
616 : External Renderings
617 : Kitchen Equipment
618 : Roof and Pavement Lights
619 : Glass Walls, Windows, Screens, and Partitions
620 : Weatherings—II
621 : Sanitary Equipment
622 : The Insulation of Boiler Bases
623 : Brickwork
624 : Metal Trim
625 : Kitchen Equipment
626 : Weatherings—III
627 : Sound Insulation
628 : Fireclay Sinks
629 : Plumbing
630 : Central Heating
631 : Kitchen Equipment
632 : Doors and Door Gear
633 : Sanitary Equipment
634 : Weatherings—IV
635 : Kitchen Equipment
636 : Doors and Door Gear
637 : Electrical Equipment, Lighting
638 : Elementary Schools—VII
639 : Electrical Equipment, Lighting
640 : Roofing
641 : Sliding Gear
642 : Glazing
643 : Glazing
644 : Elementary Schools—VIII
645 : Metal Curtain Rails
646 : Plumbing
647 : Veneers
648 : U.S.A. Plumbing—V
649 : U.S.A. Plumbing—VI
650 : Ventilation of Factories and Workshops—I
651 : School Cloakrooms (Boys)
652 : U.S.A. Plumbing—VII
653 : Plumbing
654 : U.S.A. Plumbing—VIII
655 : School Cloakrooms (Girls)
656 : Ventilation of Factories and Workshops—II
657 : Floor Construction
658 : Partitions
659 : Equipment
660 : Asbestos-Cement Decorated Sheets
661 : Aluminium
662 : Sound Resistance
663 : Building Equipment
664 : Sheet Lead Work



764

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

DIAGRAMS SHOWING DETAILS OF CONSTRUCTORS 'ADJUSTEEL' SHELVING COMPONENTS:

Components consist of posts and shelves, to which may be added backs, uprights, bin fronts, bin dividers, doors, drawers and other accessories, to adapt the shelving to the storage of any specific office or factory commodity.

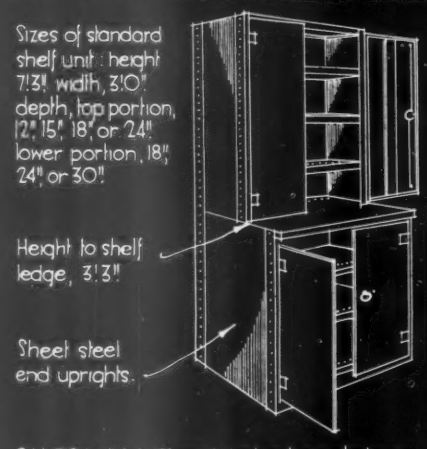


DIAGRAM 1: Closed ledge type shelving provided with standard steel hinged double doors bolted direct to angle posts.

Any angle post may be fitted with steel cover channels if desired.

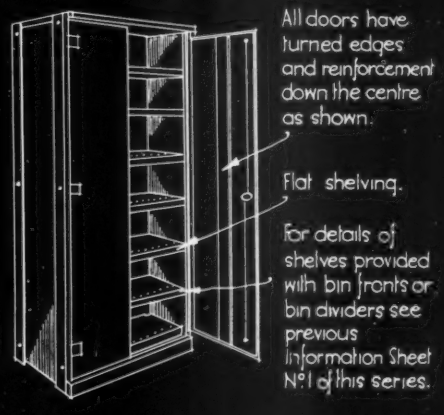
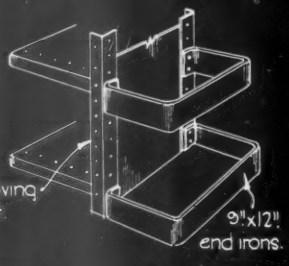
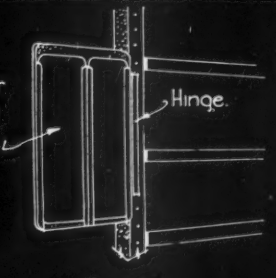
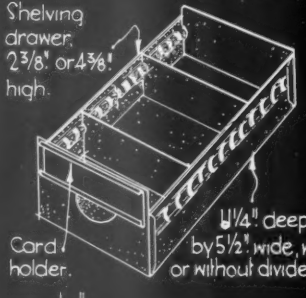
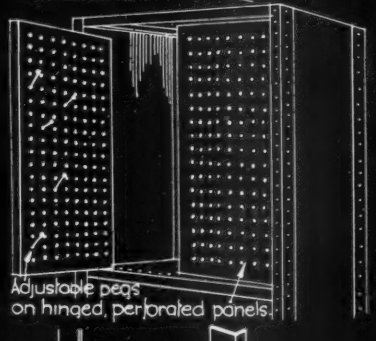


DIAGRAM 2: Standard closed type shelf-unit provided with double doors, cupboard top, plinth, and cover channels, to form a cupboard.

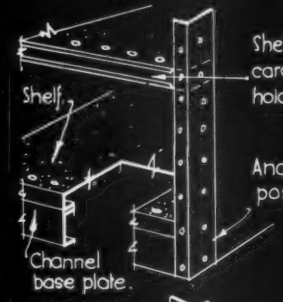


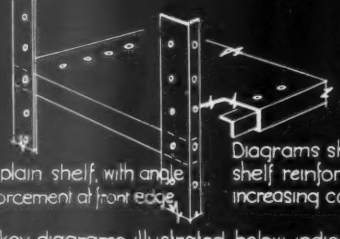


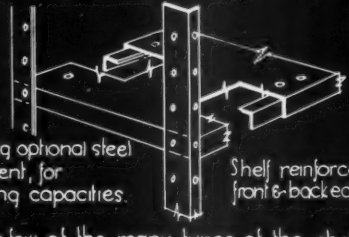


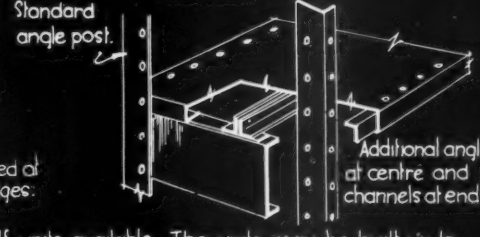


Method of fitting part of a standard shelf unit for storage of tool cutters or gaskets.

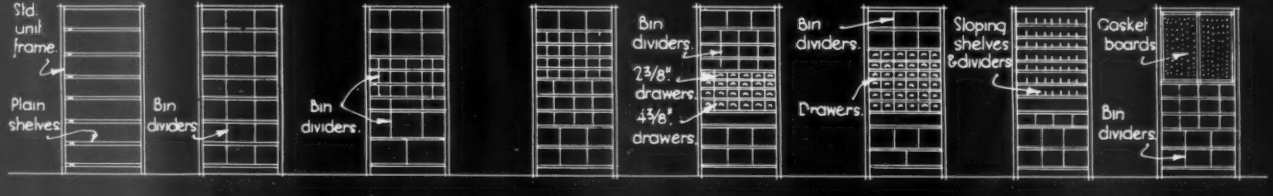








The key diagrams illustrated below indicate a few of the many types of the shelf units available. The units may be built up to almost any arrangement by the use of standard components shown on Sheets Nos 1 & 2.



Information from Constructors Ltd.

INFORMATION SHEET: BUILDING EQUIPMENT: SHELVING UNITS - ADJUSTABLE STEEL: No 2.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Brian C. Boyne.

THE ARCHITECTS' JOURNAL
LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

• 665 •

BUILDING EQUIPMENT

Product : Shelving Units—Adjustable Steel.

General :
This is the second of a series of Sheets dealing with Constructors adjustable shelving units.

Material :
Steel.—The main advantages of steel shelving are its economy of material, simplicity of design and space-saving qualities. Fire risk is practically eliminated, depreciation is negligible, and resistance to damp, rot and vermin makes this form of storage permanently satisfactory under almost any conditions. In addition, adjustability of the units, and interchangeability of components, enable steel shelving to be re-used for almost any purpose after alterations or removals.

Unit Construction :
Each unit or bay is complete with its own four posts. Thus re-arrangement or removal of any one of a range of units is accomplished simply by disconnecting without disturbance of shelves or other components.

Stacks consist of two or more bays bolted together, and can be either single-faced, accessible from one side only, or double-faced, accessible from both sides. Double-faced stacks consist of bays of the same width and height placed back to back, with or without a common back between, and may be any number of bays in length. These require a gangway on each side.

Components :
Note.—For description of standard shelving, angle posts, sheet backs and uprights, bin fronts and dividers, etc., see Sheet No. 663.

A.—*Doors.*—Standard hinged doors of reinforced sheet steel are available for any type of shelving unit. The doors, for fixing to either parallel or ledge-type units, are fastened direct to the angle uprights. Furniture includes strong butt hinges, three-way locking bar, and flat key lock with duplicate keys.

B.—*Cover Channels.*—The steel angle posts of any type shelving unit can be fitted with pressed steel cover channels to conceal the shelf adjustment holes if desired.

C.—*Base Plates.*—These pressed steel channels may be fitted to all units where it is required to fill the space between the bottom shelf and the floor.

D.—*End Irons.*—9-in. by 12-in. end irons can be bolted to the end of any 12-in. deep shelving unit to provide for the vertical storage of small quantities of awkward articles, such as shafting, short rods, tubing, etc.

E.—*Sloping Shelves.*—Standard shelves on a 2-in. slope may be used in place of flat shelving if necessary. Each sloping shelf is normally supplied with eight 2-in. high dividers. Shelves are bolted to the angle posts in the usual way.

F.—*Location Board.*—This component can be fitted to all types of shelving unit, and its use is recommended for both large and small installations. The board simplifies the recording of stock and enables any part to be located immediately. Ruled index and location cards can be supplied if desired.

G.—*Drawers.*—Standard pressed steel drawers, fitted with recessed pulls and card holders, are designed for use with Adjusteel shelving, described on Sheet No. 663. The drawers are available to suit openings on shelves at 4-in. and 6-in. centres, and provide convenient storage for small parts. They are normally supplied with two adjustable dividers.

H.—*Hinged Gasket Boards.*—Shelving units may be fitted for the storage of milling cutters, gaskets, rings, etc., by having one fixed back panel and two front-hinged panels, complete with six dozen pegs readily adjustable to any position on the perforated panels. The panels occupy the upper portion of the shelving as shown on this Sheet.

I.—*Fixed Gasket Boards.*—For bolting to stack ends. The adjustable pegs give ample storage room for hanging gaskets, cutters, etc.

J.—*Label Holders.*—These are designed for attaching to the shelving, can be fixed without disturbing the unit, and extend the full width of the shelf, so that individual labels can be inserted immediately beneath the parts to which they refer.

K.—*Shelf Reinforcement.*—The carrying capacity of shelves may be greatly increased by the addition of standard optional reinforcements as shown in the sketches. For this purpose, 1-in. by 1-in. by $\frac{1}{8}$-in. steel angles are used at the front and rear flanges and at the centre of each shelf, while channel members in addition may be bolted to the posts beneath the shelf ends. The shelf fixing bolts are also used to secure the angle reinforcement.

Erection :
Unless otherwise stated, all shelving is delivered ready for erection by the customer on his clear site. Shelving should be erected one bay at a time, starting from the left, and each unit should be assembled flat on the floor directly in front of the space where it is to be placed, and then up-ended into position. Full directions for erection are supplied by the makers, or the makers will erect the shelving themselves.

Finish :
All shelving is finished in standard olive green stoved enamel. Other finishes can be supplied at special prices.

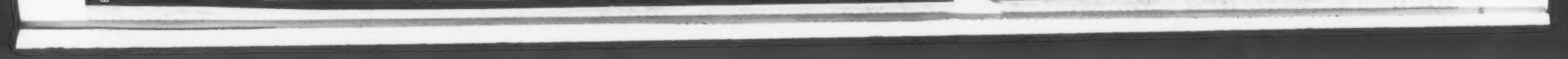
Prices :
Owing to the large number of arrangements available, the catalogue issued by this Company only includes a comparatively small number of priced units. Prices for other designs, and suggestions and layouts are available from the makers.

Previous Sheet :
The first sheet dealing with shelving units is No. 663.

Manufacturers : Constructors, Ltd.

Registered Office and Works : Nickel Works, Tyburn Road, Erdington, Birmingham

Telephone : Erdington 1616 (5 lines)
London, Glasgow, Manchester and Newcastle-upon-Tyne

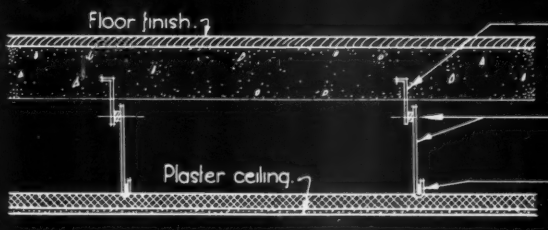


820. THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

THERMACOUST SUSPENDED CEILINGS FOR INSULATION AGAINST AIR BORNE SOUND:

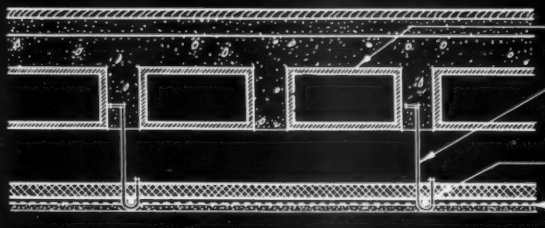
THERMACOUST WIRED CONTINUOUSLY TO LIGHT STEEL FLATS ON EDGE.

(A.)



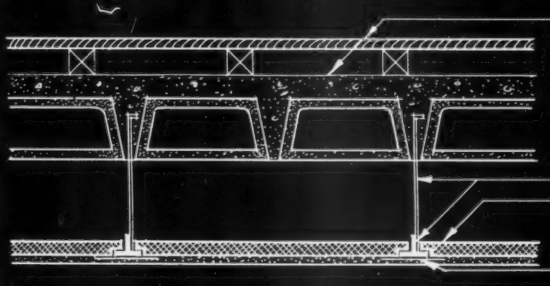
THERMACOUST LAID ON LIGHT STEEL RODS AND RABBIT-WIRED BELOW.

(B.)



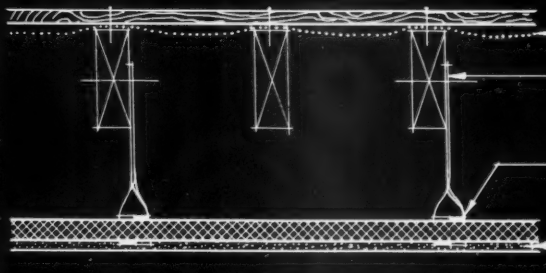
THERMACOUST REBATED OVER CONTINUOUS TEES FOR HEAVY BEARING CONDITIONS.

(C)



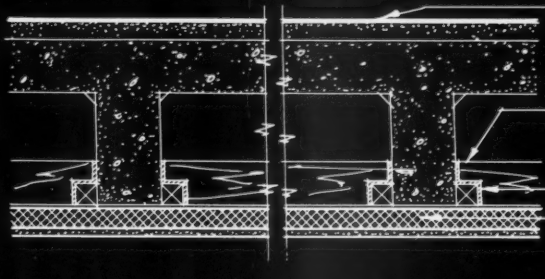
THERMACOUST CLIPPED IN POSITION BELOW WOODEN FLOOR.

(D)



THERMACOUST NAILED DIRECT TO ISOLATED WOOD FLOOR JOISTS.

(E.)



Information from Thermacoust Products Limited.

INFORMATION SHEET: CONSTRUCTIONAL USES OF WOOD WOOL FIBRE BUILDING SLABS: N°3

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

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INFORMATION SHEET

• 666 •

SOUND INSULATION

Product : Thermacoust Air Space Construction

General :

This is the third of a series of Sheets showing the various constructional uses of Thermacoust building slabs, and illustrates their use in suspended ceilings to insulate air-borne sound in new or existing buildings. Although the resistance of any homogeneous material to air-borne sound is mainly a function of its weight, the insulation of any of the common types of floor can be greatly increased by the provision of a suitable suspended ceiling, as indicated.

Material :

Thermacoust is manufactured from wood wool fibres cemented together under pressure. The inorganic content exceeds 80 per cent. and no magnesite is used. The material has been subjected to tests by the Building Research Station, the National Physical Laboratory and other authorities, and tests and reports relating to fire resistance, moisture movement, plastering, strength of joints, sound absorption and resistance, thermal resistance, etc., are open to inspection upon application to the Company.

A strong mechanical key is provided for either plaster or concrete, and condensation and cracking in the finished plaster work are reduced to a minimum. All thicknesses of slabs are readily cut with an ordinary hand saw.

Sound Absorption :

The following table sets out the sound absorption coefficients of Thermacoust slabs, 1 in. in thickness, for sound frequencies ranging between 250 and 2,000 cycles per second :—

Cycles per second ...	250	500	1,000	2,000
Absorption Coefficients	0·30	0·60	0·80	0·60

Support :

The usual thicknesses of slabs for suspended ceiling work are ½", ¾", 1" and 1½". The maximum spacing of the supports for slabs is as follows :—

½" slabs ... ... 16" centre to centre
¾" " ... ... 21" " " "
1" " ... ... 28" " " "
1½" " ... ... 32" " " "
1½" heavy duty slabs ... ... 42" " " "

Joints :

Wherever possible, joints should be butted and scrimmed. The following table sets out the treatment of the joints for the types of suspension shown on the Sheet :—

Diagram	End Joints	Side Joints	Remarks
A ...	Butted and scrimmed	Butted and scrimmed	End joints to occur between rows of flats.
B ...	Butted ...	⅜" joints filled with Gypsum plaster	End joints to occur between rods.
C ...	Butted and scrimmed	Sides rebated and butted to tee	Scrimmed under tee.
D ...	Butted and scrimmed	⅛" joints filled with Gypsum plaster and covered with scrim	End joints to occur between rows of clips.
E ...	Butted beneath joists and scrimmed	Butted and scrimmed	Nail to joists across width of slabs at 6" centre to centre.

Plastering :

The plastering may be carried out in one or more coats on examples A and E. Two coats are necessary on B, C and D. For single coat work any of the recognized gypsum setting plasters are recommended. For finishes comprising more than one coat, any of the ordinary ceiling mixes may be used. Cement mixes should be avoided on ceilings.

Weights and Prices :

The standard size of a Thermacoust slab is 7' 0" by 1' 11⅛", giving 1½ square yards of cover.

	STANDARD SLABS									HEAVY DUTY	
Thickness	½"	¾"	1"	1½"	2"	2½"	3"	4"	5"	1½"	2"
Price per yard (ex Works)	1/3	1/6	1/9	2/3	2/9	3/3	3/9	4/7	5/6	2/9	3/3
Weight per slab in lbs.	20	29	33	44	56	68	80	95	110	50	67
Weight per square yard in lbs.	14	19	22	29	37	45	53	63	75	33	44
Number of slabs per ton	112	79	67	50	40	34	28	24	20	45	34
Square yards per ton	168	118	100	75	60	50	42	36	30	68	52

The cost of carriage is additional depending on quantity of slabs and travelling distance. Slabs made for acoustical purposes and to special shape are subject to individual quotation.

Scrim.—Jute scrim of any suitable kind may be used and it can be obtained from the Company in rolls 4" wide, 100 yards in length, at 2s. 6d. per roll, sufficient for 50 square yards of Thermacoust.

Nails.—Wide headed galvanized nails of any suitable kind may be used or they may be obtained from the Company in 14-lb. bags at 6d. per lb. There are approximately 100—1¾" nails per pound and 90—2" nails per pound.

Workmanship :

Thermacoust slabs do not require especially great care nor specialist workmen for their erection. The Company will, however, undertake to fix or lay Thermacoust work in any part of the country and estimates will be given for this work on request.

If Thermacoust is being used in an unusual way or for some special form of sound treatment it is usually advisable for the Company's specialist staff to undertake the work.

Design :

The Company's Technical Department is prepared to advise upon the use of Thermacoust, to design special sound-resisting construction and to design the sub-structure, framing or suspended work required for the fixing of Thermacoust for special purposes.

It cannot be too strongly stressed that the fixing arrangements should be designed to suit the purpose of the insulation ; otherwise full value may not be obtained from the material.

Previous Sheets :

The first two Sheets in this series are Nos. 658 and 662 dealing respectively with partitions and the insulation of wood floors.

Manufacturers : Thermacoust Products, Ltd.

Address : 32 Victoria Street, London, S.W.1

Telephone : Abbey 6211

L I T E R A T U R E

GOTHIC SCULPTURE

Gothic Cathedrals. Described by Paul Clemen, photographed by Martin Hürlimann. [Blackwell, Ltd. Price 8s. 6d. net.

MARTIN HÜRLIMANN originally intended to produce a book on all the cathedrals of France. The present book deals only with four: Paris, Chartres, Amiens and Rheims. Four short chapters by Paul Clemen and four not very good plans precede the real stuff—the photographs of the buildings and particularly detail photographs of the sculpture.

Prejudice against Gothic, dim lighting and the habit of realizing Gothic detail as pattern only makes our generation miss far too often the excellence of Gothic detail. Mr. Hürlimann, in 160 photographs of these four cathedrals, shows us what most of us have missed.

The Vierge Dorée from the trumeau of the portico of the south transept at Amiens is typical of the poise and use of light and shade which the photographer has managed to emphasize.

Auguste Rodin's "go and see for yourselves" may remain the best advice. Mr. Hürlimann has produced a substitute of a very high standard.

G. E. C.

The Vierge Dorée from the trumeau of the portal to the south transept at Amiens Cathedral. From "Gothic Cathedrals."

ACROSS THE BORDER

By Robert Hurd

Stones of Scotland. Edited by George Scott Moncrieff. Batsford: 10s. 6d.

SOME months ago THE ARCHITECTS' JOURNAL reviewed Sir John Stirling-Maxwell's interesting and stimulating "Shrines and Homes of Scotland," the first really competent history of Scottish architecture to be published for many years. Here, under the title "The Stones of Scotland" is one which, especially to architects, is perhaps even more useful.

The editor, George Scott Moncrieff, approaches his subject with realism: he is passionately devoted to Scotland, frankly critical of her modern status—if she has one—and her provincial outlook, disdainful of ruins, and shrewd enough to assess the development of her architectural future. Instead of attempting the task of compiling an entire history himself, he has enlisted the services of five experts, each of whom writes on the phase about which he is best informed.

The reviewer finds two of these contributions of outstanding interest, Dr. Douglas Simpson's chapter on "The Early Stones" and Mr. Ian Lindsay's lively description of the burgh in the sixteenth and seventeenth centuries, when Scottish architecture displayed national characteristics most clearly.

Dr. Simpson has many original ideas about early Scotland, and the hornets' nest of controversy has no fears for him—not many years ago he provoked indignation by his wholesale re-assessment of early history in his "Historical St. Columba." By now, however, his

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ideas have been widely accepted and his contribution to "The Stones of Scotland" is unlikely to cause any breach of the peace.

He explains the development of work in stone from the earliest type of dwelling (10,000 B.C.) to the end of the living Celtic tradition of sculpture which he traces down to the Reformation. It is a remarkable story, and one little known among architects. Perhaps the most original part is about the Picts, whose carved symbolic stones form a unique phase in Scottish sculpture. One is indeed almost unbearably provoked by curiosity to read that: "Under a set of influences and with an evolutionary origin alike entirely unknown to us, there has developed among the Picts of the North-East a highly elaborated, rigidly conventional and at the same time extremely artistic code of symbolism *to the hidden meaning of which no solution, nay, not even a hidden vestige of a solution, has been discovered.*" (The italics are mine.) Those who were fortunate enough to see Raymond McGrath's reconstruction of "Finella" at Cambridge for Mansfield Forbes may remember his use of Pictish symbols as decoration; and yet one does not remember that even the omniscient Mansfield Forbes knew the meaning of those symbols he thought so beautiful and pure in form.

Dr. Mackay MacKenzie unravels the intricate history of castle development from the wooden fort to the semi-domestic seventeenth-century tower. The economy forced on him here through lack of space seems to clarify the story, and incidentally he disposes of the error, common enough even today, of using the terms "keep" and "peel" indiscriminately to describe almost any old fortified building.

Architects will probably find Mr. Lindsay's chapter on the Scottish Burgh more interesting than any of the others. He gives a picture of all the different structures that went to complete the burgh in Scotland when architecturally at its best. In his survey he includes the Tolbooth (town hall: originally the place appointed for the receipt of tolls or taxes); the Mercat Cross "from which proclamations were made, where criminals were punished, and to which goods were brought to be sold"; the different kinds of thoroughfares—Kirkgate, Cowgate, Wynds or Vennels and finally Closes; doocots; town walls; ports (gateways); street planning; and typical town houses of various classes from Argyll Lodging in Stirling downwards, including those in the charming little Fife burgh of Culross and the buildings erected by Trade Guilds in bigger cities.

It is worth mentioning that Mr. Lindsay was particularly well qualified to write this section, as for some time he has been systematically surveying old Scottish burghs to assess the number of worth-while old houses still standing, for the information of the National Trust for Scotland and the Scottish Department of Health. These bodies are co-operating closely to save what is worth keeping.

The West Bow, Edinburgh. From "The Stones of Scotland."

"The Stones of Scotland" is well illustrated by as complete a collection of photographs of Scottish architecture as can have been published yet, though there are some strange gaps: the magnificent west front of St. Machar's, Aberdeen, and those two gems Ford House, Midlothian, and the old Maybole residence of the Kennedy family, for instance, should not have been left out.

One is sorry, too, that the book does not include a brief survey of nineteenth and early twentieth-century design, for although the period 1880–1920 produced much that was both interesting, significant and entertaining, only the early years of the nineteenth century are touched upon. Mr. Scott Moncrieff does, it is true, actually mention C. R. Mackintosh in his introduction, but his work was so significant for Europe that one would have liked to have it brought more fully into the scheme of the book.

LAW REPORTS

BUILDING ESTATE: RESTRICTIVE COVENANTS

Upminster Estates Co., Ltd. v. Moss.—King's Bench Division. Before Mr. Justice Asquith

THIS was a motion to restrain the defendant from using his premises at Sunnyside Gardens, Upminster, Essex, for the purposes of a business.

The Upminster Estates Co., Ltd., alleged that the defendant, Mr. A. F. Moss, in breach of a restrictive covenant, had carried on at his house the business of a canine specialist and boarding-house for cats and dogs. The property was sold to a predecessor in title of the defendant, and under a covenant that the premises should be used for residential purposes and that no business should be carried on therein. The plaintiffs now alleged that the business carried on by the defendant was in breach of the covenant and was a nuisance and annoyance to the neighbours.

Defendant appeared in person and said he had been in possession of the premises since December, 1929. He had received the permission of the plaintiffs to put up a brass plate announcing that he was a canine specialist.

An affidavit was read from the secretary of the plaintiff company stating that the company had received numerous complaints about the business carried on by the defendant in boarding cats and dogs.

His lordship pointed out that a qualified permission was given by plaintiff company to the defendant to put up a brass plate, and so far as that went the company had given permission to defendant to carry on business at his premises.

Mr. Wilberforce, who appeared for the plaintiffs, said that was so. But what the plaintiffs complained of was the boarding of cats and dogs. A large number of tenants had complained of this. Counsel agreed that he could not stop the defendant from using his premises as a canine surgery. He submitted that boarding cats and dogs was not part of the business of a canine specialist. The defendant had a number of cats and dogs in buildings on the premises and this caused a nuisance from the whining and barking of the dogs.

Plaintiffs said they had been unaware that the defendant had carried on the business of a boarding-house for cats and dogs till they received complaints.

Defendant said he only had fifteen pens, and there was no barking of dogs at night. Cats made no noise.

His lordship: That has not been my experience. (Laughter.)

Defendant added that all canine specialists boarded dogs. At present he had seven dogs and three cats, and he was willing to limit the number he boarded. In fact, he was willing to take only cats.

His lordship said he was inclined, on the evidence, to grant an injunction to restrain the defendant from boarding cats and dogs. If the parties could come to an agreement to limit the number of animals to be kept, that would be a solution of the matter.

Later, Mr. Wilberforce announced that the parties had arrived at a complete agreement, which disposed of the whole action. The defendant undertook that

he would not board any dogs or cats on the premises. But whilst he carried on the animal surgery he would be allowed to keep two sick dogs in two pens, so long as the neighbours did not object. Defendant further undertook to remove all the pens except two for sick dogs, and to pay £10 towards the plaintiffs' costs. On those terms the action was settled.

Defendant agreed to the terms, and his lordship expressed satisfaction at the settlement.

LAW OF PROPERTY ACT

Smith v. *McGowan.—Chancery Division. Before Mr. Justice Luxmoore*

THIS action arose out of the alleged sale of certain lots of property at Stafford at an auction sale.

The plaintiff, Mrs. M. J. Smith, was possessed of certain freehold cottages and shop property, and her case was that the defendant authorised his solicitors to bid for three lots on his behalf and that defendant agreed to purchase the lots for £775. Her action was now for specific performance of this alleged agreement.

Mr. H. E. MacGowan, the defendant, denied that there was any contract as alleged and contended that there was no memorandum of any contract to satisfy the Law of Property Act, and further that there was no separate memorandum in respect of the sale of each lot.

His lordship upheld the defendant's contentions, and dismissed the action, with costs. He held that there was no memorandum of any of the three contracts, which were relied upon by the plaintiff, which would satisfy the statute.

BUILDING ESTATE.—ALLEGED NUISANCE

Dudley Corporation v. *Skelland.—Chancery Division. Before Mr. Justice Asquith*

THIS was a motion by the Dudley Corporation for the committal of the defendant, Mr. Harold B. Skelland, for alleged breach of an injunction made in August last year, by consent, perpetually restraining the defendant from carrying on quarrying at his quarry at Wren's Nest Hill, Dudley, in such a manner as to be a nuisance to the inhabitants of the Corporation's housing estate near by.

Mr. Baden Fuller appeared for the Corporation, and Mr. C. E. Rochford for the defendant.

Mr. Fuller said the Corporation's Wren's Nest housing estate nearly surrounded the hill in which the defendant's quarry was situated. It was a limestone quarry. The floor was approximately on a level with the roofs of the houses and if there were blasting operations, stones might go on to the roofs of the houses, which were only some 70 yds. away. In August, 1937, as the result of blasting operations at the quarry a shower of stones fell on the estate and damage was done. The Corporation thereupon started an action, but it was settled, the defendant consenting to a perpetual injunction restraining him from quarrying in such a manner as to cause a nuisance to the Corporation's estate. The defendant had continued quarrying, it was alleged, with the result that in August this year there was blasting, and showers of stones were thrown on to the houses and gardens of many houses on the estate. The stones weighed up to 3 lb. and 3½ lb., and damage was done to the roofs and other parts of the houses. The stones were thrown a considerable distance and people had to "duck" when the shower of stones came. Many of the stones had fallen near children playing in gardens. The Corporation now alleged that these acts were a breach of the injunction and sought defendant's committal for contempt.

Mr. Rochford said his evidence was a denial that there had ever been any showers of stones and that his client so managed the quarry and took such precautions that it was impossible for stones to leave the quarry as alleged by the Corporation. If any damage had been done, it was not by stones from the quarrying operations, but by small boys with catapults.

There was a great deal of affidavit evidence read to the Court and practically everything was in dispute.

The Corporation's case was supported by affidavits from residents on the estate.

Mr. Rochford said the defendant, by affidavit, emphatically denied that stones had been thrown by blasting operations on the houses. He had taken all precautions whilst quarrying and had been present when many of the shots were fired. Counsel said there had been many complaints of stone throwing and stone slinging by boys, and there had been proceedings against youths for this offence.

At the conclusion of the affidavit evidence, Mr. Fuller said, in view of the conflict of testimony revealed by the affidavits, he must apply for leave to cross-examine the defendant's witnesses.

Mr. Rochford objected to an adjournment, contending that such an application should have been made earlier.

His lordship, after hearing counsels' arguments, made an order for the mutual cross-examination of witnesses on either side, and directed that the motion should be set down for trial, with witnesses, in next term's Chancery list.

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Town Planning Institute

The programme for the Twentieth Annual Country Meeting at Leeds is printed below: The headquarters will be at the Queen's Hotel.

FRIDAY, SEPTEMBER 30

Morning trains to Leeds: King's Cross 10.10 a.m. Arrive Leeds Central Station 2.1 p.m. King's Cross 11.20 a.m. Arrive Leeds Central Station 2.31 p.m. (only 1st and 3rd Pullmans). St. Pancras 10 a.m. Arrive Leeds City Station 1.48 p.m.

Note.—The Queen's Hotel is entered direct from the City Station.

Afternoon, 3 p.m. Meeting at the City Museum, Park Row (about 240 yards north of the Queen's Hotel). Welcome by the Lord Mayor of Leeds, Alderman John Badlay, J.P. Reply by the President, Mr. J. E. Acfield, A.M.INST.C.E. (*M.*), City Engineer and Surveyor. Papers by the President entitled "Planning in Leeds," and by Mr. R. A. H. Livett, A.R.I.B.A., Housing Director, entitled "Housing in Leeds" which will be illustrated by lantern slides.

Evening, 8 to 10 p.m. Reception at the Civic Hall by invitation of the Lord Mayor and Lady Mayoress (Alderman and Mrs. John Badlay)—Exhibition of plans and models.

SATURDAY, OCTOBER 1

Morning, 10 a.m. Motor coaches leave Queen's Hotel (Station Approach entrance) for visit to roads and places of Town Planning interest. *1 p.m.* Luncheon at the Mansion, Roundhay Park, by invitation of the Improvements Committee.

Afternoon, 2.30 p.m. Continue in motor coaches to visit Housing Estates and Quarry Hill Flats.

Afternoon, 4.45 p.m. Council Meeting at the Queen's Hotel.

Evening, 7.15 for 7.30 p.m. Institute Dinner at the Queen's Hotel, 12s. 6d. each (exclusive of wines). (Evening Dress.)

SUNDAY, OCTOBER 2

Morning, 10 a.m. Motor coaches leave Queen's Hotel (Station Approach entrance) for tour of the dales and moors, including Wharfedale and Nidderdale. Route: Infirmary Street, Calverley Street, Woodhouse Lane, Otley Road, Ring Road, Low Road Horsforth, Brownberrie Lane, Bayton Lane, Yeadon (Leeds and Bradford) Aerodrome, Bradford-Harrogate Road, Pool, Farnley, Norwood Edge, Swinsty Reservoir, Fewston Reservoir, Blubberhouses, Bolton Bridge, Bolton Abbey (arriving approximately 11.30, half-hour stay), Barden Tower, Burnsall (lunch at Red Lion Inn, 12.30 to 1.30, price 3s., to be paid direct at hotel), Appletreewick, Pateley Bridge, Fountains Hall, Fountains Abbey (arriving approximately 2.30; one hour stay, admission 1s., to be paid direct at entrance), Bishop Thornton (tea at Drovers Inn, 3.45 to 4.15, price 1s. 3d., to be paid direct at hotel), Ripley, Harrogate, Harewood, Leeds (Queen's Hotel) (arrive approximately at 5.30 p.m.). Price of seat in motor coach, 5s.

Slum Clearance and Rehousing

The most recent figures showing the position of slum clearance and rehousing are summarized below.

Clearance Areas and Orders.—During August local authorities declared areas comprising 3,730 houses, representing the displacement of 14,461 persons, as compared with 3,101 houses and a displacement of 11,027 persons in July.

The Orders submitted during August covered 3,839 houses and the displacement of 16,010 persons, as compared with 3,581 houses and the displacement of 11,121 persons in July.

The Orders confirmed during August covered 4,361 houses and 16,143 persons, as compared with 5,854 houses and 22,534 persons in July. The total number of houses in confirmed Orders is now 206,465 involving the displacement of 871,830 persons.

Rehousing Progress.—The latest available figures are those for July. At the end of that month there were 77,853 houses under construction, as compared with 75,010 at the end of June and 66,380 at the end of July last year. 7,864 houses were completed during July, as compared with 7,569 during June and 6,353 during July, 1937.

The great majority of these houses are being provided for rehousing persons displaced in connection with slum-clearance schemes.

New houses approved during August numbered 8,084 (as compared with 7,712 in July and 7,661 in August last).

HOUSE AT WOLDINGHAM, SURREY:

PROBLEM—*House for resale as a private speculation. Low cost was therefore of exceptional importance. Client did not want house to be "too advanced" in design, as it was thought this might hinder a quick sale. All timber construction was rejected for the same reason, and a compromise of a timber first floor was used.*

SITE—*Sloping sharply to north-east and protected by woods to north and west. The local authority required a gradient not exceeding 1 : 6 for approach drive.*

PLAN—*Living and bedrooms face south over North Downs golf course. The garage is sunk under the house and thus saves space and lowers the gradient of the drive.*

CONSTRUCTION — *External walls : at ground floor level and below, 11 ins. hollow on solid concrete ; above, timber-framed, sheathed with untearable bituminous felt, and wrot and rebated deal weatherboarding, painted. Internally, framing is covered with insulation board, skim-coated. Floors and first floor partitions are timber framed.*

EXTERNAL DETAILS — *Steps and entrance surround are of buff quarries. Windows, standard steel with special frames where in weather boarding.*

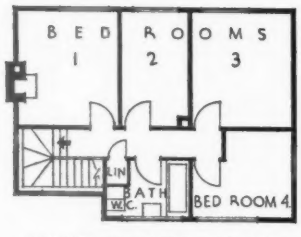
INTERNAL FINISHINGS—*Light washable distemper generally. Flush doors finished in beech, slightly waxed. Door furniture, satin finished chromium plating. Tiling around bath and draining-board.*

SERVICES—*Coal fire in living room and main bedroom. Inset electric fire in dining room. Ideal boiler and one large radiator. Wired for power and electric immersion water heating.*

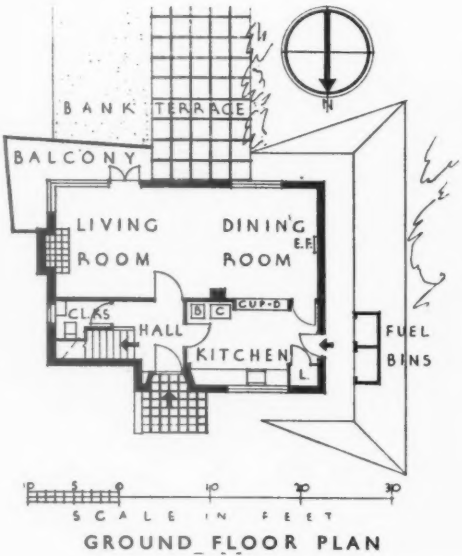
Left, two views of the south front.

The general contractors were J. A. Pettit and Co. ; for list of sub-contractors, see page 550.

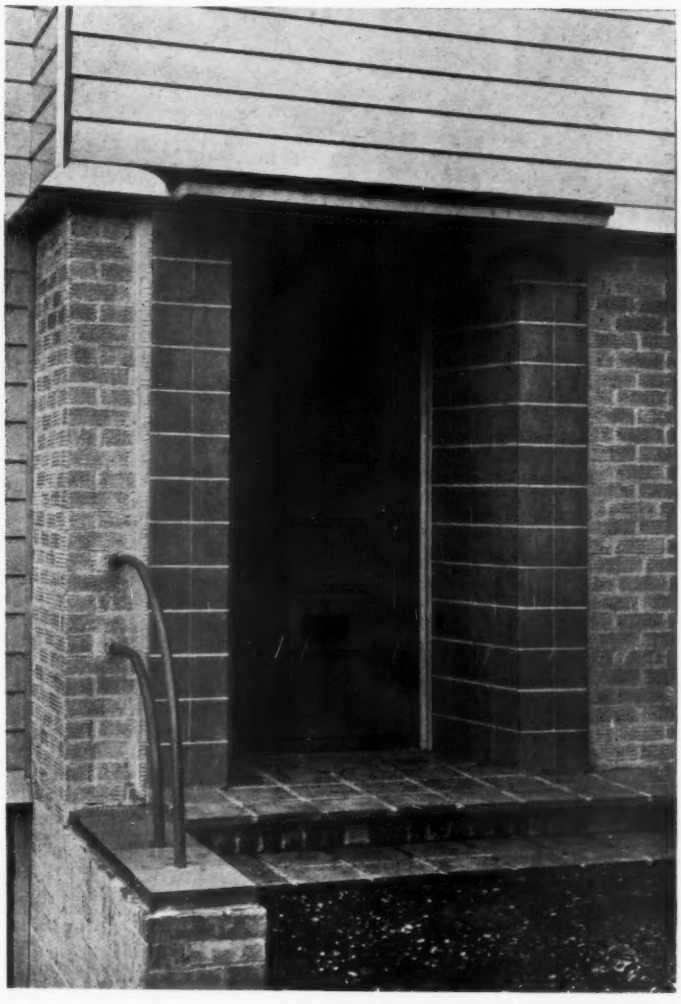
DESIGNED BY ELIE MAYORCAS



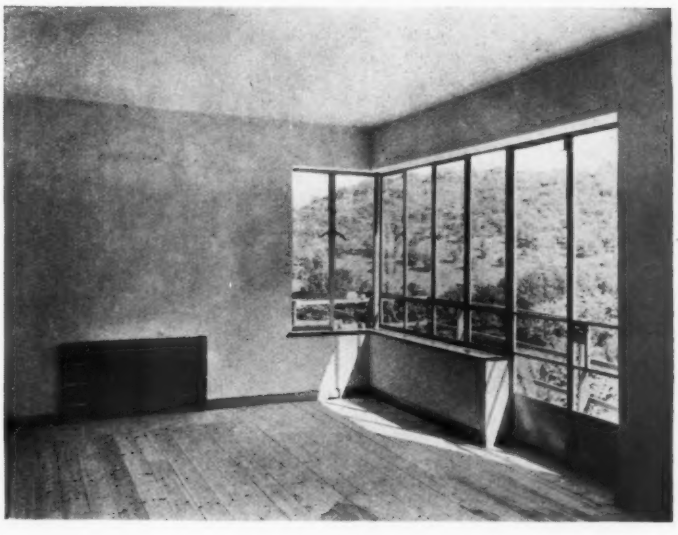
FIRST FLOOR PLAN



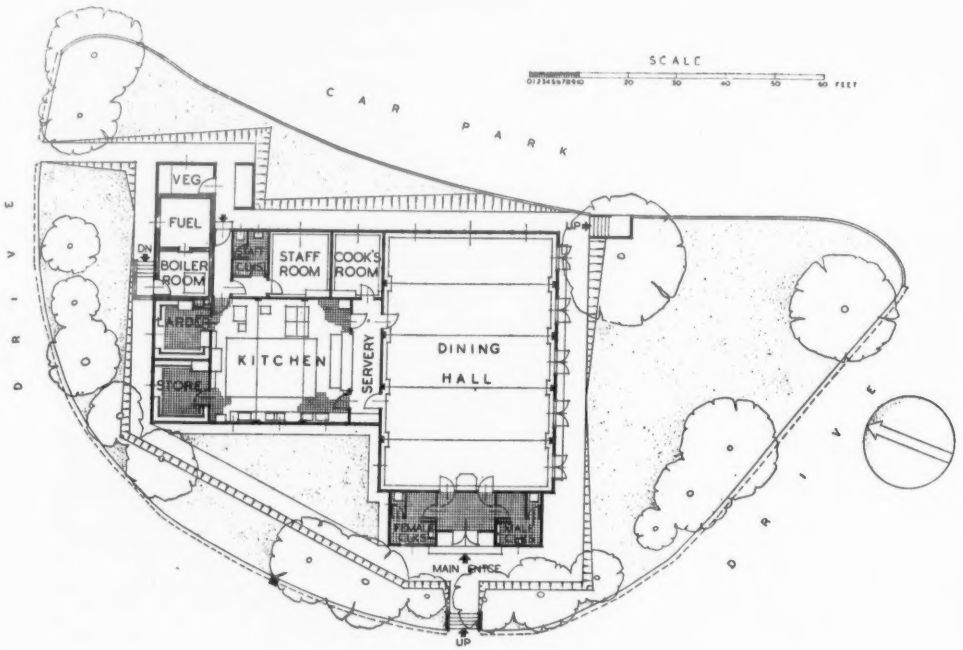
GROUND FLOOR PLAN



Top, left, a view from the north-east; above, the main entrance; below, the living room.



CANTEEN, COUNTY EDUCATION OFFICES, MAIDSTONE



PROBLEM—*Canteen for staff of Kent Education Offices, together with kitchen and stores. The hall is to seat 180 people.*

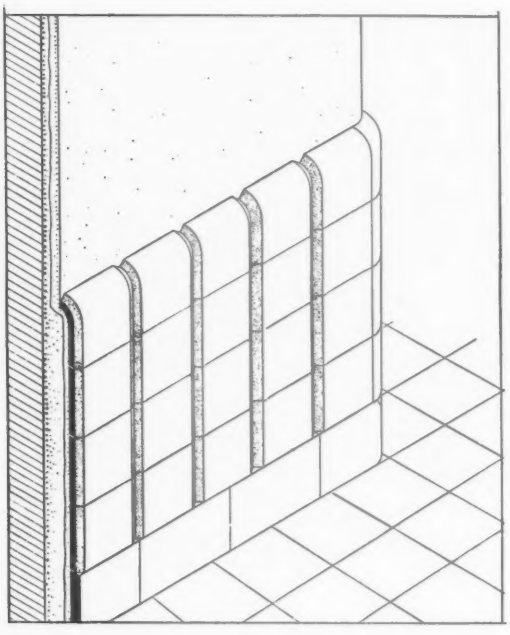
CONSTRUCTION—*Concrete raft. The building is timber-framed, with 3 ins. by 2 ins. studding, sheathed in cedar weatherboarding externally, and internally with plasterboard and hardboard dado. Roof is of cedar shingles and ceiling of plasterboard. Subsidiary roofs are covered with proprietary three-ply bituminous felt. Kitchen has tiled walls. Floors are boarded, fixed to fillets in breeze concrete, and tiled in kitchen.*

SERVICES—*Heating, low pressure hot water, with calorifiers for hot-water supply.*

The general contractors were Messrs. J. Harrison & Co.

On facing page, detail of the south front ; top, right, the kitchen ; right, the canteen hall.

DESIGNED BY W. H. ROBINSON, COUNTY ARCHITECT



TRADE NOTES

[*By PHILIP SCHOLBERG*]

Frostproof Tiles

CARTERS have just issued a new catalogue of Frostproof tiles and fittings, all of which are kept in stock in the biscuit state ready for glazing in the required colours. These tiles are made from a specially prepared plastic clay by a process which renders them proof against all climatic conditions, and, when fixed, they can be distinguished from the ordinary glazed tile for interior work by their slightly less mechanical appearance. It is for this reason that a number of architects like to use them for interior work. These tiles are also available in a wide range of colours because the glazes used are nearly always the same as those on interior tiles, so that all the usual transparent glazes, bright opaque enamels, matt surface colours and bright and dull surface mottles can be provided in the frostproof range, while lettering and other designs can be carried out by any of the usual techniques. The catalogue makes the process of ordering the tiles as simple as possible, as it gives all the essential information of dimensions and the number of tiles to the square yard, but, given plans and elevations Carters will do the rest, always assuming, of course, that you have remembered to say what colour you want, a little detail which should not be too difficult to remember once you have persuaded the client to make up his mind.

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As a piece of sensible production this catalogue gets about top marks, for it carries on the principle of the last Carter catalogue noticed in this column some weeks ago, the manufacturers maintaining that a catalogue should be a catalogue and nothing much else. In this effort all the standard sizes of tiles, angles, beads, cappings and skirtings are clearly shown in small dimensioned sketches, and there is a page or so to show the sort of thing which can be done to special order, the sketch at the head of these notes, for example, showing a plinth in special chamfered tiles. —(*Carter & Co., Ltd., Poole, Dorset.*)

Fixing "Rexine"

While the "Rexine" stand at the Building Exhibition may not be everybody's idea of good design, it quite definitely does its job of showing what the material can be made to do, not only as a wall covering but as a means of sheathing mouldings, doors and other fittings, or for the covering of furniture. Since it may be assumed that architects are capable of deciding for themselves when confronted with a sample, there is not much point in attempting to describe the various new patterns which have been introduced this month, but it is perhaps worth while to give some idea of how this material is fixed, and here it may be mentioned that the manufacturers are liable to be a little fussy unless you spell "Rexine" with a capital R and put it in quotation marks as well. A lot of other manufacturers have the same ideas, and for many years I thought it was due to simple vanity. But there is, apparently, a certain amount of justification for it, for once a trade name passes into common usage it is impossible for any one firm to sustain its right to the sole use of it. Petrol is an example of this, for the word was, I believe, originally coined in the days of the Red Flag Act by the firm of Carless, Capel and Leonard, but it was so enthusiastically incorporated in the English language that nowadays anyone can sell petrol no matter who makes it. Much the same thing is in process of happening to "Cellophane," though here the manufacturers join with I.C.I. in writing to any paper which leaves out the quotation marks. Hence the paragraph in the *New Statesman* London Diary of a month ago. The point is a small one, but if you have ever been irritated by the constant speckling of quotation marks all over the average catalogue there is possibly a reason for it.

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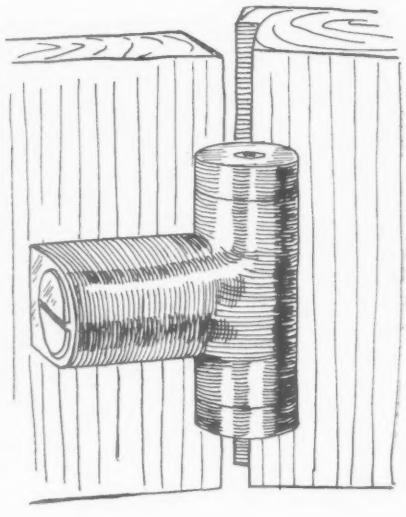
Broadly speaking, the material can be fixed to almost anything except new lime plaster, the alkalinity of which may set up a chemical reaction with the efflorescent salts from backings and thus cause discoloration. The remedy is to apply a coat of distemper as a temporary decoration and take it off again after nine months or a year. With lime-free plasters such as Sirapite or Keene's no chemical action takes place, but the walls must be dry and free from efflorescence. Whenever possible the material should be applied horizontally, with all the vertical joins in the corners, for when vertical application is unavoidable there will be a certain amount of waste in trimming and in matching the pattern. For most surfaces ordinary paperhanger's paste should be used, though, if the surface is painted or polished about 10 per cent. of gold size should be stirred into the paste. Plywood and composition boards should be gold-sized and allowed to dry for 24 hours before the "Rexine" is applied. Other wood or metal surfaces need special adhesives, about which it is better to consult I.C.I. themselves. The standard widths of the mural grades are 36, 50, 54, 60, 66 and 72 inches, the selvedges being left on to allow the decorator to trim on the job.—(*I.C.I. Rexine, Ltd., Hyde, Cheshire.*)

Door Control

Evered and Company have recently introduced a new small model of the Mitchell hinge. It is called the Junior and



is available in two types, one for doors up to 75 lb. in weight, the other for doors up to 120 lb; prices vary from 67s. 6d. to 109s. 6d., according to the finish and size. The hinges are supplied in two units, the top hinge containing the spring, the bottom one the hydraulic check mechanism. There is much to be said for mounting all door control apparatus clear of the floor and thus out of range of washing and scrubbing water. This particular fitting is very neat and unobtrusive, and is probably better in appearance than even the most cleanly designed overhead check, which at best tends to look rather like an afterthought.

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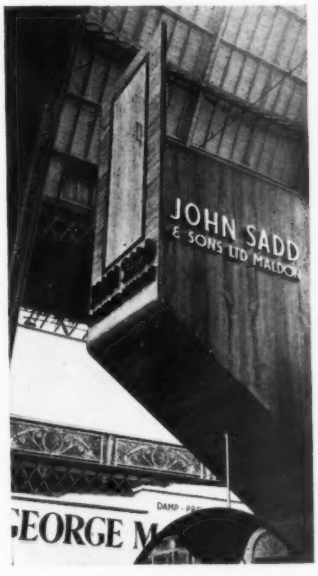
Fitting is quite easy, and the speed of closing can be adjusted in a few moments, while there is a range of different strength springs, though the use of roller bearings normally allows the spring strength to be kept fairly low. The door is automatically held open at all angles greater than 115 degrees, and it will fold back to 180 degrees, though the door can be held at any angle provided this is specified when the hinge is ordered.—(*Evered & Co., Ltd., Surrey Works, Smethwick, Birmingham.*)

More A.R.P.

The following quotation from one of the Home Office A.R.P. handbooks is quoted by James Williamson and Son, who put forward their Lancaster cloth as a suitable material to use for the dark blinds suggested. "In the case of internal lights the question should be investigated how far complete invisibility from outside can be secured by the darkening of windows and skylights . . . all windows and skylights and glazed doors would have to be rendered opaque at night either by the use of paint covering the whole window, by the fitting of blinds; or by the combination of both methods. As material may run short when the need arises, the occupier would be well advised to obtain the necessary blinds and screens now. If dark blinds are not fitted now, full measurements of the blinds and screens required should be recorded as part of the Air Raid Precautions scheme for all premises." Interesting though it may be to speculate on Sir Arthur Quiller-Couch's probable comments on this graceful piece of Government English, the fact remains that, at any rate in small towns or villages, the darkening of all lights may make a considerable difference to the amount of damage done in a raid and may even result in no raid at all. Whatever the personal views of architects may be on the advisability of having anything at all to do with A.R.P., it is quite possible that clients may want to know something about blind materials, and this Lancaster cloth seems to be well worth considering for the job. So far as it is possible to tell, it is definitely light proof; that is to say, one can hold a sample of it in front of a concentrating light fitting, and it is impossible to see any light coming through. It is available in plain colours, though if you have a fancy for pattern there is quite a pleasant design with a light blue background covered all over with small silver stars. The different colours all seem to have the same degree of resistance to light penetration, and the material is made in all widths from three to nine feet.—(*James Williamson and Son, Ltd., Lancaster.*)



Two views of the stand (No. 120 F) of John Sadd and Sons, Ltd.

THE BUILDING EXHIBITION

The stand (No. 135 G) of *MESSRS. M. McCARTHY AND SONS, LTD.*, contains a comprehensive display of their sand-lime bricks. These bricks have been used in the construction of the stand, as will be seen from the photograph on the following page. Also on view is the Clumber Fireplace, which is made of white freestone. Literature concerning the products exhibited is available.

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A complete range of malleable iron patent tubular Ke-Klamps for all types of tubular constructional work is shown by *MESSRS. GEO. H. GASCOIGNE CO.*, on Stand No. 64 D. Ke-Klamps are obtainable in over 300 types and sizes, suitable for use with standard gas, steam or water tubing, from ½ in. to 2 ins. nominal bore.

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The exhibits on the Stand (No. 124 F) of *MESSRS. BUCKLAND SAND AND SILICA CO., LTD.*, illustrate the many grades of Buckland sand and incorporate examples of some of the many uses to which Buckland sand is put to-day.

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MESSRS. A. VIGERS, SONS, & CO., LTD., are showing, on Stand 402 Gal., specimens of all types of parquet, wood block and strip floorings in various designs; also oak panelling.

●

A new rubber draught excluder and sound deadener is on view on the Stand No. 371 Gal. of *CHARLES P. MOODY.* This firm

The sound-proof, air-conditioned radio-study on the stand (370 Gal.) of the Plus Flats Management Ltd. Architect, Walter Goodesmith.

are the distributors of this product, which is being sold at forty-four shillings per 100 ft. Other features include the Dictator door closer, price seventeen shillings (bronze finish) and twenty-one shillings and sixpence (chromium plated); and the Perkeo ball-bearing sliding door gear.

•

Ryarsh sand-lime bricks are displayed by *MESSRS. RYARSH BRICK AND SAND CO., LTD.*, on Stand No. 95 E. Ryarsh bricks are made from 1⅞in. to 3 in. The surface of the brick is smooth and hard. Certified tests show that the tensile and crushing strengths are much in excess of those laid down in the British Standard Specification for bricks for Special Purposes. An interesting carved brick is also on view; it was executed by a clerk of works on one of the jobs on which these bricks were used and shows how they can be adapted for other purposes.

Manufacturer's Item

The Beeston Boiler Co., Ltd., of Beeston, near Nottingham, have just issued a 216-page illustrated brochure devoted to their Robin Hood boilers, Beeston domestic boilers, radiators, hot water pipes, fittings, valves, etc. Much space is devoted to the firm's new designs. These include: improved enamelled jacket for No. 2 Royal boiler, New Junior boiler front section with improved fire and clinker doors; new pattern Mona boiler; Beeston ash shovel for domestic boilers; extended smoke bend for open fire domestic boilers; dial and pipe thermometers. Specially featured is the new pattern Mona boiler. The original Mona has been on the market for nearly 40 years, and has been used for all kinds of heating schemes, and especially horticultural work, due to its low flow connection. The present boiler is no higher than the original, but has a deeper firepot and other improvements.

Copies of the brochure may be obtained from the firm, free of charge.

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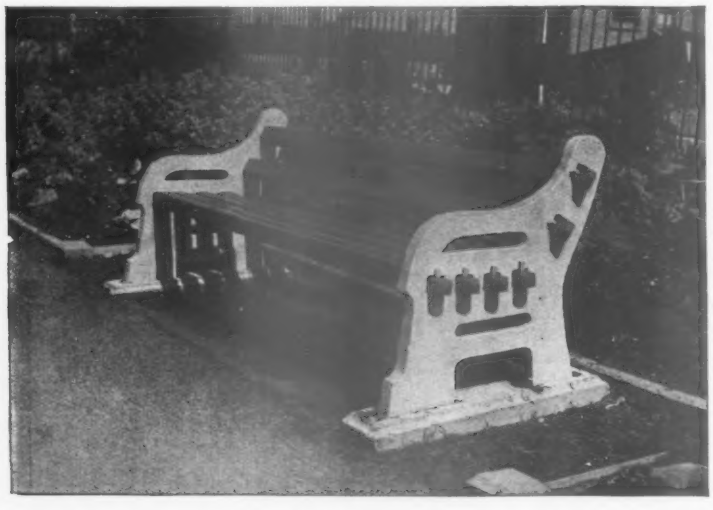
OBITUARY

We regret to record the death of Mr. William R. Barclay, who died at his home in Birmingham on September 16, at the age of 63. Mr. Barclay was one of the leading metallurgists in this country and was undoubtedly one of the outstanding authorities on non-ferrous metallurgy.

During the years 1893-1912 Mr. Barclay acted as assistant to the works manager of Mappin Bros., Sheffield, and the works manager and technical adviser to Joseph Rodgers and Sons. From 1910-1919 he was lecturer in electro-metallurgy at Sheffield University, whilst from 1912-1928 he was joint examiner in this subject to the City and Guilds of London. During this period Mr. Barclay revived the idea of utilizing electric furnaces for the melting of cupro-nickel alloys, and an arrangement was made with Henry Wiggin & Co., Ltd., of Birmingham, for collaboration in the rolling of electrically melted metal.

In 1928, Mr. Barclay became managing director of the Henry Wiggin concern, and in 1931 he was appointed consulting metallurgist to the Mond Nickel Co., Ltd. He was also associated with the Copper Development Association from its inception.

The stand (No. 135 G) of M. McCarthy and Sons, Ltd.



A concrete seat frame. From "Park Improvements" recently issued by the Cement and Concrete Association.

THE BUILDINGS ILLUSTRATED

SCHOOL AT MARGATE (pages 525-528). Architect: W. R. H. Gardner. The general contractors were Rice and Son, Ltd., and sub-contractors and suppliers included: "Twisteel" Reinforcement, Ltd., reinforced concrete; Engert and Rolfe, Ltd., asphalt roofs; Crittall Manufacturing Co., Ltd., metal windows and doors; G. N. Haden and Sons, Ltd., heating and hot water installation; Horsley, Smith & Co. (Floors), Ltd., teak and oak flooring; S. W. Farmer & Son, Ltd., staircase balustrading, gates and fencing; Fenning & Co., Ltd., terrazzo paving; W. Jarrett, plastering; W. H. Griffiths, wall and floor tiling; Modern Floorings Co., linoleum dadoes; International Time Recording Co., Ltd., synchronous clocks and gongs; Bobby & Co., Ltd., curtains, sunblinds and staffroom furniture; Tidmarsh and Sons, stage fittings; E. Saunders (Margate), Ltd., electrical wiring; L. G. Hawkins & Co., Ltd., electrical fittings; A. Olby and Son, Ltd., sanitary fittings and ironmongery; Constable, Hart & Co., Ltd., tar paving; Andrew Bentley, Ltd., science-room fittings and school furniture; Educational Supply Association, Ltd., gymnasium equipment; The Westgate and Birchington Gas Co., gas cooking apparatus for canteen kitchen and emergency gas lighting throughout.

SMALL HOUSE AT WOLDINGHAM, SURREY (pages 544-545). Architect: Elie Mayorcas. The general contractors were J. A. Pettit & Co., and sub-contractors and suppliers included: G. M. Callender & Co., Ltd., "Ledkore" dampcourses; London Brick Co., Ltd., "Phorpres" rustic Flettons; Langley London, Ltd., interlocking pantiles; Slate Slab Products, Ltd., cills; D. Anderson and Son, Ltd., roofing felt; Chance Bros., glass; Ideal Boilers and Radiators, Ltd., central heating, boilers; Rownson, Drew and Clydesdale, Ltd., "Devon" fires, electric heating, sanitary fittings, marble, tiling; County of London Electric Supply Co., Ltd., electric wiring; Dryad, Ltd., door furniture; Williams and Williams, casements, window furniture.

CANTEEN, MAIDSTONE COUNTY OFFICES (pages 546-547). Architect: W. A. Robinson, F.R.I.B.A. The general contractors were J. Harrison & Co.

PRICES

On the following pages appears Prices for Measured Work—Part I, with prices last published on September 1, brought up to date.

★ *ANSWERS TO QUESTIONS*

While the JOURNAL, *naturally, cannot presume to undertake the responsibilities of a quantity surveyor, it has arranged with the authors of this Supplement to answer readers' questions regarding any matter that arises over their use of the Prices Supplement in regard to their work, without any fee. Questions should be addressed to the Editor of the* JOURNAL, *and will be answered personally by Messrs. Davis and Belfield. As is the normal custom, publication in the* JOURNAL *will omit the name and address of the enquirer so that it is unnecessary to write under a pseudonym.*

The complete series of prices consists of four sections, one section being published each week in the following order :—

1. Current Market Prices of Materials, Part I.
2. Current Market Prices of Materials, Part II.
3. Current Prices for Measured Work, Part I.
4. A.—Current Prices for Measured Work, Part II.
   B.—Prices for Approximate Estimates.

● *Prices are for work executed complete and are for an average job in the London Area ; all prices include for overhead charges and profit for the general contractor.*

PART 3

CURRENT PRICES FOR MEASURED WORK—I

BY DAVIS AND BELFIELD, P.A.S.I.

PRELIMINARIES

Water for the works		
Third party and other insurances to persons and property, employer's liability, unemployment and Public Health insurances, and fire insurances (based on value of contract) ..		1½%
Single scaffolding	per yard super	2/–
Independent scaffolding ..	per yard super	2/8

EXCAVATOR

		Ordinary Ground	Clay
Surface digging average 9″ deep and wheeling and depositing on spoil heap, not exceeding two runs	per yard super	–/9	1/1

EXCAVATOR—(*continued*)

		Ordinary Ground	Clay
Excavating not exceeding 5′ 0″ deep to form basement and getting out	per yard cube	1/11	2/10½
Ditto, exceeding 5′ 0″ deep and not exceeding 10′ 0″ deep	per yard cube	2/5	3/6
Excavating not exceeding 5′ 0″ deep to form surface trenches and getting out	per yard cube	2/7	3/10
Ditto, exceeding 5′ 0″ deep and not exceeding 10′ 0″ deep	per yard cube	3/7	5/0
Ditto, not exceeding 5′ 0″ deep to form basement trench excavation commencing 10′ 0″ deep, and getting out	per yard cube	3/4½	4/6
Returning, filling in and ramming around foundations	per yard cube	1/1	1/5

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

EXCAVATOR, CONCRETOR AND BRICKLAYER

EXCAVATOR—(*continued*)

		Ordinary Ground	Clay
Filling barrows and wheeling and depositing excavated soil not exceeding two runs	per yard cube	1/1	1/5
Spreading and levelling from excavated heaps in layers not exceeding 12″	per yard cube	–/9	1/–
Filling into carts or lorries and carting away	per yard cube	4/6	4/10
Planking and strutting to sides of basement, excavation, including strutting	per foot super	1/–	–/9
Planking and strutting to surface trenches (both sides measured)	per foot super	–/4½	–/3
Hardcore, broken brick, filled in under floors and well rammed and consolidated	per yard cube	6/6	
Hardcore, broken brick, deposited, spread and levelled, and rammed to a true surface 6″ thick	per yard super	1/4	

CONCRETOR

Foundations and Mass Concrete

Portland cement concrete 1 : 6 with unscreened ballast, in foundations and masses exceeding 12″ thick	per yard cube	20/6
Ditto, 1 : 3 : 6, with one part of cement and three parts of sand and six parts of clean gravel	per yard cube	21/–
Ditto, 1 : 2 : 4 with one part of cement, two parts of sand and four parts of ¾″ crushed graded shingle	per yard cube	25/10
Add if mixed by hand labour ..	per yard cube	2/–
Add if in foundations not exceeding 12″ thick	per yard cube	2/3
Add for mechanical hoisting	per yard cube	1/6
Add for hand hoisting per 10 feet ..	per yard cube	2/3

Surface Beds

Portland cement concrete 1 : 6, bed 6″ thick, spread and levelled	per yard super	3/11
Add or deduct for each inch over or under 6″ in thickness	per yard super	–/5¾
Add for surface finished with spade face	per yard super	–/3½
Add if laid in two layers with fabric reinforcement (measured separately)	per yard super	–/3½

Upper Floors and Flats

Portland cement concrete 1 : 2 : 4 as before described, 6″ thick, packed around fabric reinforcement (measured separately) finished with spade face	per yard super	5/3½
Add or deduct for each inch over or under 6″ in thickness	per yard super	–/7½

Casings

Portland cement concrete 1 : 2 : 4 as before, in encasing to steel joists	per foot cube	1/3
Ditto, packed around rods (measured separately) in lintols, sectional area not exceeding 36 inches	per foot cube	1/5½
Ditto, ditto, over 36 inches and not exceeding 72 inches sectional area	per foot cube	1/4½
Ditto, ditto, over 72 inches and not exceeding 144 inches sectional area	per foot cube	1/3½
Ditto, ditto, over 144 inches sectional area	per foot cube	1/2½

Walls in Situ

Portland cement concrete 1 : 6 with unscreened ballast in 9″ walls packed around rods (m/s)	per yard super	6/7
Ditto, in 12″ walls ditto	per yard super	8/–

Reinforcement

✱⅜″ diameter and upwards mild steel rod reinforcement, cut to lengths, including bends and hooked ends and embedding in concrete lintols	per cwt.	22/–
✱Under ⅜″ diameter, ditto	per cwt.	23/6

Formwork

Close boarded formwork to soffites of floors and strutting up	per yard super	3/9
Vertical formwork to sides of concrete walls, including struts, etc. (both sides measured)	per yard super	3/–
Formwork to sides and soffites of concrete lintols and beams	per foot super	–/6
Wrot ditto	per foot super	–/7

BRICKLAYER

		Flettons £ s. d.	Second Stocks £ s. d.	Blue Staffordshire Wirecuts £ s. d.
Reduced brickwork in lime mortar 1 : 3 with ¼″ joints	per rod	23 0 4	32 9 0	
Ditto, ⅜″ joints	per rod	22 13 4	31 7 3	
Reduced brickwork in cement mortar 1 : 3 with ¼″ joints	per rod	24 15 4	34 3 8	51 15 8
Ditto with ⅜″ joints ..	per rod	24 14 0	33 7 0	50 6 4
Add if lime mortar hand mixed	per rod	5/8	5/8	
Ditto cement mortar ..	per rod	12/9	12/9	9/–
Half brick walls in lime mortar 1 : 3 ¼″ joints	per yard super	5/1	7/2	
Ditto in cement mortar 1 : 3	per yard super	5/5½	7/6½	11/3
Labour forming 2″ cavity to hollow walls including wall ties, etc.	per yard super			9d.

		£ s. d.
Add to the price of reduced brickwork for brickwork in underpinning	per rod	4 0 0
Ditto, for brickwork circular on plan to flat sweep	per rod	5 0 0
Ditto, ditto, to quick sweep	per rod	10 0 0
Extra for Internal fairface and flush jointing	per yard super	1/1½
Extra for grooved bricks as key for plaster	per yard super	3d.
Raking out joints ditto	per yard super	4½d.
Hacking concrete ditto	per yard super	6d.
Horizontal double slate damp-proof course 4½″ wide bedded in cement mortar	per foot run	4d.
Ditto exceeding 4½″ in width ..	per foot super	10d.
Vertical ditto	per foot super	1/–
" Ledkore " (Grade B) D.P.C. ..	per foot super	9d.
Plumbing angles	per foot run	1d.
Rake out joints and point to lead flashings	per foot run	2d.
Ditto stepped	per foot run	3d.
Bedding door frames	per foot run	1d.
Ditto and pointing one side	per foot run	2d.
Ditto and pointing both sides	per foot run	3d.
Parge and core flues	each	4/–
Set and flaunch only chimney pots	each	5/–
Hoisting and fixing metal windows size 3′ 6″ × 4′ including cutting and pinning lugs to brickwork and bedding frames in cement mortar and pointing in mastic on one side	each	5/–
Ditto, including screwing to wood frame (measured separately)	each	3/–

		9″ × 3″	9″ × 6″
Form opening for air brick including slate lintol and render around in cement and sand to 13½″ wall and build in Terra Cotta air brick	each	2/6	3/3
Galvanized cast iron School Board pattern air bricks and building in	each	9d.	1/3
Fixing only fireplace simple interior and surround	each	27/6	

Partitions

		2″	2½″	3″	4″
Breeze set in cement mortar	per yard super	2/11	3/5	4/1½	5/1½
Clay tile ditto ..	per yard super	4/5	4/11	5/8	6/4½
Pumice ditto ..	per yard super	4/6	5/2½	6/3	7/2
Plaster ditto ..	per yard super	4/–	4/11	6/–	7/2
White glazed both sides best quality bricks, set in cement mortar and pointed in Parian cement	per yard super	..	42/5		

Facings

Prices are extra over Fletton brickwork and are for raking out joints and pointing with a neat struck weathered ¼″ joint in cement mortar. For raking joints and pointing in white cement add an extra 11d. per yard super to the following prices.

		Flemish Bond	English Bond	Stretcher Bond
Stock facings p.c. 95/– ..	per yard super	5/1	5/6	4/2
Rustic Flettons p.c.70/6..	per yard super	3/4	3/6	2/11
Blue pressed p.c. 174/– ..	per yard super	11/3	12/6	8/10
Sand faced hand made reds p.c. 120/–	per yard super	8/–	8/7	6/4
White glazed headers p.c. 470/– and stretchers 480/– ..	per yard super	32/–	36/–	24/8
For a variation of 10/– per M. in p.c. of facing bricks size 8¾″ × 2⅝″ on face with ¼″ joints add or deduct	per yard super	9d.	10d.	6¾d.

✱ Items marked thus have fallen since September 1.

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

BRICKLAYER, DRAINLAYER, ASPHALTER AND PAVIOR

BRICKLAYER—(*continued*)

Facings—(continued)

	Rustic Flettons	Stock Facings	Sand Faced Hand Made Reds
Half brick wall stretcher bond in cement mortar built fair and joints raked out and pointed in cement mortar on one side .. .. per yard super	8/7½	9/10½	12/–
Ditto and pointed both sides per yd. super	10/6	11/9	13/10
One brick wall in cement mortar built fair and joints raked out and pointed in cement mortar on one side per yard super	15/5	17/11	22/1
Ditto and pointed both sides per yd. super	17/3	19/9	23/10
Half brick wall built in best quality white glazed one side bricks, stretcher bond, in cement mortar built fair and pointed in parian cement .. .. per yard super			31/–
Ditto white glazed both sides and pointed both sides per yard super			41/9
Labour and material in hand made sand faced red brick on end window head and pointing to face and 4½″ soffite per foot run			1/3
Hand made, sand faced brick on edge coping including double course of tile creasing with two cement angle fillets to one brick wall .. .. .. per foot run			2/3

DRAINLAYER

Excavate to form drain trenches for 4″ pipes and get out, including planking and strutting, filling in and ramming, and wheeling and spreading surplus.

Prices per 12″ average depth per foot run :	Ordinary ground	Clay
Trenches not exceeding 3′ 0″ deep	–/2½	–/3
Ditto, exceeding 3′ 0″ and not exceeding 5′ 0″ ..	–/5½	–/7
Ditto, exceeding 5′ 0″ and not exceeding 10′ 0″ ..	–/8½	–/9½

	4″ pipes	6″ pipes	9″ pipes
6″ thick Portland cement concrete bed 6 : 1, 12″ wider than diameter of pipe, and flaunched halfway up sides of pipe .. per foot run	–/8½	–/10	
6″ ditto, and completely encasing per foot run	1/7	1/11	

Agricultural land drain pipes, laid complete with butted joints, exclusive of digging .. .. .. per yard run	2″ –/4	3″ –/6	4″ –/8	6″ 1/1

British Standard Quality Salt Glazed Socketed Stoneware Drainpipes and Fittings

	4″ pipes Over 2-ton lots	4″ pipes Under 2 tons, 100 pieces upwards	6″ pipes Over 2-ton lots	6″ pipes Under 2 tons, 100 pieces upwards	9″ pipes Over 2-ton lots	9″ pipes Under 2 tons, 100 pieces upwards
Pipes jointed in 1:1 cement and sand per foot run	1/1	1/3	1/7	1/10	2/8½	3/4
Extra for bends .. each	1/4	1/7	2/–	2/4	3/6	4/–
Ditto, single junction each	1/10	2/2	2/–	2/4	3/6	4/–
Trapped yard gulleys with galvanized iron gratings, and setting in concrete and jointing to drain each	9/–	11/6	13/–	14/–	19/–	22/–
Ditto, with horizontal back inlet .. .. each	10/6	13/3	14/6	15/9	20/6	23/9
Ditto, with vertical back inlet .. .. each	11/3	14/–	15/3	16/9	21/3	24/9
Intercepting trap with Stanford stopper and setting in manhole and making good .. each	20/6	24/–	25/6	29/–	—	—

Coated Cast Iron Socketed Drain Pipes

	4″	6″	9″
Pipes in 9′ 0″ lengths and laying in trench, including caulked lead joints per foot run	3/6	5/3	9/3
Cutting and waste .. .. each	1/9	3/6	—
Extra for bends, including extra joints and cutting and waste on pipe each	10/10	20/9	59/5
Ditto, junction ditto .. .. each	17/5	32/6	99/5
Intercepting trap .. .. each	49/–	79/4	183/4

DRAINLAYER—(*continued*)

	4″	6″	9″
H.M.O.W. large socket gulley trap with 9″ gulley top and heavy grating and one back inlet	45/5	79/6	—
H.M.O.W. gulley trap with 9″ inlet with high invert outlet for use with raising pieces	33/5	48/–	—
4″ inspection chamber with one 4″ branch .. .. each		66/–	
4″ ditto with two 4″ branches one side .. each		99/–	
6″ ditto with one 4″ branch .. .. each		95/3	
6″ ditto with two 6″ branches one side .. each		140/–	
9″ ditto with one 9″ branch .. .. each		212/6	
9″ ditto with two 9″ branches one side .. each		326/–	

	White glazed	Salt glazed
4″ half-round straight main channel 24″ long each	5/10	2/1
Ditto, channel bends (ordinary) .. .. each	8/6	3/–
4″ Three-quarter round branch bends (short) each	8/6	6/9
Manhole covers and frame bedded in grease and set in cement mortar .. .. .. each	4/–	

ASPHALTER

Various qualities of asphalte are marketed by different firms. The term "Best" is intended to imply the best quality produced by a single representative firm, and not necessarily the best or most expensive asphalte obtainable.

	Natural Rock Asphalte Best Quality	Natural Rock Asphalte Second Quality
Basement (Tanking).		
1½″ horizontal d.p.c. in three layers on concrete per yard super	8/5	6/10
¾″ vertical ditto in three coats on brickwork or concrete .. .. .. per yard super	11/6½	10/–
Double angle fillet .. .. .. per foot run	–/6½	–/5½
Hard Graded Paving.		
1″ thick .. .. per yard super	7/4	6/3½
¾″ thick .. .. per yard super	6/3½	5/3½
½″ dampcourse finish, with smooth surface to receive lino or other floor covering	5/3	4/8½
Roofing (Flat).		
¾″ thick in 2 layers .. .. per yard super	6/3½	5/3
1″ ditto .. .. per yard super	7/4	6/3½
Extras.		
Felt supplied and fixed .. per yard super	–/6½	—
Expanded metal reinforcement ditto per yard super	1/0½	—
6″ skirting and fillet on brickwork .. per foot run	1/0½	–/11½
6″ ditto on wood (reinforced) .. .. per foot run	1/2½	1/1½
Nosing at eaves on lead apron (measured separately) .. .. per foot run	–/3½	–/3½
Parapet outlets .. .. each	4/2½	3/8

PAVIOR

	1″	1½″	2″
Granolithic paving .. per yard super	2/7½	3/6	4/7
Add for dusting with carborundum powder per yard super			–/9
Cement and sand paving (1 : 3) per yard super	1/10	2/4½	—
½″ Jointless flooring, red, buff or brown, finished to a smooth trowelled surface, on concrete sub floors per yard super			5/3
¾″ Ditto, in two coats on spade faced concrete or wood sub floors			6/7
⅝″ thick ditto, reinforced with laths and galvanised wire netting .. .. .. per yard super			6/0½
Add for polishing .. .. per yard super			–/6½
Terrazzo paving, white chips set in white cement, panelled into squares with 1½″ × ¼″ deep ebonite strips, on and including cement and sand screed. Total thickness 1½″ per yard super			19/5
Ditto, but white chips set in grey Portland cement per yard super			17/4
Terrazzo tiles, white chips set in white cement :—			
Size 9″ × 9″ × ¾″ .. .. per yard super			20/6
Size 12″ × 12″ × 1″ .. .. per yard super			18/8
Ditto, but white chips set in grey Portland cement :—			
Size 9″ × 9″ × ¾″ .. .. per yard super			18/11
Size 12″ × 12″ × 1″ .. .. per yard super			17/1

	⅛″	5/16″	¼″
Sheet rubber .. .. per yard super	11/7	14/8	17/10
Rubber tiles .. .. per yard super	13/8	16/10	19/11

	5/16″	⅜″	½″
Cork tiles, polished .. per yard super	12/10½	11/–	10/–

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

MASON, SLATER, TILER AND ROOFER, AND CARPENTER

PAVIOR—(*continued*)

Hard red paving bricks laid flat (9″ × 4½″ × 2⅝″)	per yard super	9/–
Ditto, laid on edge	per yard super	11/9

	⅝″ thick	¾″ thick
6″ × 6″ best quality red quarry tiles	per yard super	10/–	11/–
6″ × 6″ best quality buff quarry tiles	per yard super	10/6	11/6
2″ Yorkshire stone paving, square joints and bedding	per yard super	22/–	
2″ Finished path of coarse gravel finished with good binding gravel to slight camber	per yard super	1/7½	
3½″ Path of clean hard clinker and 1½″ gravel finished to slight camber	per yard super	2/3	
7½″ Carriage drive of 3″ clinker, 3″ coarse gravel and 1½″ binding gravel finished to slight camber	per yard super	3/9	
2½″ Tar paving in two layers finished with Derbyshire spar	per yard super	4/9	

MASON

	Bath	Portland
Stone and all labours of usual character, covering 7″ on bed, roughly squared at back, fixed and cleaned down complete	per foot cube	11/9	17/–

Yorkstone

	Thickness 3″	4″	6″
Templates tooled on exposed faces, sawn beds and joints, and set in cement mortar :—			
Size 9″ × 9″	each	1/8	2/3	3/4½
„ 14″ × 9″	each	2/7½	3/6	5/3
„ 18″ × 14″	each	5/3	7/–	10/6
„ 22½″ × 14″	each	6/6	8/8	13/–
„ 27″ × 14″	each	7/10½	10/6	15/9

Artificial Stone

In steps, copings, band courses, etc., per foot cube, from	9/–

Reconstructed Stone

In steps, dressings, band courses, etc., per foot cube	12/6

Slate

	1″	1¼″	1½″
Slate slabs, sawn to size, not exceeding 10 ft. sup. and planed, with rubbed face and fixing as shelving, etc. per foot super	4/6	5/–	6/–
Ditto, not exceeding 20 ft. sup. per foot super	5/4	5/10	7/–
Rubbed edges per foot run	–/4½	–/4½	–/4½

SLATER, TILER AND ROOFER

Bangor and Portmadoc Slates

	20″ × 10″	16″ × 8″	24″ × 12″
Slates laid to a 3″ lap and fixed with zinc nails per square	79/–	77/–	80/–

Old Delabole Slates

	20″ × 12″	16″ × 10″
Grey medium gradings per square	86/–	84/6
Unselected greens (V.M.S.) (weathering greens and grey greens mixed) per square	96/6	94/6

Randoms	No. 1 Gradings 24″/22″ to 12″/10″
Ordinary grey greens per square	91/3
Weathering grey greens (V.M.S.) per square	101/9
	No. 2 Gradings 24″/22″ to 12″/10″
Weathering greens (V.M.S.) per square	107/–

Westmorland Green Slates

Randoms	Bests 24″ to 12″ long proportionate widths
No. 1 Buttermere, fine light green per square	122/9
No. 2 Buttermere, light green (coarse grained) per square	120/9
No. 5 Buttermere, olive green (coarse grained) per square	117/6

SLATER, TILER AND ROOFER—(*continued*)

Tiles

Hand made sand faced 10½″ × 6½″ laid to 4″ gauge, fourth course nailed with galvanized nails per square	65/–
Machine made ditto per square	56/7

Pantiles

Berkshire hand made surface red laid dry, per square	65/–
Bridgewater hand made red laid dry per square	65/–
Bridgewater double Roman laid dry per square	48/3

Sundries

Stripping, slating down to and including, 18″ × 9″ per square	4/6
Ditto smaller sizes per square	6/–
Add for carrying down and stacking per square	1/8
Ditto stripping battens down to and including 18″ × 9″ per square	1/4½
Ditto, ditto, smaller sizes per square	2/3

Cedarwood Tiles

Canadian Cedarwood shingles laid to 5″ gauge per square	47/4

Asbestos

Russet brown asbestos cement roofing tiles 15¾″ × 15¾″ laid diagonally with 2¾″ lap, per square	38/–

CARPENTER

Centering

Turning piece to flat soffites 4½″ wide (For Formwork see "Concretor.")	per foot run	–/4

Fir Sawn and Fixed

Plates, dragon ties, sleeper joists and lintols, ground floor (4″ × 2″ and 4″ × 3″)	per foot cube	3/7
Floor joists (7″ × 2″)	per foot cube	4/1
Partitions (stud) (4″ × 2″ and 4″ × 3″)	per foot cube	4/10
Rafters and ceiling joists (4″ × 2″ and 4″ × 3″)	per foot cube	4/7
Purlins (6″ × 4″)	per foot cube	5/3
Hand labour wrot face	per foot super	–/2
Machine ditto	per foot super	–/1
Rebates, grooves, beads, chamfers and splays, per foot run		–/1
1½″ × 9″ ridge	per foot run	–/6½
1½″ × 11″ hips or valleys, including cutting ends of rafters against same	per foot run	–/8½
Extra labour trimming 6″ × 2″ floor joists around fireplace, including notching ends of joists at 14″ centres to trimmer joist 7′ 0″ long and two tusk tenons	each	6/–
Boring small hole per inch of depth	per doz.	–/6
Ditto large	per doz.	1/–

Deal Battening for Slates and Tiles

2″ × 1″ spaced for Countess (20″ × 10″) slates to 3″ lap per square	10/8
2″ × 1″ ditto for Ladies (16″ × 8″) per square	14/1
2″ × 1″ ditto for Duchess (24″ × 12″) ditto per square	8/9
2″ × 1″ ditto for randoms 24″/22″ to 12″/10″ per square	11/10
1½″ × ¾″ ditto for plain tiles (10½″ × 6½″) to a 4″ gauge per square	13/7
1½″ × 1″ ditto for pantiles to approximately 11¼″ gauge per square	6/7

Roof Boarding

	¾″	1″
Deal roof boarding in batten widths close jointed per square	27/8	33/–
Ditto, prepared for patent flat roofing and including firrings to falls per square	38/1	43/4
Small tilting fillet per foot run		–/2
Large ditto per foot run		–/4

Felt

Sarking or slaters felt, fixed with 2″ side laps and 6″ end laps per yard super	–/10½
Roofing felt ditto per yard super	1/1
Bituminous hair felt ditto per yard super	2/–

Weather Boarding

Rough deal feather edge boarding in batten widths ¼″ average with 1¼″ laps per square	29/9
Western Red Cedar ditto per square	32/10

Fascia and Soffite Boards

1″ × 6″ deal splayed fascia fixed to rafter feet per foot run	–/4½
1″ × 9″ deal soffite tongued both edges, including grooves per foot run	–/7½

(*To be continued in next Issue*)