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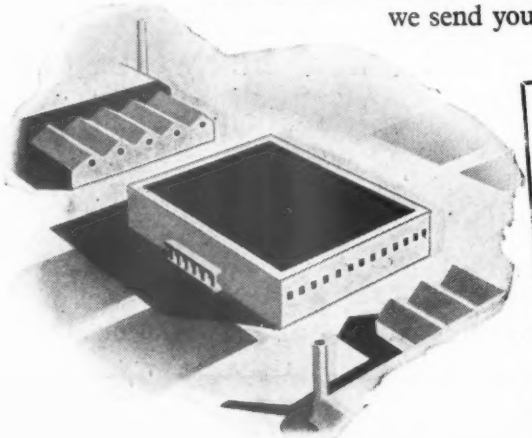

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The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, AUGUST 27, 1942. NUMBER 2483: VOLUME 96

PRINCIPAL CONTENTS

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this JOURNAL *should not be taken as an indication that they are necessarily available for export.*

Owing to the paper shortage the JOURNAL, *in common with all other papers, is now only supplied to newsagents on a "firm order" basis. This means that newsagents are now unable to supply the* JOURNAL *except to a client's definite order.*

In common with every other periodical and newspaper in the country, this JOURNAL *is rationed to a small proportion of its peace-time requirements of paper. This means that it is no longer a free agent printing as many pages as it thinks fit and selling to as many readers as wish to buy it. Instead a balance has to be struck between circulation and number of pages. A batch of new readers may mean that a page has to be struck off, and conversely a page added may mean that a number of readers have to go short of their copy. Thus in everyone's interest, including the reader's, it is important that the utmost economy of paper should be practised, and unless a reader is a subscriber he cannot be sure of getting a copy of the* JOURNAL. *We are sorry for this but it is a necessity imposed by the war on all newspapers. The subscription is £1 3s. 10d. per annum.*

from AN ARCHITECT'S *Commonplace Book*

Ruskin's ultimate disillusion with the Gothic Revival, like his original distrust of it, was the result of his sensibility to beauty. There is plenty of evidence in his later works that he hated the movement because it destroyed beautiful buildings and built ugly ones ; and though he became resigned to the ugliness of new buildings, the systematic destruction of all the architecture he valued was hardly to be borne. In 1874 Ruskin was offered the medal of the Royal Institute of British Architects. For answer he wrote the names of four of the most beautiful buildings in Europe which, at that moment, were being destroyed. Had the Institute made a single effort to save those buildings, or the hundreds of others which yearly suffered the same fate ? The Institute, of course, had not; indeed, as Ruskin knew, but did not say, members of the Institute led the work of destruction in England, and the President was Sir Gilbert Scott himself.

From The Gothic Revival. *By* KENNETH CLARK.

NEWS

The R.I.B.A. has issued a first general statement of conclusions from the R.I.B.A. Reconstruction Committee.

The statement is divided up into four sections :

Section I.—Human Needs as a Foundation for Reconstruction : (*a*) Individual and Public Needs ; (*b*) Practical and Æsthetic Needs.

Section II.—Outline of a National Plan to meet these needs : (*a*) Positive Policy ; (*b*) Urgency of Planning ; (*c*) Machinery for Planning : 1, Nature of a National Planning Authority. 2, Precedents for Public Development. 3, Organization of Planning Authorities; (*d*) Legislation ; (*e*) Organization of the Building Industry ; (*f*) Building Technique ; (*g*) Finance.

Section III.—Filling in the National Plan (*a*) General suggestions : 1, Location of Industry. 2, Preliminary Local Work. 3, Decentralization and New Towns. 4, Relation of Housing to Town-Planning ; (*b*) Housing : 1, Importance of Housing in Post-War Reconstruction. 2, Post-War Housing Need. 3, Planning the Post-War Housing Programme. 4, Housing Agencies. 5, Research. 6, Housing Standards.

Section IV.—The Architects' Contribution : (*a*) In the History of Town Planning ; (*b*) In Modern Planning : 1, Architects and Planners. 2, Civic Planning ; (*c*) In the Public Control of Building Design.

In the introduction it is pointed out that the Committee has published five interim reports entitled as follows : No. 1, Planning and Amenities ; No. 2, Wartime Housing ; No. 3, Building Legislation ; No. 4, Reconstruction and the Architectural Profession ; No. 5, Legislation Affecting Town and Country Planning.

Other interim reports are in course of preparation, but the Committee has decided that this statement should now be published giving a general summary of the conclusions already reached. The Committee states that the work of architects is not primarily the designing of fine buildings as ends in themselves. It is rather the satisfaction of certain human needs and aspirations, both individual and social. The architect's task is therefore first to learn to understand those needs as fully as possible, and secondly to know and use the best possible means for satisfying those needs. A similar approach is adopted in this statement : the first section dealing with human needs as a foundation for reconstruction, and the second with a national plan to meet these needs.

The Report concludes : " Finally, the Committee wishes to emphasise the fact that the future grows out of the present. The character of post-war reconstruction will not be such as to satisfy our human needs automatically or as a result of vague desires. These needs can only be satisfied if the nation as a whole, and more particularly those most able to shape our policy, consider what it is that they are striving to make of England's green and pleasant land, and act through war and peace with the efficiency and vision which are needed to attain that end. This means, among other things, making the best use, now and in the future, of the nation's resources and talents, not excepting those of the architect."

The questions set at the Intermediate, Final and Special Final Examinations held in May and July, 1942, have been published, and are on sale at the R.I.B.A.

Mr. Leslie Beaufoy, F.R.I.B.A., has been appointed an Assistant Secretary in MOWP.

★

At a council meeting of the D.I.A. Lord Sempill was nominated for re-election as President at the annual general meeting. Other nominations were :

Chairman, Mr. G. E. W. Crowe ; Vice-Chairman, Mr. F. R. Yerbury ; Treasurer, Mr. J. W. Waterer. The retiring third of the Council were nominated for re-election and Mr. H. Trethowan to fill the vacancy caused by the resignation of Mr. W. Hartland Thomas. The D.I.A. Exhibition Design " Round the Clock " was opened at the A.A. yesterday. It will run until September 3, when it will be transferred to the Geffrye Museum, Kingsland Road, E.2. After a period there it will go on tour.

★

MOWP has designed a Standard Hut for rapid erection, to speed the construction of army camps, hostels for factory workers, and so on. This hut can be adapted for use as a dormitory, a recreation room, a dining room or a canteen.

The problem before the Ministry has been : (*a*) to provide a very large number of huts in a very short time ; (*b*) to reduce to a minimum the use of materials in short supply, such as timber and steel ; (*c*) to reduce the necessity for site labour to a minimum by the utmost measure of prefabrication away from the site ; (*d*) to design a hut of such a character that : (i) the individual units of which the hut is composed are capable of fabrication by the greatest possible number of firms ; (ii) the supply should be spread over as many industries as possible ; (iii) the number of

Oliver Edwin Simmonds

"Lord Portal wishes me to express his deep appreciation of the work which Mr. Oliver Simmonds and his committee have performed in producing such a useful report." This tribute to the Chairman and members of the Brick Committee, whose second report was dealt with in a recent issue, was paid by Mr. George Hicks, Parliamentary Secretary, MOWP, in the House of Commons. Mr. Simmonds was educated at Taunton and Magdalene College, Cambridge. He has been a Member of Parliament since 1931, and is Managing Director of the Simmonds Development Corporation and Simmonds Aerocessories Ltd. He is a Fellow of the Royal Aeronautical Society and a past president of the Air Raid Protection Institute.

units required to be manufactured should be kept to a minimum.

The Ministry's solution to the problem is the MOWP Standard Hut, which is noteworthy in that it has a standard framework of reinforced concrete designed for mass production, which will take any of the numerous types of covering or panelling now used in individual type huts—i.e. bricks, clay blocks, plasterboard, wood cement, wood wool between asbestos cement sheets, and wood wool slabs cement rendered—whichever is nearest and most convenient—thus saving time and transport.

This range of materials should avoid any bottleneck in production and offers the possibility of using various types of labour in erection.

Asbestos cement sheet has been adopted as a standard for the roof of the hut, but the design is elastic, and permits the use of other roofing materials such as felt-covered plasterboard panels.

The hut is designed for erection on standard foundations, irrespective of the materials which may be used for filling in the panels. This enables the contractor to construct the foundations before the huts arrive on the site and without knowledge of what type may be coming. The roof covering can be fixed in position immediately the framework is erected. The walls can be placed in position under cover of the roof, thus avoiding loss of time due to wet weather. Most of the wall panels are built dry. Prefabricated windows are provided for fixing in conjunction with the wall panels. The framework of the hut can be erected in 100 man hours and the hut completed in approximately 200 man hours.

A British Standard Specification (1057) for Substitute Paints for exterior finishing has just been issued by the B.S.I.

This specification has been prepared at the request received from the Government for a specification to provide for the types of paint to replace " oil paints " where this is possible. Some of the paints specified are, therefore,

complementary to, and not necessarily wholly in substitution for B.S. 929, which provides for reduced standards of oil paint. It is important in the national interest that these "substitute paints" should be used whenever possible.

Paints have already been developed using wool grease and aromatic petroleum residues in substitution of oil, but with the changing supply position it may well be that still further substitution must be adopted.

This specification is very wide in scope; it does not include details of chemical composition and is based essentially on performance requirements.

The only limitations that have been imposed in regard to composition are those given in Appendix A where, in the event of certain materials being employed, the proportions in which they may be used is limited. The limitations are based on the supply position at the time of the publication of the specification, and may be varied or new materials added from time to time.

★

Detail drawings showing timber saving forms of construction for racks, shelving, bins, cupboards and fitments for wartime hospitals, canteens, hostels, post offices, dry stores, quartermaster stores, cloakrooms, trunk stores and factories have been gathered together by MOWP and published in "Timber Economy, No. 3, Fitments."

These designs are another stage in the intensive study by the Ministry to secure economy in timber, and so of shipping space; they are being adopted forthwith in all Government work.

In general, the many ways in which the problem is being met fall under four heads: (1) by using other materials, produced in Britain or more readily available. These alternative materials may have to be varied according to availability of supplies; (2) by introducing more economical methods of using timber in joinery and carpentry; (3) by simplifying designs and lowering standards; (4) by new methods of using plywood.

In some cases it would be possible to economise still further in the use of timber, but in preparing the designs due regard has been paid to economy in labour and some factor of safety has had to be allowed to cover the possibility of shelving, racks, etc., although designed for one specific purpose, being used for a different one. Several concrete fitments are illustrated.

It is important to note that the use of wood sinks is prohibited except where special permission is obtained from the Directorate of Constructional Design, MOWP. Wherever possible white glazed or galvanized iron sinks must be used. The use of wood and metal supports for sinks is also prohibited, but there is no objection to the use of cantilever brackets already in stock, provided that no licence is issued for the replacement of the material.

Most useful from the manufacturers' point of view are the two tables (Plates 2 and 3) contained in the publication: (i) Plate 2 shows the *maximum* amount of timber required for all the "free standing" fitments and for fixed runs of shelving which can be calculated per foot run. Due allowances for unavoidable waste have been made in the figures given. (ii) Plate 3 gives the carrying capacity for which the shelving has been designed. Where required to carry lower weights than those specified, the shelving should be lightened proportionately.

THE GREAT AMERICAN MYSTERY

ABOUT three weeks ago the public was told of the war's second great building programme—about the camps, aerodromes, stores and docks needed for the American forces, of the diversion of building labour which would have to take place, and of the loyal support voted to Mr. Bevin by representatives of the building industry.

The press announcement of the new programme suggested a vigour of direction and a zeal on the part of the directed which stood out brightly from the gloom of other news; yet many of those engaged in the execution of war building read it with misgiving. They did so for three reasons. The same story had been appearing in various forms for several weeks, except that the Americans were not mentioned. Secondly, they were aware—from the date on which the American programme became commonly known among builders—that its extent must have been known to the responsible Ministries by June 1. From June 1 to November 1, after which building weather is likely to deteriorate sharply, is a period of 152 days and includes, in Mr. Oliver Lyttelton's view, the 80 gravest days in our history. It seemed therefore unnecessary for Mr. Bevin to take his coat off so many times over, and positively unwise to do so with maximum publicity on the 69th day of the precious 152. Thirdly, there seemed to those who have been for long engaged on the actual execution of war building jobs to be altogether too much Ministry of Labour about the beginning of the American programme. These men remember that the biggest mistake of the first year of war building was the belief then acted on that swamping a site with labour would somehow compensate for the omission of all the work that should have been done before the first turf was raised. And they feared that all the announcements about labour, and nothing but labour, meant that the same mistake was going to be made again.

These men are not unreasonable beings and two years' experience of war building has made them eminently reasonable in what they expect from the Ministries set in authority over them. When the broad outline of the American programme became known in the second and third weeks of June they realised its urgency and that the British aptitude for improvisation would again be called on for a miracle. But they hoped that something like the following steps had been or would be taken by the dates set against them:

June 1 — MOWP knows American Programme in broad outline. Time being short, it is decided that each main building Ministry will carry out that portion of the Programme for which its building section is best fitted.

June 15 — Each building Ministry has gathered together from other work an American Division of technicians which is sub-divided into squads to handle each job or small group of jobs. These squads are at work choosing sites, examining electricity supply and drainage, transport and materials, and studying degree to which standard plans can be applied. In some cases surveys are in hand. Attached to each squad is a Ministry of Labour official to enquire into labour and its transport, housing and welfare.

July 1 — MOWP has obtained fairly full knowledge of total programme and has decided priorities. Simultaneously a Standing Committee of MOWP and Labour (not exceeding three men) has been working out best forms of contract and what firms or groups of firms to employ on each job, on the basis of information received from each squad.

July 15 — Preparations in surveys, planning, materials, forecasting and progress scheduling are being vigorously carried out on 50 per cent. of the jobs by squads of three times greater strength than will be needed to supervise execution.

August 15 — 25 per cent. of jobs (the simplest) begun, and another 50 per cent. being prepared for starting.

Did anything like this actually take place? The JOURNAL can find no evidence of it. There is no doubt at all that jobs, possibly a large number of jobs, have been started. Any man with a spade can start a job. But there is no evidence that the American programme has been handled in the conviction that one month's careful preparation by competent technicians *on or near the site* is worth three months' working time, and too much evidence that from June 1st to to-day the bulk of the American programme has been the prize—still unsecured—of silent, elephantine wrestling between building Ministries.

To-day, the 88th of the 152, the JOURNAL asks Lord Portal to recollect that technicians — there must be nearly 10,000 of them—who are engaged on war jobs are not fools, and their opinion of how the American programme is being handled in London will make a great difference to the speed of its execution. It is to Lord Portal that these men look for an explanation of how the job is to be done and the ladder of authority by which it will be controlled. Silence at the top long ago stopped being impressive and became sinister. Lord Portal has a department of able men whose job should be to explain as fully as is compatible with national safety (which is very very fully indeed) how each war building programme is being carried out, what part of that programme is being executed by which Ministry, the steps by which authority descends from Lord Portal to the site foreman on each job and why each is necessary, and the degree to which each stage of the programme has succeeded or failed and why.

No officer of MOWP has ever made an attempt to do these things. There are two explanations of this: The man who would like to have done so has been prevented or he knows an impossible job when he sees it. In the JOURNAL'S view neither explanation is one which, on this 88th day, the building industry should accept.

The Architects' Journal
War Address : 45, The Avenue, Cheam, Surrey
Telephone : Vigilant 0087-9

NOTES & TOPICS

INSIDE STORY

"It must be just about twenty years ago," said Mr. Christian Barman over the radio last week, "that a young man was walking across Waterloo Bridge when he thought he noticed something unusual about the bridge parapet. As he looked along it, it seemed to dip down and come up again. The young man was very interested because he was the editor of one of the architectural journals published in London. He went home and thought about what he had seen and he decided to have a photograph published. When the photograph appeared people suddenly realized that there was something wrong with Waterloo Bridge. One of its eight piers was sinking."

★

The young man referred to by Christian Barman was Mr. G. J. Howling, at that time Editor of THE ARCHITECTS' JOURNAL. He made his discovery in October, 1923, and when he had gone home and thought about it some more, he wrote the following note in the JOURNAL for October 10 of that year :

"London Bridge is broken down," runs the nursery rhyme ; but we search in vain the juvenile poetry books for any mention of Waterloo Bridge, which, if outward appearance counts for anything, is in far greater danger of a breakdown. No one of any sensitiveness can cross Waterloo Bridge on foot nowadays without feeling something of that sinking sensation asso-

ciated in youthful memory with the downward rush of the switchback railway car. The pavement and roadway are distinctly, even alarmingly, undulating throughout the length of the bridge—the rises corresponding with the piers and the falls with the centre of the arches. The parapets add to the sense of insecurity by not only going up and down, but by leaning over—now inwards, now outwards. Rennie's great arches appear to stand as firm as ever, but widened joints and fractures in the granite of the parapet wall seem to indicate some amount of settlement in the infilling of the space within the spandrels of the arches.

★

Immediately this note appeared, the L.C.C. became alarmed and a member of the engineering branch, interviewed by an enterprising sub-editor, dubbed the JOURNAL a scaremonger. "The damage," he said, "is very slight, repairs a mere matter of £50. If the bridge were at Maidenhead instead of Waterloo, the JOURNAL would have taken no notice."

★

"The note," he continued, warming to his work, "is sheer sensationalism, and dangerous sensationalism, because it might create the idea in the public mind that the bridge is insecure."

★

The irony of the thing was that it *did* create the idea that the bridge was insecure—in the mind of the L.C.C. But worse was to come. The man responsible, the champion of good architecture, found he had started not only an architectural hare but a political hound. The hound and the hare went round in circles, and in the end a kill was registered—by the Labour Party, to its eternal disgrace. The bridge, the monument to our greatest victory—our greatest monument to our greatest victory—was torn to pieces to provide Herbert Morrison with a taunt or two.

★

That a bridge that looks suspiciously like a very good bridge has taken its place doesn't make this dirty story a clean one. Sir Giles would have given us the same good bridge somewhere else. At Charing Cross, for instance. Then we should have had two good bridges (three good bridges if you include, as you ought, new Chelsea Bridge, which is a very good bridge indeed, though the fact that it's an L.C.C. job has stopped most of the critics from taking any notice of it—why?)

Mr. G. J. Howling referred to by Astragal as the first person to discover the condition of old Waterloo Bridge. This was in 1923 *when he was editor of this* Journal. *He is the present editor of* The Builder.

★

I have known and admired Mr. Howling for twenty-four years and have shared his disgust at the sensationalism of the L.C.C. over Waterloo Bridge. He is now the editor of *The Builder*, and unless I am mistaken walks over the bridge twice a day. Strange thoughts must hustle around his mind as he surveys those two monster productions, the new bridge and the temporary one, products in a manner of speaking of his own ingenious fountain pen.

★

A.R.G. MONTREAL

The Architectural Research Group of Montreal, stimulated by a note in the JOURNAL* referring to MARS' ramifications overseas, has written to draw attention to its existence. A.R.G. (Montreal) was formed with some six members just over four years ago. The membership, which never exceeded a dozen, has been seriously cut down by the war.

★

They have, however, two big achievements to their credit, in addition to the usual amount of writing, discussion and propaganda. They prevented the closing down of McGill University School of Architecture, and persuaded the authorities instead to reorganize it and appoint John Bland A.R.G. member as head, since when the school has made spectacular and encouraging advances.

★

They also organized an exhibition, *City for Living*, which opened a year ago at the Montreal Art Association, and broke all attendance records. It has since been exhibited at four other places, and is still going the rounds.

★

The exhibition is based on Montreal and its region. Photographs and maps, except in one section (*Montreal as it could be*) are all of Montreal. But the method could equally well be applied to any other Canadian city, and would lead to the same conclusions.

★

Montreal as it was outlines the history of the city from the time that Jacques Cartier discovered the green island in the St. Lawrence until to-day, and ends by picturing the present sprawling greyness of a chaotic metropolis. It concludes that though the city became a great commercial, industrial and transportation centre, with mighty buildings, yet it has not produced good living conditions for its citizens.

★

Montreal as it is shows various aspects of the city as it affects the people who have to live in it. It analyses main trades and occupations, shows land use, population densities, building types, land values and centres of employment. It also shows how the citiy's public services and governing bodies function.

★

Montreal as it could be suggests planning methods that should be applied to the dwelling unit, the local community and the city, and illustrates the points made with pictures of actual achievements in other parts of the world.

★

The last section of the exhibition suggests steps to be taken by the public if they want to see Montreal planned; the last exhibit is a mirror entitled "Here is the person to do it."

ASTRAGAL

A.J. April 2, 1942.

LETTERS

C. Birdwood Willcocks, F.R.I.B.A.
Albert E. M. Taylor, A.I.A.A.

Education in the Appreciation of Architecture

Sir,—For many years the question of how best to educate the public in a wider appreciation of architecture has been under consideration. Various steps have been taken with regard to the matter from time to time: public lectures and exhibitions have been arranged and instruction in architecture is given in some schools, but no successful effort apparently has been made to tackle the problem on a national basis.

Towards the end of last January the suggestion was made that the appreciation of architecture might be taught by the existing staffs in all schools. The matter was discussed with education authorities, who were very interested in the idea, and a course of eleven lectures on the subject, arranged in conjunction with the R.I.B.A., has just been given at Reading University to about 100 teachers, in some of whose schools the teaching of the appreciation of architecture has begun. This course was so successful that a further course was asked for by the teachers and is being arranged.

The R.I.B.A. has appointed a special committee to deal with the project and prepared a short list of books on architecture for the use of teachers and students.

Particulars of the scheme have been sent to the education authorities and some of the public schools, and the suggestion made that this summer a series of small conferences might be held, which could be attended by teachers interested in the subject.

One of the ideas underlying this proposal is that, during the war, a large number of people shall receive education of a kind calculated to make them aware of and sensitive to the architectural opportunities which will arise throughout the post-war reconstruction period. If this is to be done, it is essential that there should be no undue delay. In connection with this side of the scheme a correspondent wrote recently: "I was immensely interested in your proposals for making the study of architecture a vital part of the curricula of our . . . schools. It is a great idea, which should go far to help post-war reconstruction and generally to serve as an energizing factor in the practical education of the younger generation."

Many educationalists now realize that architecture is the subject which can form a background for other subjects and so become a very valuable connecting link between them.

As this is a matter in which all architects can give valuable help to education authorities, it is hoped that they will do so. They can give immediate assistance in connection with the suggested conferences, if arranged by the education authorities in their districts. Another way in which architects can help is by preparing lists of buildings in their areas which are good examples of the architecture of various periods, such as it will be helpful for teachers to take their students to see, as visits to buildings which are good examples of their styles will be arranged by schools which include the teaching of the appreciation of architecture in their curricula.

Reading. C. BIRDWOOD WILLCOCKS

Syllabus for a Course of Twelve Lectures for Teachers

1. *The Nature of Architecture.*—Cause, purpose, materials. Private and community art, the architect as an artist. The claims of the community on the architect. Why the appreciation of architecture should be taught in schools.

2. *The Post and Lintel.*—The theory as a method of building, the influence of this theory on design (Greek—Roman). Development of the column, orders and enrichment—parallels to contemporary work.

3. *The Arch.*—Roman development, extension to Romanesque—parallels in contemporary development.

4. *The Theory of the Pointed Arch.*—Planning theories relative to structural, religious and social requirements.

5. *The Renaissance and the 18th, 19th and 20th Centuries.*—Meaning of word Renaissance. Rediscovery of classical methods, academic variations on classical themes. Scholarly interest in design on the part of the cultured classes. 19th century individualism. Influence of modern building methods on contemporary design. Infusion of foreign ideas. Conflict of styles. Lack of understanding of community claims.

6. *Essentials in Architecture.*—Principles of good design—truth, beauty, strength, vitality, repose. Examples of good and bad design.

7. *The Buildings of an English Town.*—Growth of a local town and its architecture.

8. *Housing.* — Development, past and present. Post-war housing.

9. *Town and Country Planning.* — Historical background; contemporary needs. Domestic, industrial, social and economic requirements, demands of transport, new cities.

10. "*Brains Trust*" *Discussion.*

11. *Educational Integration.*—The problem for the teacher. Architecture and the school curriculum—a general survey. Architecture in the humanities, science and handicrafts.

12. *Recapitulation.*—Summing up of the course.

The constructional and social factors in the development of architecture to be adequately dealt with throughout the course.

The lectures to be well illustrated. They might last for about an hour and should each be followed by a discussion.

Unity in the Architectural Profession

Sir,—As an Architect member of the I.A.A.S., I feel that Mr. Joseph Babbs should be sure of his facts before publicly stating that Major Athoe's letter did not represent the views of the majority of members of the I.A.A.S. Where has he obtained his information from to make such a sweeping statement?

The I.A.A.S. does not differ from the R.I.B.A. except that Surveyors are admitted to membership. Each body is a representative body of bona fide Architects, through whom they may have voice.

I cannot agree a merger is necessary. If one particular body absorbed the others, where would be the "freedom of thought," so cherished by the English race. The I.A.A.S. during its comparatively short life has proved itself to be a live body and I see no reason why it should go into extinction.

The Registration Council should set its own examination and scrap the "recognised examinations." The formation of a State examination would solve the problem, this examination could qualify a person for admission to the Register, also for Associate membership of the body which the individual might wish to join. Some would prefer the R.I.B.A., others the I.A.A.S. The institution of such an examination would leave the R.I.B.A. and the I.A.A.S. to go on as before.

I have been as assistant for thirteen years in the office of a firm of Architects the partners of which are representative of the R.I.B.A. and the I.A.A.S. If the two bodies could get along as friendly as these three Architects, then "Unity" would exist even with the R.I.B.A. and the I.A.A.S. both in full swing.

ALBERT E. M. TAYLOR

Oxford.

Under the title "The Hub of the House," the ASSOCIATION FOR PLANNING AND REGIONAL RECONSTRUCTION *has produced a report dealing with the Kitchen. It has been submitted as evidence to the Ministry of Health Central Housing Committee's Sub-Committee on the Design of Dwellings; this Committee, under the Chairmanship of Lord Dudley, is considering the possible improvements in the design of Houses after the War. The object of the report is to show* alternative arrangements of standard size fittings and equipment in floor areas of different size and shape, planned exclusively for the provision of meals. *Plans both of "living-in" and "independent" kitchens appear in the report, as well as details of standard Kitchen-cupboard units. The Report is printed in full in this issue. It is worth stressing that all the drawings included in the Report were submitted to the English Joinery Manufacturers' Association and vetted by it for feasibility of production in mass. The Asssociation for Planning and Reconstruction grew out of the School of Planning and Research for National Development and started work at the beginning of 1941. The address of the Association is: 32 Gordon Square, W.C. and the chairman is Lord Forrester.*

THE HUB OF THE HOUSE

DEFINITIONS

1 Activities concerned with the maintenance of a household fall roughly into four classes, namely, the provision of meals; washing and laundry work; household cleaning; and the disposal of refuse produced by these three operations. The present work has been limited to that part of the house which is concerned with the provision of meals. This function consists of all processes which are concerned with foodstuffs, thus:

Storage of raw materials and tools,
Preparation and manipulation of food,
Service to the dining-room table,
Washing-up,
Disposal of waste.

2 The present investigation has studied the relationship of one process with another, and emphasizes the importance of the balanced placing of the three principal units—the cooker, sink and work-table—in the layout. These three items have formed the main focal points in all the designs submitted. Each requires storage space for materials used and working tools. The problems of storage have been very carefully investigated and cupboards, shelving and racks have been specially designed and placed to serve the particular needs of cooker, sink and table. While intending to confine this research merely to a study in arrangement and layout and not of individual equipment, it was found necessary in the case of storage to plan in detail in order to accommodate the number of articles required. (Further notes on storage are given later in the text.)

3 In the provision of meals it is assumed that a fair standard of work will be maintained. A FAIR STANDARD REQUIRES ADEQUATE EQUIPMENT ARRANGED IN A REASONABLE SPACE. These descriptions are, of course, arbitrary and open to criticism. A "standard" of meals is still a matter of individual judgment to many people, dependent on personal habit and custom, irrespective of amount of money available for the purchase of food. It cannot be precisely defined. The amount of equipment used depends partly on the ability of the cook to use it—also an unknown factor. What is minimum to one woman will be superfluous to another. The amount of space given over to the kitchen is a matter of great controversy. The kitchen forms part of the complete unit, the House, and cannot really be planned without considering its relationship to the whole. Personal taste of the designer or the client, or the general plan of the house, may dictate a large or small room. The kitchen is, however, the seat of the most important of all the domestic activities upon which the successful management of the house depends, so that we consider the term "reasonable" to include sufficient space for working in under fair conditions, in addition to space merely sufficient to house the working apparatus. A too small kitchen, though completely equipped, may produce considerable mental fatigue through badly placed windows and work-table—the place where most work is done. We suggest that, while more space in some of the plans shown would give less fatiguing working conditions, they do, on the whole, give facilities for maintaining a fair standard of work in reasonable comfort.

4 In drawing up these plans we have considered first the processes concerned in meals production; secondly, the equipment; finally, the space required to house it. This is the reverse of the usual procedure in kitchen planning. The nature of the equipment, however, and the necessity of keeping it as simple as possible, with a view to mass production or prefabrication, has made a certain amount of compromise necessary, while even more adjustments have had to be made to fit into areas of different shape. It follows that the final result can only be a compromise but we feel that the claims of the kitchen have been fairly represented. We have stated that

we have tried to set up a series of typical arrangements of layout. Standard arrangements are only suitable under a fixed set of conditions and circumstances, so we have accepted a number of limitations in order to narrow the field of investigation. One standard set—or even a series of sets—of kitchen fittings can never be made to apply to all types of houses ; the kind of house, its orientation, supply of services, and the habits of the owners must be taken into account. We believe that the units of equipment illustrated by us could form the basis for the layout of any normal type of kitchen, but we have set up for ourselves a boundary line within which we have worked, making the following assumptions :

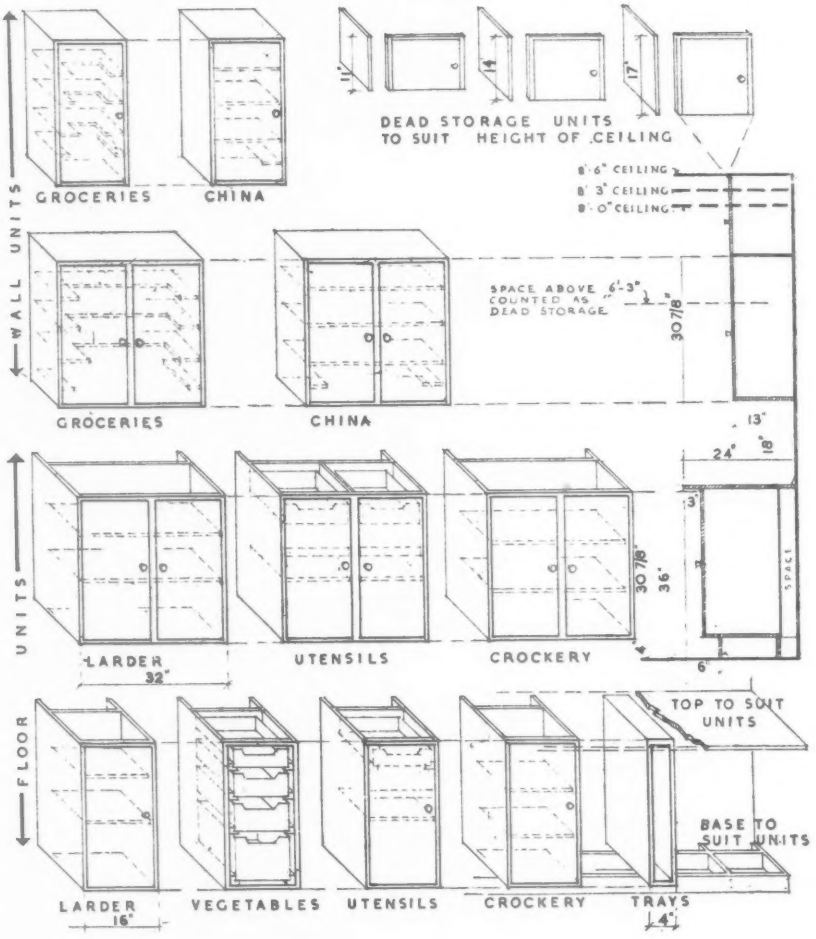
Position

5 The plan is sufficiently flexible to be incorporated in the semi-detached house, terrace, or block of flats, as the window is shown on one wall only (preferably facing east), usually the short wall in a rectangular room. In actual practice this is an advantage in placing the equipment.

Services

6 We consider that we are dealing with a town house, and so assume we are on the water main and gas, electricity or both will be available. From a hygienic and labour-saving point of view, we assume that gas or electricity will be used for cooking and not a coal range. This means that we are not governed by the fixed position of a brick chimney—making the plan much more flexible—and a coal store need not be provided. We are anxious to see the elimination of coal from the town house, as its advantages do not appear sufficient to justify its use, where the minimum of domestic labour is the object. A cooker of the solid fuel heat storage type we consider ideal for the country, but not so practicable in the town house of these relatively small sizes. We do not consider it economy to maintain a fire day and night for the relatively small amount of cooking that will be done, if hot water is obtained from an independent supply. The solid fuel cooker requires refuelling at fixed, if infrequent, times and in a very small household this is sometimes difficult to manage. In the town house the question of space is acute, and the position of the chimney stack and the provision of a coal store—even a small one for anthracite—add greatly to the problem of planning. Another small culinary point is that grilling —a good quick method of cooking, and especially suitable for a town standard of meals—cannot be carried out satisfactorily on the heat storage cooker. Preserving and baking, which it performs admirably, are not part of the usual town house routine, and we consider that, on the whole, the standard town house with the limitations which we have outlined, is better served by gas or electricity.

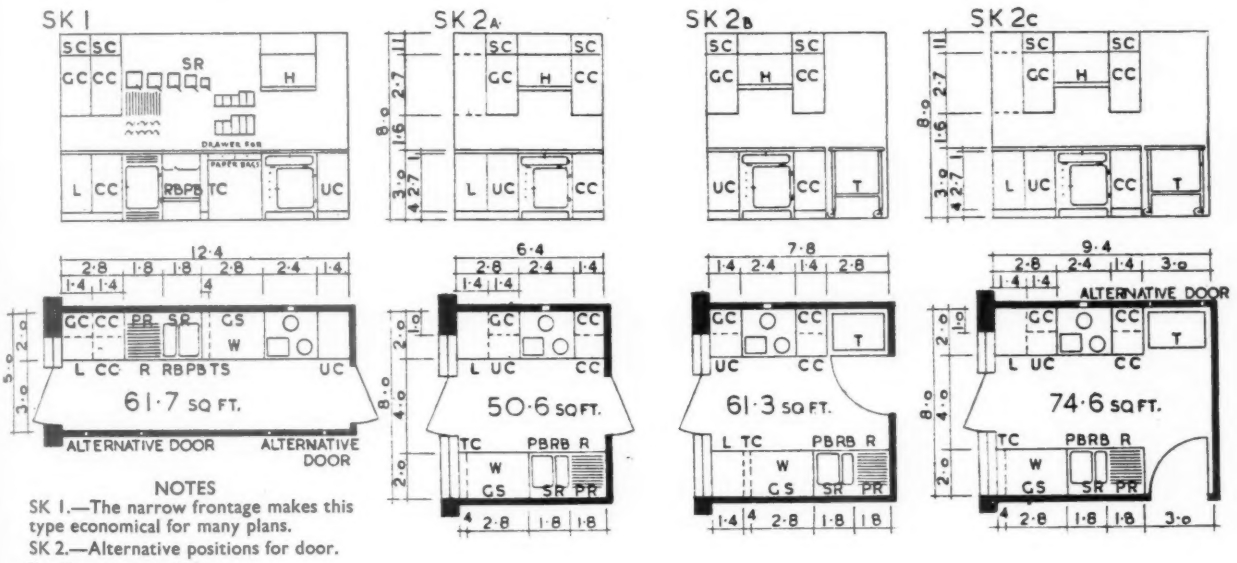
STANDARD KITCHEN-CUPBOARD UNITS



Habit

7 (*a*) As town dwellers prefer to shop more frequently than the country housewife, storage space can be less. (*b*) We have stated that we are only considering the provision of meals and the kitchen has been planned exclusively with this object. This excludes the additional apparatus required for laundry work and household cleaning. The equipment for both these processes takes up a good deal of room, and we consider that this should be accommodated elsewhere. Drying and airing of clothes should not take place in the greasy atmosphere of the kitchen. We realize that a certain amount of washing of " smalls " will inevitably take place in the kitchen if the laundry facilities are placed some distance away. As we hope to provide these elsewhere, we feel it a mistake to introduce any one of them into the kitchen. A wringer, the first essential in laundry equipment, should be fixed to the sink ; our sinks planned for speedy washing up could not easily accommodate this, while a washing machine or clothes boiler would necessarily mean sacrificing some cupboard space, all of which we require for the provision of meals. A drying cupboard would occupy even more space. All laundry equipment should be grouped together, and either the kitchen should be large enough to accommodate it, or it should be together in another room. We feel that a compromise is a mistake, and that in the small rooms with which we are concerned, laundry work other than simple washing in the sink already provided, should be dis-

SMALL INDEPENDENT KITCHEN FOR 2 TO 3 PEOPLE

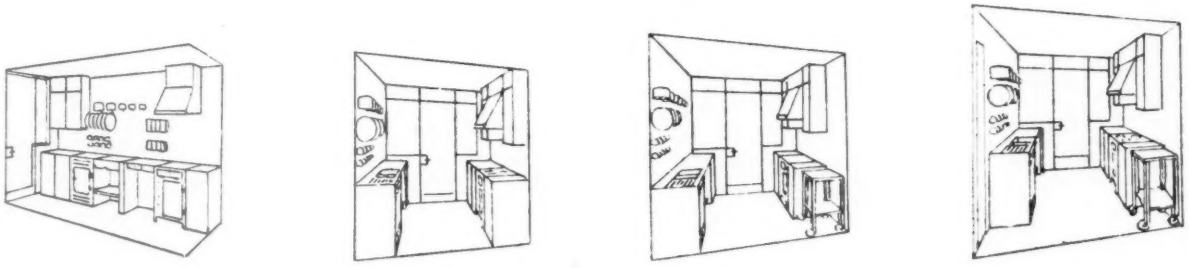


NOTES

SK 1.—The narrow frontage makes this type economical for many plans.

SK 2.—Alternative positions for door.

For Key see page 138.



couraged. (*c*) Similarly, a boiler for central heating, or domestic hot water supply, if any, should not be situated here. We are of the opinion that the functions of cooking and heating should not be combined in the same apparatus when two separate pieces can do the work more efficiently. It is always necessary to cook food and heat water. It is not always desirable to heat a room at the same time, particularly in the summer. The most efficient cooker is the one which gives out heat only when required for cooking, all the heat being directed to that object, and not partially diverted elsewhere. The problem of water heating we are studying in our work on the bathroom-laundry facilities, as more hot water is used in this section than in the kitchen. In a country kitchen where coal is used, we suggest that this function should be combined with the range : but in the town house where gas is available we think that it should be independent. (*d*) Finally, we assume we are dealing with a house of moderate means and that no resident domestic staff are employed. Special arrangements therefore do not have to be made for their accommodation.

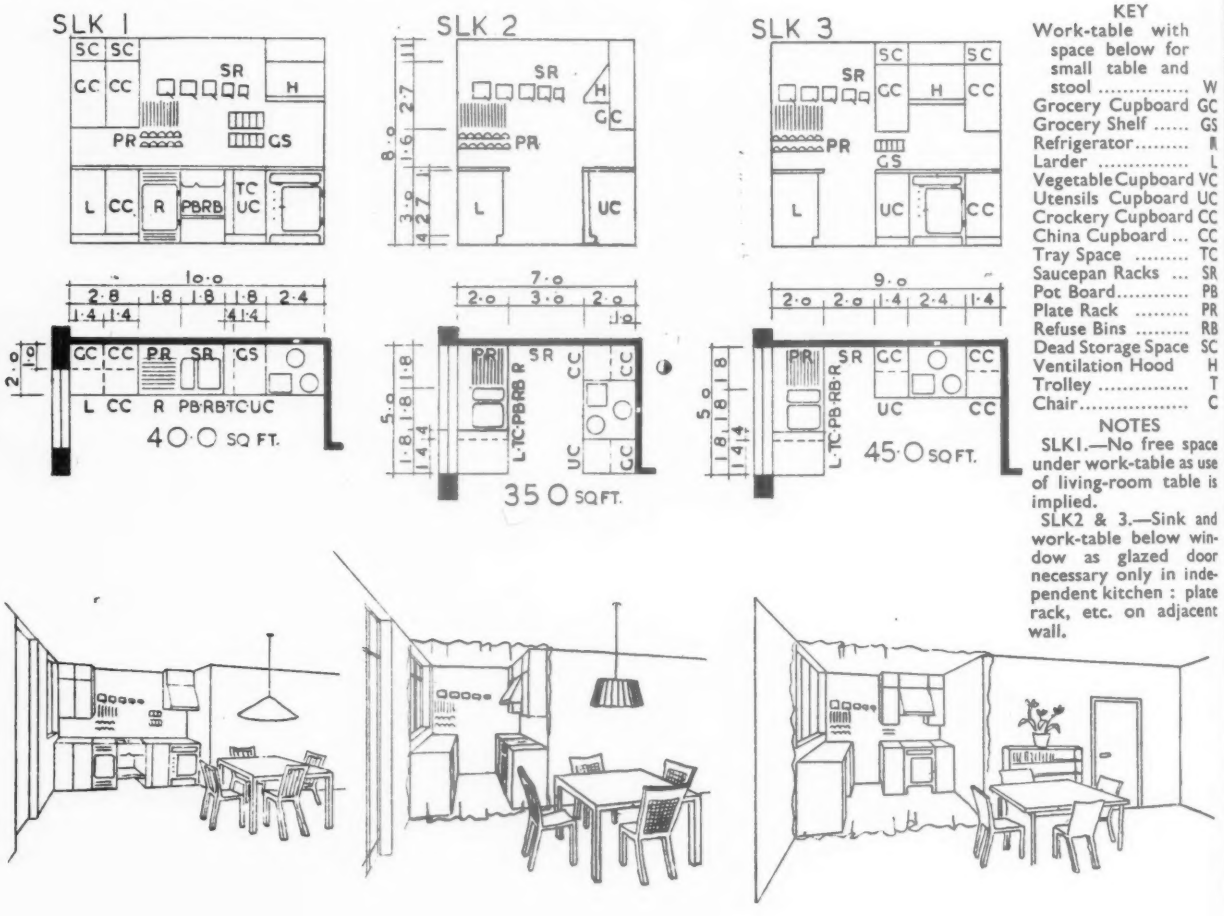
STRUCTURE

8 The first part of our investigation on the hub of the house thus being defined, it was necessary to make some classification as to size, type and shape of the kitchen.

9 The number of persons in the house is a guide to size, but in fact size is dictated by the amount of work done. This depends on two factors, the number of people provided for and the standard required. We assume that a moderate standard of work—already referred to—is expected, neither minimum cooking for a family who mostly take their meals elsewhere, nor frequent meals of many courses and large-scale entertaining involving more storage and apparatus.

We have mentioned the series of processes which constitute the provision of meals. All these processes take place, whatever the numbers in the household. A certain minimum space is therefore necessary for one person, but it does not increase in proportion to the numbers provided for. The proportionate increase in size diminishes as the numbers rise, for articles such as a bucket, washing-up bowl, and most working tools, whether they are serving one or ten, require the same size cupboard accommodation. Each piece of apparatus should be included in kitchens for both size groups. As the number rises the sizes of certain separate pieces may be increased, as in the case of the sink and refrigerator ; or they may be multiplied, as in the case of china cupboards. It follows that grouping by numbers alone is not a true classification, as the needs of several people are similar to the needs of one, differing only in degree, and moreover, a variation in the standard of cooking would permit a great variation in the numbers themselves.

SMALL LIVING-IN KITCHEN FOR 2 TO 3 PEOPLE



Typical Kitchen in a building put up for low income families under war conditions in the U.S. It may be observed that the accommodation given for their 3-bedroom house is practically identical with drawing SLK1 for 2-3 people, in the floor space, position of apparatus and the amount of equipment offered.

Our investigation has been limited to planning for two sizes which we illustrate by drawings, the small kitchen, for 2—3 people, and the medium, for 3—5. A specially planned group of equipment to fit into a ventilated cupboard, or small alcove, is in most cases suitable for one single person, but we have not shown drawings for this. Neither have we considered the larger size, for five people or more. Our choice was based on the fact that in the census table of 1931 it was shown that almost 80 per cent. of the population were living in these sized households, and we considered that these two sizes should have first attention.

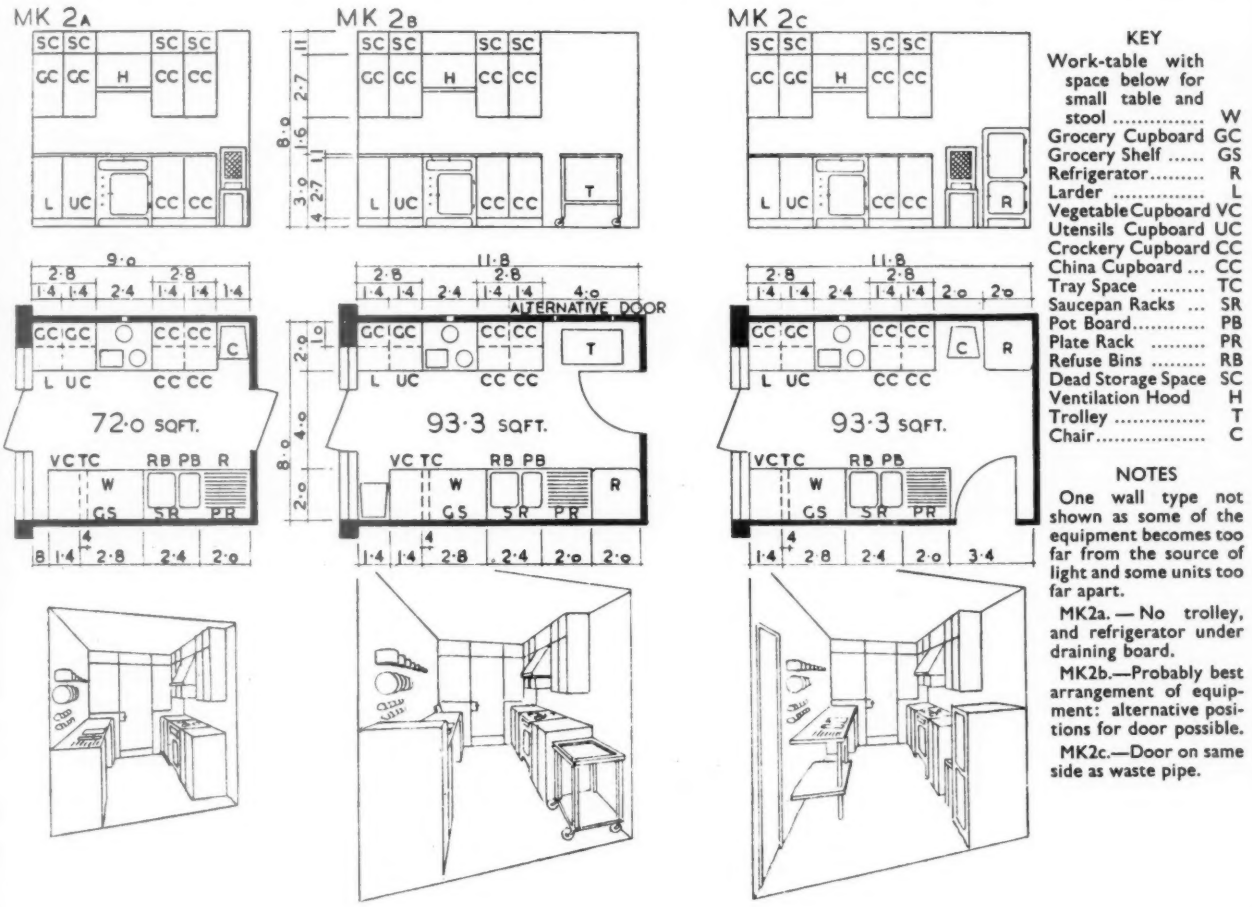
Type

10 The type of kitchen refers to its social position in the house. Either it is part of, or an extension to, the family living room, in which case we have described it as the "living-in kitchen," or it is a room, not connected directly with the living room, and devoted only to domestic work, where there will be no room for "living." This we describe as the "independent kitchen."

In addition there is theoretically an intermediate type, where the kitchen is just large enough to contain a dining-table. We have made no special plans for this type, as in households where no domestic help is employed this room in practice inevitably becomes a greatly cramped "living room," but a small table, suitable for snack meals, has been included in our independent kitchen, housed underneath the work-table.

The Independent Kitchen.—**11** In certain types of dwellings—notably the L.C.C. flats and small suburban houses—the modern building practice has concentrated on the independent form. The view is still accepted that kitchen work is of a very menial character and must be segregated from the living quarters. In our opinion in kitchens of this type working efficiency, not to mention freedom of movement, has been sacrificed unduly in this attempt to push it out of sight. Pushing it out of sight has often meant pushing it out of reach and turning it into a laboratory where the worker is in solitary confinement. Such an attitude is not conducive to

MEDIUM INDEPENDENT KITCHEN FOR 3 TO 5 PEOPLE



KEY

Work-table with space below for small table and stool	W
Grocery Cupboard	GC
Grocery Shelf	GS
Refrigerator	R
Larder	L
Vegetable Cupboard	VC
Utensils Cupboard	UC
Crockery Cupboard	CC
China Cupboard	CC
Tray Space	TC
Saucepan Racks	SR
Pot Board	PB
Plate Rack	PR
Refuse Bins	RB
Dead Storage Space	SC
Ventilation Hood	H
Trolley	T
Chair	C

NOTES

One wall type not shown as some of the equipment becomes too far from the source of light and some units too far apart.

MK2a. — No trolley, and refrigerator under draining board.

MK2b.—Probably best arrangement of equipment: alternative positions for door possible.

MK2c.—Door on same side as waste pipe.

creative work, which is the essence of cooking, and a room designed more on the lines of a studio should be the object. Our plans—based on the needs of the worker as well as the work—seldom occupy more floor space than is generally considered necessary. We think also that household work should not be the entire labour and responsibility of one person, and that several members of the family should have space to assist simultaneously with some of the work.

It is desirable, but not always possible, to have access to either balcony or garden, from the independent kitchen. This gives ready access to outside garbage bins and helps to eliminate the "shut in" feeling induced by monotonous and repetitive work, which is such a contribution to mental fatigue and boredom. All our designs for the independent kitchen show this additional exit. Where space permits another room, connecting with the kitchen, is an advantage. In this case the outside door could be placed here. Such a back kitchen, or scullery, exists in many houses, and is comparable to the "utility room" now being built in the American defence type of dwelling. Designs for this room, however, have not been considered in the present investigation.

12 *The Living-in Kitchen.* — Here the equipment is arranged on one wall, or in a bay, alcove or recess, separated from the living room by a curtain or folding partition which may be thrown back when working. This type has the advantage of providing space for equipment only—working space being supplied in the living room itself. The floor area for the actual kitchen section can therefore be slightly reduced to the advantage of the living room. Various arrangements here are possible and we suggest that this type is particularly suitable in the 2—3 persons class. Smells produced by cooking can be largely extracted by the use of forced ventilation.

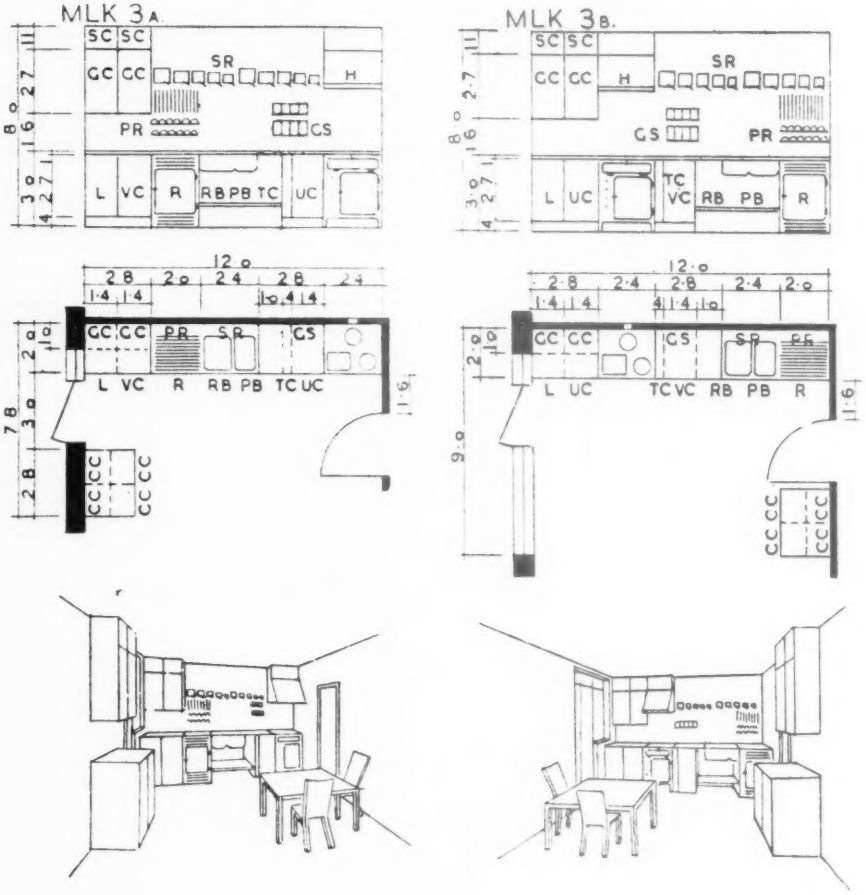
13 A further intermediate form, the kitchen connected by a hatch and two-way cupboards with the living room, is under consideration. All types can exist in both size groups, but not all are practicable in general circumstances.

Shape

14 The arrangement of the external walls or skeleton outline of the kitchen will vary in different buildings. Many shapes are, of course, possible and each will require a somewhat different arrangement of equipment. In our drawings we concentrate on three types of plan that are in fairly common use and show the most suitable arrangements of equipment for these.

(1) a narrow rectangle, with equipment placed on one wall only ;
(2) a broader rectangle, with equipment on the parallel long walls ;
(3) a small rectangle, but more nearly approaching a square, with equipment on two adjacent walls.

MEDIUM LIVING-IN KITCHEN FOR 3 TO 5 PEOPLE



KEY

Work-table with space below for small table and stool	W
Grocery Cupboard	GC
Grocery Shelf	GS
Refrigerator	R
Larder	L
Vegetable Cupboard	VC
Utensils Cupboard	UC
Crockery Cupboard	CC
China Cupboard	CC
Tray Space	TC
Saucepan Racks	SR
Pot Board	PB
Plate Rack	PR
Refuse Bins	RB
Dead Storage Space	SC
Ventilation Hood	H
Trolley	T
Chair	C

NOTES

MLK3a.—No free space under work-table as use of living-room table is implied.

MLK3b.—Space under kitchen window left clear (possibly for dining table) while draining board and china cupboard remain near one another.

Although all the above shapes are possible, in which to express both size groups, it will be seen from the drawings that not all are practicable. Standard equipment should be made to fit into any reasonably shaped room, but to do so the room itself must conform to certain standard dimensions in both directions, and the door(s) and window(s) placed to give the maximum advantage. The position of the entrance will materially affect the placing of apparatus. A badly situated door may easily mean that the entire kitchen needs to be larger in order to reach the desired standard. Doors if possible should open inwards, and must never collide with equipment placed too near them. We have shown plans with doors in alternative positions. In the case of very small floor areas, the door is shown opening outwards as in Sk1, Sk2a and Mk2a. It is, perhaps, unnecessary to state that adequate natural light should reach all parts of the room, and that for psychological reasons it should be possible to look out of the window from the position where most time is spent. It is also desirable to avoid too many "double corners"—one line of equipment meeting another at right angles—as space is lost and cupboard doors likely to collide with one another where this occurs. We have avoided this in all our drawings.

EQUIPMENT

15 Having considered basic room shapes in which to place the equipment, it was necessary to choose for each the most suitable position. We have already mentioned the principal items.

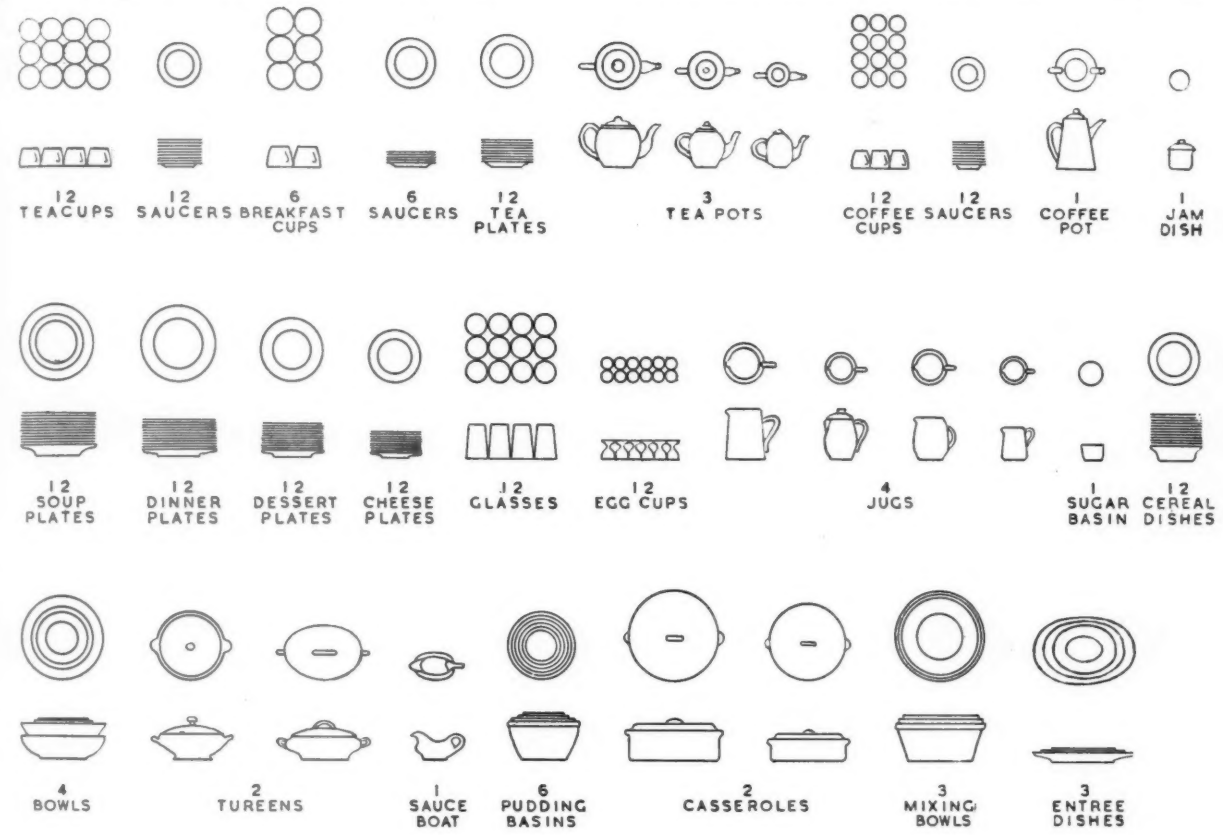
The Cooker

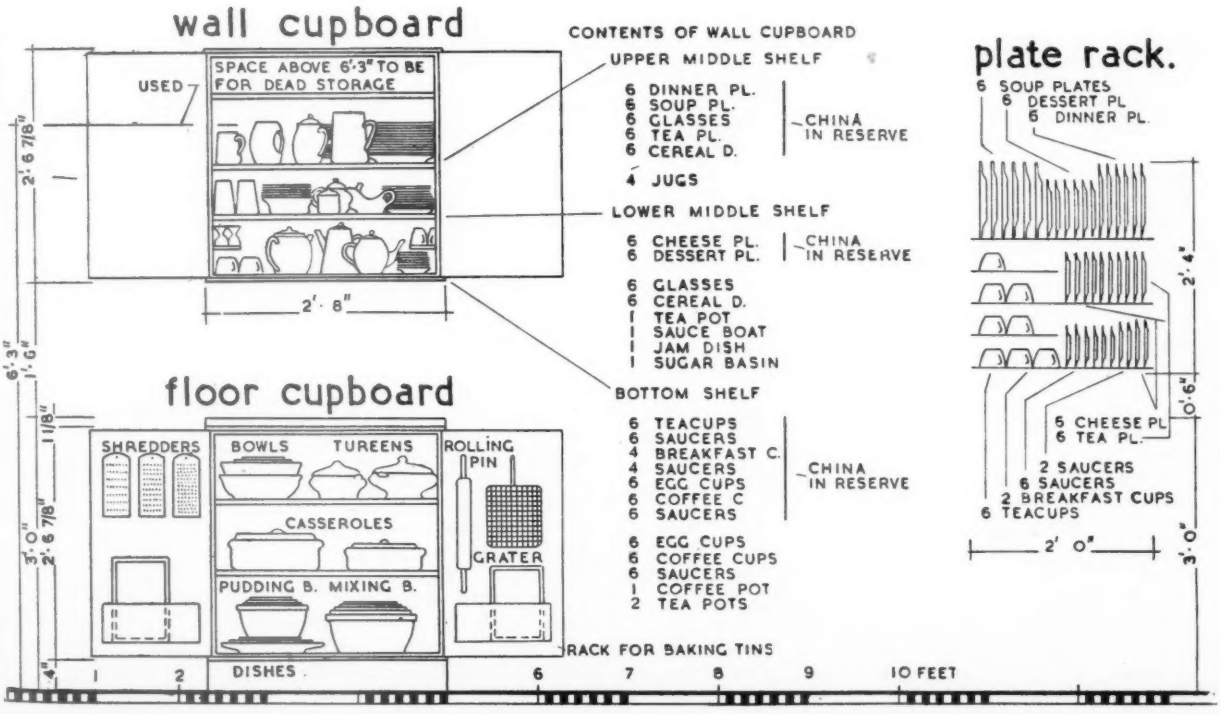
16 This must be out of a draught; not against a window; preferably not in a corner, in order to give some working table top on either side. It would be desirable to instal a type of cooker not at present in common use (except in the case of the oil stove), i.e., the oven at elbow height, but the space within which we have agreed to work does not allow this. The raised oven—and consequently a better working arrangement—is one of the first improvements we should like to see. Ventilation over the cooker should, if possible, be provided to extract smells and vapours.

The Sink

17 We consider this should have two compartments, for washing and rinsing, and have shown this form in all our drawings. It must have a flat surface on either side, one of which should be grooved for drainage. The sink itself must not be directly in a corner, but the draining board may, provided the space in front of it is free, so that two people can work at the sink. It must be reasonably near the cooker and entrance door, from which dirty china returns from the

CHINA AND KITCHENWARE





dining room. Preferably not placed straight in front of the window. (See paragraphs 11—door, and 20—plate-rack.) An open space is necessary beneath the sink to leave the trap exposed and to accommodate a shelf for cooking utensils waiting to be washed.

The Work-table

18 This requires the best light in the room. From it the worker should be able to look out of the window. It should be near to the sink and part of it open underneath so that the worker can sit down. Correct height, setback and toe-space are essential.

Storage

19 All other equipment can be described under this head, namely, accommodation for food, utensils and tools, and cleaning materials used in the kitchen at the above focal points.

Dry goods and groceries should be kept in a CUPBOARD and on OPEN SHELVES placed near the work-bench.

Provisions and milk require a temperature just above freezing. This can only be provided in a REFRIGERATOR which we have therefore shown on all plans. This should be fairly near the entrance for ease in taking the food into the dining room. It may be a free-standing unit or built in under a work-top or draining board. Preferably it would be built into a cupboard with the door at elbow height. One firm has already installed it in numerous positions. We believe that there should be little difficulty in producing refrigerators on a mass scale in the change over from war production, and there might be a considerable saving in the frequency of deliveries of the more perishable foods.

Some foods—and all foods freshly cooked—need airy, cool surroundings, but not refrigeration. A LARDER with outside ventilation provides this. Hot pipes and the cooker must not be in the vicinity.

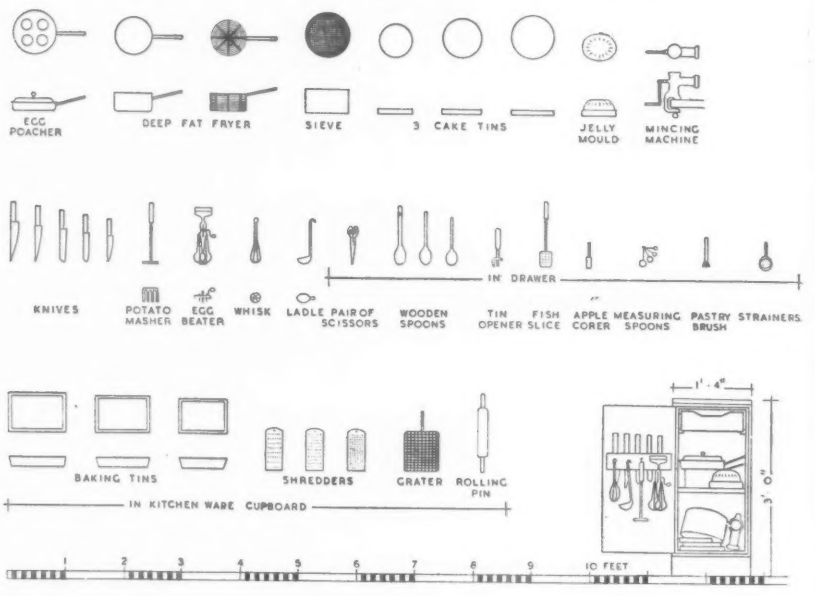
A VEGETABLE CUPBOARD, fitted with racks, is desirable. All vegetables must be washed before cooking so it should be near the sink. This, again, should be well away from any hot pipes.

Drawings submitted show details of construction of cupboards, larder and vegetable racks.

Utensils

20 Pots and pans should be accommodated on special open racks between the cooker and the sink.

KITCHEN UTENSILS FOR HOUSEHOLD OF 5



Working tools should be easily accessible to both work-bench and range. Special racks on the inside of cupboard doors and set-back shelving (shown in the drawings) are necessary to accommodate all the articles used in preparation, which we consider will be fairly liberal in number.

Table-ware should be in a cupboard by itself, near the entrance and near the sink. All plates, cups and saucers can be kept in racks hung within reach of the sink, preferably straight behind it, at correct height. We have placed most of our sinks away from the window in order to give space for these racks. The amount of shelving given over to table-ware is debatable. The allowance of china and glass per person may vary within considerable limits, and we can make no more than very tentative suggestions here.

MEASUREMENTS

21 So far we have assumed overall measurements without consultation with manufacturers, except in the case of the joinery work. The two most important dimensions on which we should like to see general agreement are the height from the floor and depth from the wall of all working surfaces. In all our drawings we have made our surfaces 3′ 0″ high and 2′ 0″ deep, with two exceptions, Mk2b and Mk2c, in which we have included a free-standing refrigerator. The following table of equipment is of this character :—

OVERALL DIMENSIONS OF EQUIPMENT ON FLOOR

Small Kitchen—(2-3 person household)

	Height	Depth	Length
Cooker	3′ 0″	2′ 0″	2′ 4″
Sink (including draining board)	3′ 0″	2′ 0″	3′ 4″
Work-table	3′ 0″	2′ 0″	2′ 8″
Refrigerator	3′ 0″	2′ 0″	1′ 8″
Larder (ventilated cupboard)	3′ 0″	2′ 0″	1′ 4″
Utensils cupboard	3′ 0″	2′ 0″	1′ 4″
Crockery cupboard	3′ 0″	2′ 0″	1′ 4″
Tray space	3′ 0″	2′ 0″	4″

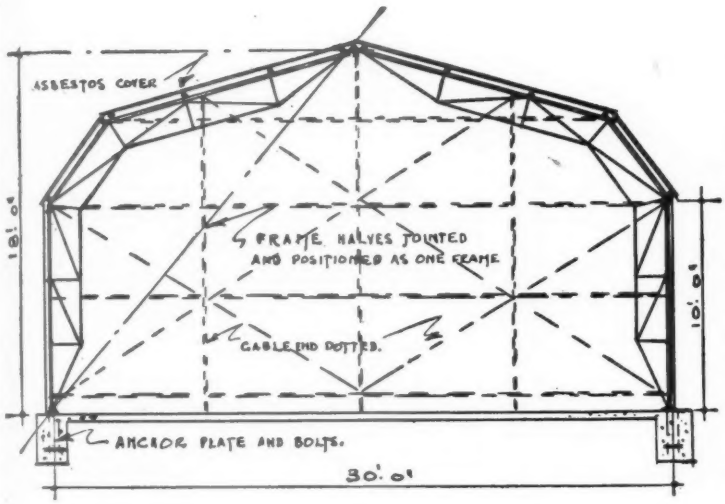
Medium Kitchen (3-5 person household)

	Height	Depth	Length
Cooker	3′ 0″	2′ 0″	2′ 4″
Sink (including draining board)	3′ 0″	2′ 0″	4′ 4″
Work-table	3′ 0″	2′ 0″	2′ 8″
Refrigerator	3′ 0″	2′ 0″	2′ 0″
Larder (ventilated cupboard)	3′ 0″	2′ 0″	1′ 4″
Vegetable cupboard	3′ 0″	2′ 0″	1′ 4″
Utensils cupboard	3′ 0″	2′ 0″	1′ 4″
Crockery cupboard	3′ 0″	2′ 0″	2′ 8″
Tray space	3′ 0″	2′ 0″	4″

We consider that one size cooker, work-table, larder, utensils cupboard and tray space will be suitable in both the small and medium kitchens ; two sizes of sinks, as much more work is done at the

PATENT WELDED TUBULAR CONSTRUCTION

Data Sheet No. 6



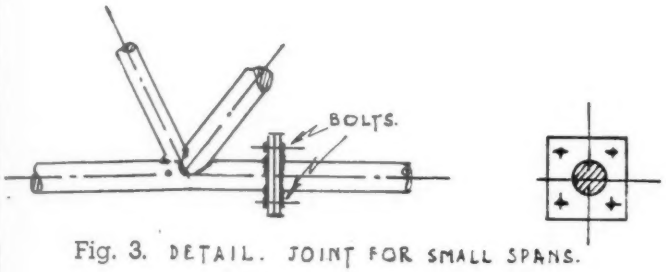


Fig. 3. DETAIL. JOINT FOR SMALL SPANS.

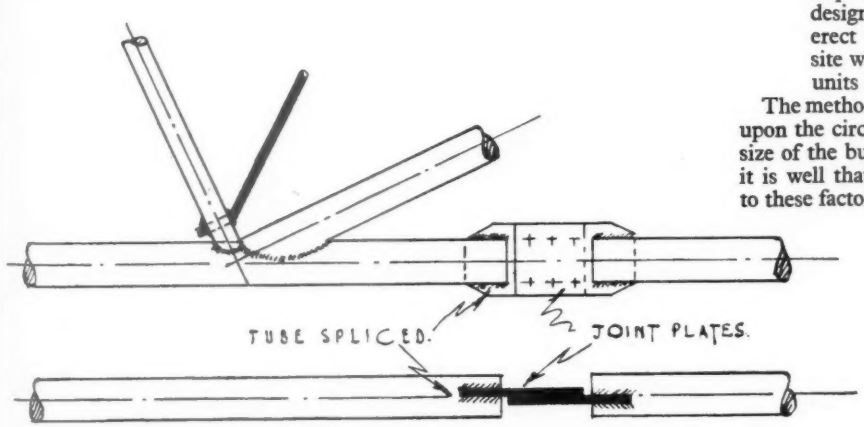


Fig. 4. Bolt connection for larger trusses.

METHODS OF FABRICATION

This form of construction lends itself admirably to the prefabrication of single storey buildings of any size. The standard sections (roof trusses, wall frames and columns, and door and window frames) are light in weight and conveniently transportable. Assembly on the site is simply and rapidly effected, the sections being bolted or welded together according to specification. The buildings can be dismantled with equal facility, and only the loss of foundations is involved since the various sections all remain available for re-erection—thus it may be said that this form of construction has all the essentials of a permanent building plus the facilities of a portable building. A further consideration is the flexibility of the system, allowing alterations or extensions to be made to existing buildings simply and quickly.

Three alternative methods of fabrication are available :—

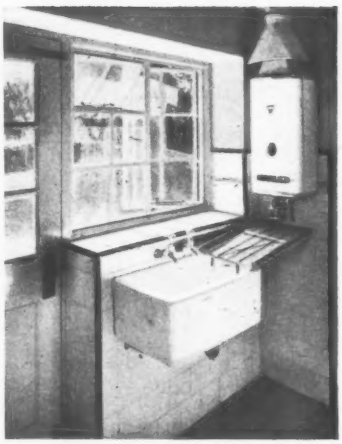
(1) Complete factory prefabrication, leaving assembly only to be carried out on the site.

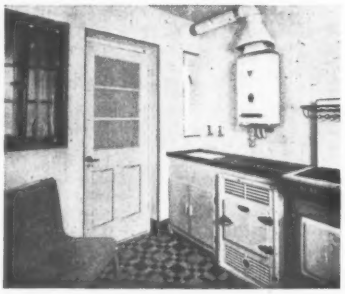
(2) Site welding. The welding of the final fixings and connections is sometimes more satisfactorily effected on the site ; where site welding is not practicable or economical special bolt joint or joint plates are supplied for such connections (see Figs. 3 and 4 reproduced from data sheet No. 3).

(3) Site fabrication and welding. In certain circumstances complete site fabrication is advantageous. Though more costly than factory prefabrication, in cases where transport costs are heavy and access to the site difficult, and where the fabricated sections required are large in number and simple in design, it sometimes proves economical to erect temporary portable workshops on the site where the fabricators and mobile welding units can execute the whole of their work.

The method to be adopted is in each case dependent upon the circumstances prevailing, and the type and size of the building, or buildings, to be erected, and it is well that proper consideration should be given to these factors before a decision is made.

NOTE.—These data sheets are appearing weekly in THE ARCHITECTS' JOURNAL *—they will be available shortly in complete Folder form and application for these Folders should be addressed to Scaffolding [Great Britain] Limited, 77, Easton Street, High Wycombe, Buckinghamshire*





In the report, special reference has been made to the placing of sinks and their accessories and to the design of cupboard and table fitments. The above photographs from Flats—Municipal and Private Enterprise, *show conditions which do not comply with the Association's Recommendations.*

sink with increased numbers than at any other unit, and two sizes of refrigerator and china cupboard.

22 All working surfaces should project 3″ from the face of floor cupboards. This enables debris to be swept easily from the surfaces into a circular receptacle and prevents the worker from bumping against projecting handles.

A further recess 3″ deep and 4″ high is necessary on the floor to provide space for the worker's feet. The height of 4″ enables easy use of a broom and provides a convenient height for the lowest shelf of the cupboard.

In order to avoid frequent junctions the working surface should be supplied in continuous lengths.

23 Cupboard space can be used to its best advantage by limiting the depth of the shelves to the size of the maximum article they are designed to carry. It is impossible to reach articles placed at the back of wider shelves if these are above shoulder level.

To provide sufficient working space, the wall cupboards must be raised at least 1′ 6″ from the working surface and leave 1′ 0″ clear from the front edge.

We have, therefore, standardized wall cupboards as follows :—

OVERALL DIMENSIONS OF WALL CUPBOARDS

Small Kitchen

	Height	*Depth*	*Length*
1 Grocery cupboard	2′ 7″	1′ 0″	1′ 4″
1 China cupboard	2′ 7″	1′ 0″	1′ 4″
2 Dead storage cupboards	11″-1′5″	1′ 0″	1′ 4″

Medium Kitchen

2 Grocery cupboards	2′ 7″	1′ 0″	1′ 4″
2 China cupboards	2′ 7″	1′ 0″	1′ 4″
4 Dead storage cupboards	11″-1′5″	1′ 0″	1′ 4″

24 Most of the materials placed in the cupboards would be in constant use and should be below 6′ 3″ from the ground. A certain number of articles including stores of jam and certain groceries and utensils are better placed out of easy reach. The shelves between 6′ 3″ from the ground and the ceiling can be termed dead storage space, and are suitable for these articles.

The shelving has been carefully placed in each cupboard in relation to the articles it is expected to hold, as illustrated. The details shown in the drawings are designed for joinery mass production, but it is obvious that other materials could be employed.

25 The clear floor space between groups of equipment can vary between 3′ 0″ and 5′ 0″. Two people cannot pass in less than 3′ 0″, and a distance wider than 5′ 0″ makes the two groups too wide apart for easy work.

Distance between groups of equipment on adjacent walls should not be less than 2′ 0″.

The longest distance between any two units of equipment should not exceed 12′ 0″ to 15′ 0″ for practicable working.

26 The overall floor space is governed by :—the number of items of equipment included : whether these are grouped on one wall, opposite walls or adjacent walls : the degree to which they are doubled up (mainly influenced by the position of the cooker, sink and work-table) : the position and opening of door(s) and window(s) : the distances between the groups of equipment. Within these limits the possible variations are innumerable.

C O N C L U S I O N S

27 In presenting this first piece of research into "Hub of the House," we hope that we have made a definite contribution to the problem of "housing." We are, however, fully conscious that the translation of our research into practice necessitates close collaboration between ourselves and the manufacturers of the whole range of equipment and materials concerned.

In our work on the Kitchen, we have been materially assisted by the English Joinery Manufacturers' Association, and, together with it, we have prepared detailed joinery drawings suitable for the mass production of shelf and cupboard equipment. These designs are obtainable.

We hope that assistance similar to that given by the English Joinery Manufacturers' Association will be forthcoming from other manufacturers interested, not only in the Kitchen, but in other rooms which constitute the "Hub of the House."

28 The first report on the Kitchen has been prepared at the request of the Ministry of Health Central Housing Advisory Committee Sub-Committee on the Design of Dwellings. It should, however, be emphasised, once again, that this report forms only the first part of the Association's research into designs for the "Hub of the House." Parallel work has already begun on the water system of the house, location and design of sanitary fittings and household laundry equipment. In due course, further work will be put in hand on the cleaning and heating of the house.

29 In all its work the Association is meticulously careful to avoid duplication of research and the closest possible contact is maintained with all persons known to be engaged on related research in Government Departments, Professional Institutes and other organisations.

[THE END]

★ *What is the cost of 6 ft. lengths of 8-gauge RAINWATER PIPE with spigot and socketed joints and of shoes with inspection covers for the same?* Q 953

★ *What are the purposes of the Uniformity Agreement and the ESSENTIAL WORK ORDER?* - - Q 955

THE ARCHITECTS' JOURNAL

INFORMATION CENTRE

THE Information Centre answers any question about architecture, building, or the professions and trades within the building industry. It does so free of charge, and its help is available to any member of the industry.

Answers are sent direct to enquirers as soon as they have been prepared. The service is confidential ; and in no case is the identity of an enquirer disclosed to a third party.

Questions should be sent to—

THE ARCHITECTS' JOURNAL

War Address :

45 THE AVENUE, CHEAM, SURREY.

Telephone : VIGILANT 0087

Q 952

ESTIMATOR, HARROW.—*Having read of a bonus system for PAYMENT BY RESULTS in the Building Industry, which is, I believe, issued periodically by the Ministry of Works and Planning, would you advise me how to obtain more information about this subject.*

The bonus system of "payment by results" comes into operation under the Essential Work (Building and Civil Engineering) Order, 1941, and the bonus system only operates on any particular job if the Essential Work Order has been applied to that job.

The trade operations for which bonus rates have been fixed have been extended from time to time and are clearly laid down in the Memorandum on Essential Work (Building and Civil Engineering) Order, 1941—*Payment by Results* (Trade Operations for which Bonus Rates have been fixed), published by H.M. Stationery Office, Kingsway, London, W.C., price 4d.

Briefly, the memorandum lays down the basic output and the amount to be paid for the work executed in excess of the basic output. The bonus is shared between the gang and the manner in which it is to be shared is also laid down.

Q 953

ARCHITECT, BIRMINGHAM.—*What is the cost of 6 ft. lengths of 8-gauge RAINWATER PIPE with spigot and socketed joints, and of shoes with inspection covers for same?*

It is quite impossible for us to give you a price, as 8-gauge steel rainwater pipes are not made and it is doubtful whether any manufacturer would manufacture them specially for you at the present time.

We suggest that you get in touch with Messrs. G. A. Harvey and Co. (London) Ltd., in Birmingham, who are one of the largest manufacturers and who will quote you for the nearest standard or purpose-made article. It might be possible for them to adapt 7-gauge gas pipes. When making the enquiry you should state the approximate quantity and the location of the site to which they are to be delivered.

Q 954

ENQUIRER, LONDON.—*I have a son who is just 15 years of age. He is, at present, attending Dulwich College. Could you give me some advice in the matter of directing his EDUCATION IN the right channels, should it be decided that he takes up ARCHITECTURE as a profession?*

We are enclosing a copy of the kind of letter normally sent out by the R.I.B.A. on receipt of requests for information of this kind.

You will note that the R.I.B.A. will let you have a list of recognized schools, information as to the fees of any particular school and the list of scholarships available ; also a list of examinations recognized as a qualification for registration as an architect. We should advise you to write to the R.I.B.A., 66, Portland Place, W.1, who will give you all these particulars and any others you require.

Letter referred to :—

I enclose forms of application for enrolment as Probationer and for admission to the Intermediate and Final Examinations. These are tne three stages through which a student has normally to pass in order to qualify for candidature as Associate R.I.B.A.

As regards training, a student is recommended to take a course at one of the Schools of Architecture recognised by the Royal Institute for the purpose of exemption from its examinations. I enclose a list of these Schools. The courses are, in the case of those Schools with Intermediate exemption, generally of three years' duration (i.e. three years' full-time day courses), while a student in order to qualify for exemption from both the Intermediate and Final Examinations is required to have taken a five-years' course.

The fees at the Recognised Schools vary, but I shall be glad to give you information with respect to any particular School. I also enclose a list of scholarships available at the Recognised Schools.

In addition to the courses at these Schools there are architectural departments at some Polytechnics, Technical Institutions and Schools of Art, where courses in preparation for the R.I.B.A. examinations may be obtained.

A School Certificate (such as that of the Oxford and Cambridge Schools Examination Board) is accepted in support of an application for the Probationership of the R.I.B.A., and, generally speaking, it entitles the holder to exemption from the entrance examinations to the Recognised Schools. If, however, a student wishes to take a Degree Course at a University School of Architecture, matriculation is essential.

The Architects' Registration Act, 1938, provides that no person may practise or carry on business under any name, style or title containing the word "architect" unless he is a person registered under the Architects (Registration) Act, 1931, and no person will be eligible for admission to the Register of Architects unless he has passed one of the examinations recognised as a qualification for registration. A list of the examinations is enclosed.

Q 955

STUDENT, LEICESTER.—*What are the PURPOSES OF the UNIFORMITY AGREEMENT AND the ESSENTIAL WORK ORDER? When a surveyor deals with claims made by a contractor on the different contracts, what essential claims are likely to arise?*

The Uniformity Agreement is an agreement between the National Joint Council for the Building Industry and the Civil Engineering Construction Conciliation Board. It is applied to all contracts specified by the Ministry of Labour to be essential to the war effort, and is designed to give uniformity of wages, hours and working conditions.

Briefly, it states when overtime shall be paid and what the rates shall be ; it provides that "in respect of any pay week in which a man works on the job and has kept himself available for work . . the man shall be entitled to receive pay-

With acknowledgments to C. Needham, Esq., Borough Engineer, Municipal Offices, New Malden, Surrey, and to The Wandsworth and District Gas Company.

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ment of not less than the equivalent of 30 hours at ordinary plain time rates," *i.e.*, whether or not be has been prevented from actually working by weather or other causes; it allows a man travelling more than 25 miles to the job, his fare and his return fare at the end of his employment, and in the case of a man travelling more than 50 miles, his travelling time at plain time rates also; it also allows a man employed more than 50 miles from his place of recruitment, his return fare after every 8 weeks of service; it allows a man travelling time if he travels daily to the job, e.g., the equivalent of ½-hour's pay per day if he travels over 10 and up to 15 miles each way; and finally it authorises the payment of 3s. 6d. per night lodging allowance in the case of men sleeping away from home, whose houses are more than 25 miles from the job and who continue to maintain a house in the place in which they normally reside.

The surveyor's responsibilities depend upon the nature of the contract and the duties of the clerk of works or supervising officer (if any) but normally he will be responsible for checking all costs incurred by the contractor through the application of the Uniformity Agreement, e.g., overtime, idle time, travelling time and travelling expenses.

The Essential Work (Building and Civil Engineering) Order is more complicated. Briefly, it can be applied by the Ministry of Labour to any building or civil engineering work essential to the war effort.

The Order, when applied to an undertaking, restricts the employer from terminating the employment of men engaged on the undertaking (except for serious misconduct) without one week's notice and without the permission of a National Service Officer. It also prevents the employee from leaving the undertaking without permission.

As is the case in the Uniformity Agreement, the Order provides that a man who has kept himself available for work shall receive payment (whether or not he has been prevented from actually working) but the "minimum guaranteed week" is in this case 44 hours, not 30, and moreover it applies to each day separately (4 hours on Saturday and 8 hours on week days). Thus, under this Order a man is entitled to 4 hours pay on Saturday or 8 hours on a week day (whether or not he works, providing he has made himself available for work) even though he may have earned far more than the equivalent of 44 hours during the remainder of the week, taking into consideration overtime.

The other main provision of the Order is the introduction of the Bonusing System or Payment by Results. Under this system the basis output of a gang of men is laid down for certain operations and if the basic output is exceeded the gang are entitled to be paid a bonus as laid down.

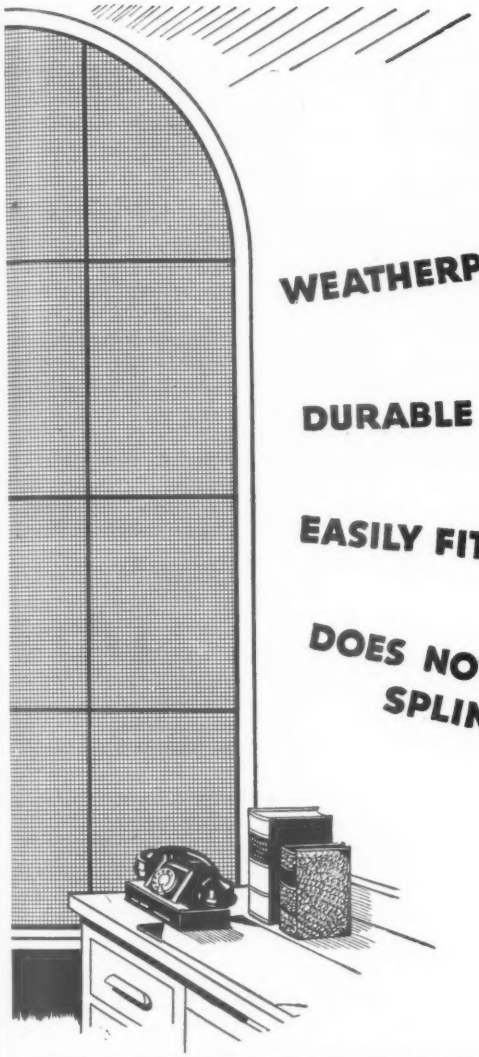
It is not possible to say exactly what the surveyor may be called upon to do in connection with the application of this Order as it has been held that the contractor must show that he has lost money by the application of the Order as a whole, before he is entitled to claim and this is difficult unless the surveyor knows the output allowed by the contractor in his tender, which may well be different from the basic output allowed in the Order itself.

The surveyor may, of course, be called upon to check the payments made to men for idle time under the guaranteed week or guaranteed day and he may be required to check the working of the bonus system; further, if it is held that the contractor must prove an actual loss in order to substantiate a claim, the surveyor might be called upon to check the prime cost.

Q 956

ENQUIRER, LONDON.—*We have received a cable from abroad recommending Garinol as a PROTECTION AGAINST BLAST. By whom is this manufactured?*

Garinol, a transparent liquid for protecting glass against blast, was made by Garinol Products (N.W. Spratt Ltd.), 87, Regent Street, W.1, but the company went into liquidation in September last and no stocks are available. N. W. Spratt Ltd. are still carrying on at the same address.



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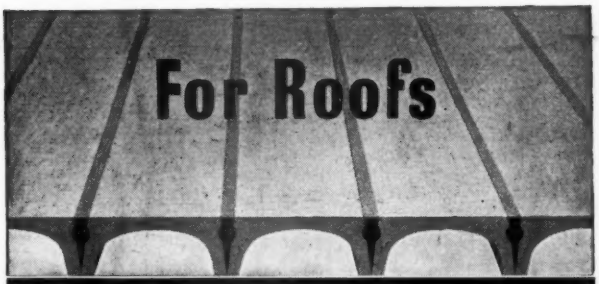

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Replies to Box Numbers should be addressed care of "The Architects' Journal." War Address: 45 The Avenue, Cheam, Surrey.

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Six lines or under, 8s.; each additional line, 1s.

The Incorporated Association of Architects and Surveyors maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. Address: **75 Eaton Place, London, S.W.1. Tel.: Sloane 5615** 991

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YOUNG MAN, exempt military service, studying for R.I.B.A. Final, seeks constructive post of national importance. P. H. F. Stiles, East Lodge, Vigo, South Holmwood, Surrey. 479

DRAUGHTSMAN (Architectural), requires change, aged 17, 2½ years' experience in preparing working drawings of small structures under supervision, constructional details, tracing and building surveys. Write A.H., 61, Openview, Earlsfield, S.W.18. 483

ARCHITECTURAL STUDENT, at present engaged as Engineering Draughtsman, requires part-time Architectural Drawing work. D. Wheeler, 28, Endymion Road, Hatfield, Herts. 484

ARCHITECT, Alien, Swiss and Hungarian University Degree, 10-years' practice, good draughtsman, experienced designer, desires full or part-time work with firm or at home. Box No. 489

ARCHITECTURAL ASSISTANT, just completed 5 years' course at Regent Street Polytechnic School of Architecture and qualified for election as A.R.I.B.A., seeks employment. London or Kent preferred. Write, J. T. Dannatt, Church Road, Halstead, Nr. Sevenoaks, Kent. 490

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ARCHITECT'S ASSISTANT (28), having 10 years' experience in an architect's office, seeks position as architectural draughtsman or supervisor of works. Experienced in surveying, levelling, the preparation of working drawings and details, and the supervision of work. J. C. O'Dwyer, River View, Ballinacurra, Limerick. 499

Classified Advertisements continued on page xxviii.

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WANTED. Copy of the "Architectural Review" for September, 1940 Box 475.

SUBSTANTIAL FIRM of Building and Civil Engineering Contractors in the Midlands, desire to contact a reputable firm of Quantity Surveyors with a view to measuring for interim payments, payment by result scheme and settlement of final accounts. Box No. 796.

REQUIRED, R.I.B.A. Journals in good condition, January, 1938, to May, 1941, inclusive. What offers? Box 793.

WANTED. Complete set of copies of "The Architectural Review," July, 1940—June, 1942. Box 495.

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