THE ARCHITECTS' JOURNAL

THE ARCHITECTS' JOURNAL
WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER IS PUBLISHED EVERY THURSDAY BY THE ARCHITECTURAL PRESS (PUBLISHERS OF THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE) FROM 45 THE AVENUE, CHEAM, SURREY

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THE ANNUAL SUBSCRIPTION RATES ARE AS FOLLOWS:
BY POST IN THE UNITED KINGDOM... £1 3 10
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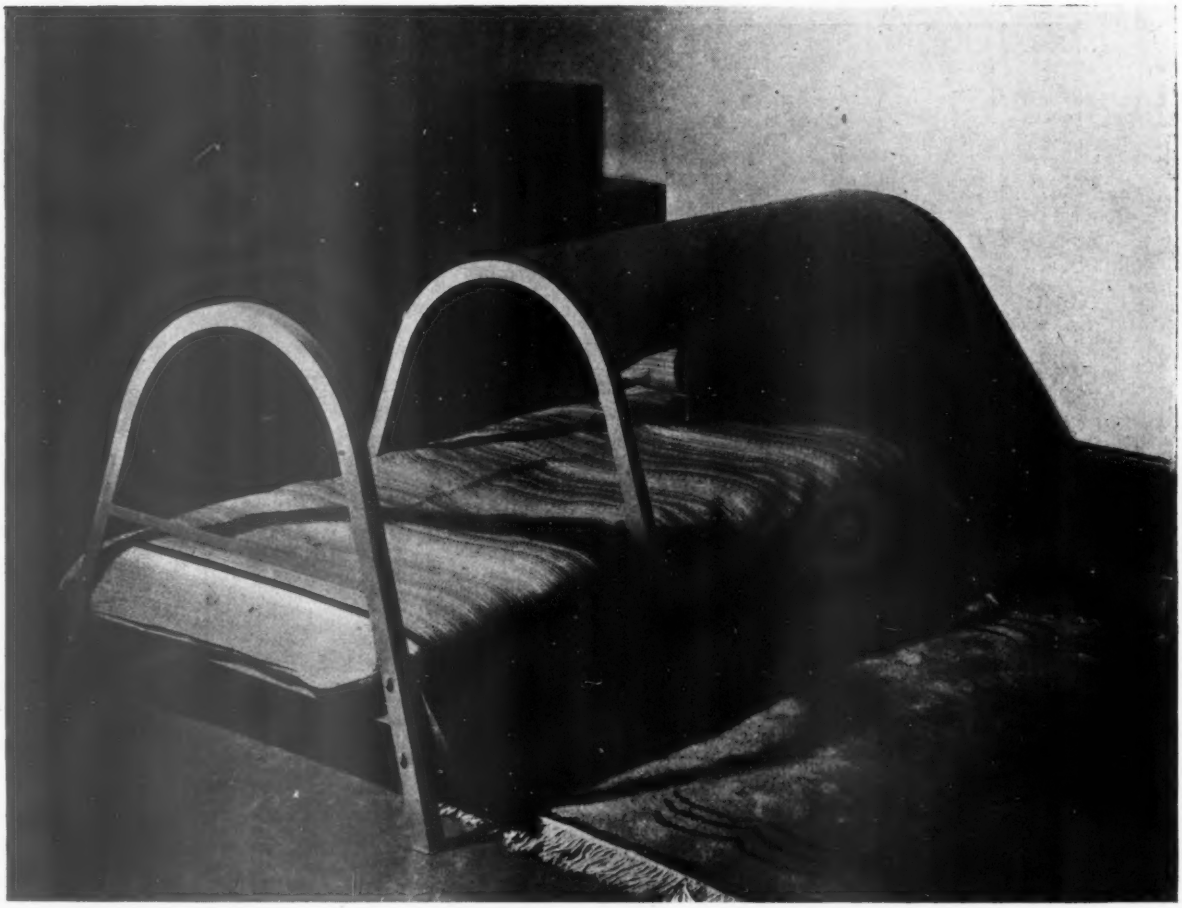
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

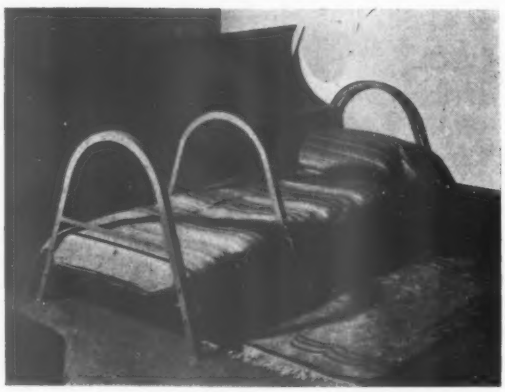
THURSDAY, APRIL 24, 1941. NUMBER 2413: VOLUME 93

PRINCIPAL CONTENTS

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.*

To obtain your copy of the JOURNAL *you must therefore either place a definite order with your newsagent or send a subscription order to the Publishers.*



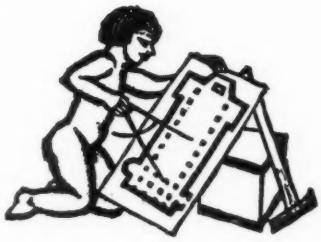


BEDS, 1941

Two photographs of a new steel bedstead produced by Messrs. Heal and Sons. The framing is strong angle iron, more rigid than usual, and the bonnet is of mild steel sheet. The bed is intended to give reasonable protection against falling ceilings and small debris thrown laterally.

THE END OF THE CRYSTAL PALACE

After being announced as imminent on several occasions during the past year, the demolition of the North Tower of the Crystal Palace took place on April 16. The tower, 280 feet high, had been a South London landmark since 1854, and was the last surviving piece of Paxton's famous building. The end of the tower is referred to by Astragal on p. 270.



THE MEN LORD REITH WANTS

The JOURNAL *has postponed until next week the second of two articles on architects and small houses. The first of these articles, published last week, considered the situation which confronted architects after the last war; and Lord Reith's recent description of the aims of the planning section of his Ministry forms a most relevant interpolation before consideration, in the second article, of what architects will probably face after this war.*

A FORTNIGHT ago, very tersely and guardedly, with the greatest care to explain the limitations of his own present powers and immediate aims, Lord Reith described to the Press the main features of a new world. Battles and budgets and call-ups coming hard on the heels of that description swept the news of it almost entirely out of the daily newspapers. But it did take place, and it was a momentous happening.

The ultimate goal towards which Lord Reith and a very small section of his Ministry are working is the application of foresight and skilled guidance to the way in which every piece of land is used, or reused, throughout the whole of Great Britain. Their immediate aim, which it is hoped to accomplish before the war ends, is to discover and if possible remove the biggest existing obstacles to such guidance.

The greater part of Lord Reith's explanation was concerned with these immediate obstacles, but it was possible to forecaste from later questions and answers the manner in which national guidance of land use will work after the war if the country decides that it must have that guidance.

First will come the big decisions made by the Cabinet and its advisers on economics, strategy, foreign and home trade and the industrial distribution most suited to national policy concerning these things. These decisions will then be given to a Central Planning Authority to translate, broadly, into terms of physical redevelopment and reconstruction.

But only very broadly. The detailed application of planning policy will be carried out by Regional Planning Authorities, in each of whom will be vested all planning powers for an area which, geographically or industrially or both, forms a homogeneous and balanced unit.

The objections which will be raised to such Regional Planning Authorities, and to other regional transfers of authority to which their creation will point, are only too obvious. But Lord Reith, it must be remembered, has a great reputation as a creator of national organizations. He has shown himself—in the creation of the B.B.C.—well able to bear adverse criticism and to push on, austerely and inflexibly, with what he believes necessary. And it is probable that a great deal of what he believes necessary will be accomplished.

It is therefore at least possible, if Lord Reith becomes Minister of Planning, that both Central and Regional Planning Authorities will in fact be set up after this war, and that they will possess the powers they need to guide, in broad and in detail, the use of all land.

If this comes about how will it affect architects? This is what the forty-six members of the R.I.B.A. Reconstruction Committee will have to decide. No one will envy them their task. The setting up of these authorities will profoundly shake the whole profession. Architects will be faced with the choice either of undertaking a vast amount of work of a new kind (and of training themselves very quickly to undertake it well) or losing almost all influence in deciding what post-war Britain will look like.

The new authorities will require very large numbers of men of a kind who can only be called architect-town planners: men who can translate, stage by stage, the great paper decisions of reconstruction into the reality of fine surroundings for every human activity.

Such men do not exist at present in anything like the needed numbers. Most architects, sickened by the negative, restrictive legalistic tangle of pre-war town planning, abandoned interest in it. The talents needed by efficient pre-war town planning officers were almost diametrically opposed to those which a constructive planner requires. Save for a few men in the housing and town planning departments of our most progressive cities and a handful of private consultants, the architect who is skilled in dealing with the problems of large-scale planning simply does not exist. But—architects should note carefully—thousands of men exist in the engineers' and surveyors' departments of small local authorities who have practical experience of laying out buildings and roads according to the niggling, mechanical principles of pre-war town planning. And some thousands of men will be needed to lay out the new Britain.

For five years the JOURNAL—right for once—has besought architects not to neglect to prepare for constructive planning. Far too few architects are so trained. After this war the real architects of reconstruction will be those who design everything except the final individual building—not the man who designs that building.

This is the situation which now faces the R.I.B.A. Reconstruction Committee.

The Architects' Journal
45 The Avenue, Cheam, Surrey
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NOTES & TOPICS

YOUNG CHILDREN IN WARTIME

THE Nursery Schools Association has opened a small exhibition at Charing Cross Underground which asks for great improvement in our arrangements for looking after young children in wartime.

*

The Association's suggestions differ markedly from the generality of demands about women, children and evacuation. They are confined to what is urgently necessary and eminently practicable.

*

It has been obvious since war began that a system of nursery schools or play centres where the young children of evacuated mothers could be looked after was much needed. This need has been increased, and will soon be greatly increased, by the intake of women into industry. It is true industrial conscription will not be applied to mothers of young children, but a great many such mothers have entered factories voluntarily, and many more will follow. It is plainly a matter of national urgency that these women should be able to leave their children in competent hands and well-equipped surroundings—by day or by night. Existing nursery schools and nursery departments do not exist in sufficient numbers in the right places, and in any case open too late and shut too early for day workers.

*

The aim of the present Exhibition is to end this state of affairs by providing centres at which young children will be looked after *well*, at any time, while the mothers work. No new buildings or elaborate expenditure are needed: clean space, simple cooking and sleeping equipment, one or two trained women and half a dozen intelligent helpers are all that is needed to free a hundred mothers.

. . . AND THEIR TOYS

The Nursery Schools Association make an excellent suggestion for supplying some of the nursery centres with the simple toys and other equipment needed. Mr. H. V. Lanchester has written a small book showing how these toys can be made by amateurs out of odds and ends of wood and packing cases, etc.—from building debris, for instance—and listing the tools and materials which would be needed. The booklet is called *Nursery Centre Equipment*, and its underlying idea is that A.R.P. workers and others with idle time to fill in could use some of it in making much of what nursery centres will have to have in large quantities. Other working parties could be started in schools, youth centres and training colleges.

THE VERY LAST BANG

One could not help feeling a very real sorrow at the news that the North Tower of the Crystal Palace had gone at last. We had been told it was going often enough; after the ten thousand explosions which had taken place in London less than twelve hours before one more might have seemed neither here nor there; yet one did feel that this explosion, dead on time, sounded the passing of an epoch and sounded it fitly.

*

Everything in the life of the Crystal Palace was unorthodox, queer, dramatic, noisy. Paxton's design was astounding, its acceptance astonishing, and the Palace itself overwhelming. The affection which it inspired in the British people, which led to its re-erection on Sydenham Hill, was inexplicable according to any accepted standards of the times. From 1854 on everything that happened in or about the Palace was odd or dramatic or both. Its band contests and bird shows, its internal vistas of dilapidated dinosaurs and crumbling statues, the bursts of flame from its fireworks or the north transept in 1866, the love it received from all Londoners, and the final glorious quarter-mile mass of flame in which it disappeared—all were very queer, very un-English.

*

I am glad I went there several times before that semi-final flare on November 30, 1936. And most of us will be glad it was with a bang that 280 feet of North Tower came crashing down to contribute 840 tons of cast and wrought iron to our present fight and write FINIS to a great building.

STANDARDIZATION JITTERS

The explanations which the Ministry of Building feels itself compelled to publish about Mr. Tait every now and then and the large labels reading "ONLY FOR WARTIME," which are fixed prominently, in advance, to every scheme for munition workers' housing, seem to show that a large number of people are ready to jump violently at any mention of standardization in, or of, the home.

*

This nervousness appears entirely contrary to reason. Our industrial set-up being what it is, an enormous range of extremely useful things can only be made available at a reasonable price by standardization. We welcome these things and use them: pens and forks, shoes and typewriters, cars and tennis rackets and tinned soups. Why, then, should there be such horror at applying to houses and

house equipment the processes which have done so much for us in other matters ?

*

The explanation seems twofold. The building and associated industries are old and are encrusted with and entangled in a maze of old craft customs, old methods, measures, diversities and byelaws with which a lot of people's money and livelihood are tied up. Sometime these things must be cleaned up, but everyone involved wants to put it off as long as possible.

Secondly, the spread of standardized products has created in the mind of the ordinary citizen a monstrously exaggerated value for unstandardized products. Subjected to continuous propaganda, by those who share this false sense of values, about the beauty of old cottages and old towns (*any* old cottage and *any* old town), " individual " houses, hand-painting and hand-embroidery, the ordinary citizen is perpetually attempting—not to produce and to use the finest possible standardized products—but to find and to appropriate for his own use some unstandardized thing, however ruinous, vulgar or shoddy.

*

The logical result of this second attitude had already occurred before the war. Most cheap British furniture was execrable because the one aim of manufacturers was to make it look unstandardized; and the State-assisted housing of some local authorities—the only seemly houses in the town—were the only houses held in contempt by all and sundry.

*

There will be no hope of this outlook being changed after the war if the Minister of Reconstruction makes elaborate excuses for every measure of standardization which it may desire to introduce.

UNTECHNICAL TECHNICIANS

I have received a letter from the Hon. Secretary of a society called Committee of Technicians in the Building Industry which seems to make very plain the point where *technical* examination of reconstruction ought to stop.

*

On March 6 I suggested that skilful public instruction in the aims of reconstruction before the end of the war would offer the best chance of public opinion being able —when the matter came to the test—to triumph over interests which will inevitably oppose one part or another of planned reconstruction. The Hon. Secretary of the Committee of Technicians in the Building Industry thinks this is not enough. He writes:

> Necessary as public discussion and information of that sort are surely it is futile to imagine that this alone can achieve anything while those who have the power to obstruct still hold it. They are not going to be talked out of it. They will continue to control the government in their own interests as long as they are allowed to.
>
> Surely, therefore, a genuine first step towards reconstruction is to *replace* the government by one in which vested interests shall have no power and which will be free to replan the people's land and resources in the sole interests of the mass of the people.

I have frequently contended that architects should not shrink from taking part in a controversy of technical or professional importance just because it can be construed as being, in some senses, a " political " issue. But I think the first step advocated by the Committee of Technicians is silly for two reasons.

*

(1) The composition of the Government or the Commons is not in any sense whatsoever a technical question, and therefore a technical organization which advocates altering that composition can only by so doing diminish its influence on technical questions.

(2) It portrays an exceptional political *naïveté* to envisage a Government free from vested interests of all kinds. Anyone who represents anything represents vested interests —of Civil Servants, local officials, or trade unions, if not of beer, landownership, or big banks. And it may prove as wrong to believe that all the representatives of local officials (some of whom may lose their jobs through reconstruction) will be on the sides of the angels in this great matter as to believe that all landowners will be on the other side.

EASTER CAMEO

At the station, the booking hall, seats, barrows and all else were crowded to capacity. Streamers of people trailed from ticket office windows, wound round the enclosure, crossed and mingled. Overhead a loud-speaker with a Yorkshire accent announced train departures.

*

Travelling of necessity, I had almost forgotten the morrow would be Easter Sunday. Not so my fellow travellers. There was a war on, but, after all, it was Easter. The train filled and filled. Everything was full. There were four people in the lavatory. Discomfort was unrecognized: it was Easter, but, after all, there was a war on.

*

" Would you mind if Claude 'ad your window ?" asked the woman in the pink blouse. " It'll keep him quiet like." Claude squirmed fatly half on the seat, half on the floor. Safety lay in retreat. Claude got his window and covered it with steam and hand-prints of horrifying patterns. His handiwork was watched with out-of-focus gaze by a baby across the compartment.

*

It became hot. Smoke hung above the blackout margins to the windows; the baby coughed and began to cram bits of a popular daily into its mouth. A soldier's equipment fell off the rack and startled Claude. I tried to read.

*

It became hotter. The man with the masonic watch-chain swapped weeklies with the girl in the corner. The dyed squirrel offered me a heart-to-heart story, *Lucy Faced Life with Flying Banners Until* . . . I had a book, but would she like my *New Statesman* ? She thought not, but thanked me ever so.

*

It became awful. Two trainers passed over. " Plynes !" said Claude, bumping me fatly.—" 'Urricanes !" said the masonic man. We craned our necks, impressed. The baby began to make dreadful noises. My head was aching.

" We're very late," said the girl in the corner.

ASTRAGAL

NEWS

CARDIFF TECHNICAL COLLEGE

Mr. W. S. Purchon, M.A., F.R.I.B.A., head of the Welsh School of Architecture, one of the departments in the Technical College, Cardiff, has been appointed Acting Principal of the College.

COMMUNITY CENTRES

At a meeting of the Housing Centre, held on April 15, Mrs. Flora Stephenson opened a discussion on Community Centres. Mr. F. Sewell Harris presided. The lecturer said that since the outbreak of war community centres had been taken over for various purposes, funds were no longer available for new ones, and materials had been diverted to more important building programmes. But in the case of Swansea and Reading the buildings had been completed, and at Leicester, where a centre had been built by the Education Authority just before the war, that authority had been encouraged to go ahead and provide another which could be used during the war. Mr. Boot, the Chairman of the National Housing Trust, had built a centre on one of his housing estates, and had planned to build another, for which he was to provide half the money and the National Fitness Council the other half. Within the next year or so a number of community centres would be built in connection with the hostels to be provided for war workers.

Major Carter said the audience must not form a wrong impression as to the extent to which the movement had grown. At the outbreak of war there were about a hundred places with some claim to be called centres, but of these only twenty were beginning to be effective. The others were not adequate in the sense of providing accommodation for all the varied activities that went on in a proper centre. Very few community centres were being used as such during the war: that at Swansea was a hospital.

CARDIFF CIVIC SOCIETY

The annual report of the Cardiff Civic Society for 1939-40 states that owing to the conditions arising out of the war, the Executive Committee has felt that, while the Society should be kept in being, its activities must necessarily be curtailed. It seemed undesirable to attempt to arrange an annual meeting; the membership of the Executive Committee has therefore remained unaltered, except where the affiliated societies have indicated a change in their representatives. The Society has warmly welcomed the gift to the City of 110 acres of land at Leckwith made by Western Ground Rents Limited.

TWO CORRECTIONS

In the monthly statement of Price Changes published in the JOURNAL for April 3, the cross-heading over the table of changes of price was incorrect. This heading should have read—"Increases over last pre-war prices at end of . . ." January, 1941, etc.

The JOURNAL regrets that owing to a printer's error the name of Mr. T. ALWYN LLOYD was incorrectly given in the Consultants' Panel on Physical Planning published on page 256 of last week's issue.

LETTERS

CAPTAIN R. L. REISS

Welwyn Revisited

SIR,—In your issue for April 10 "Astragal" makes comments upon Welwyn Garden City which purport to be based upon the results of bicycling about in the town whilst spending a few nights there. It would appear, however, that he failed to make enquiries in responsible quarters, and it is difficult to believe that his bicycle tour can have been very thorough, otherwise he would not have made such a number of errors on matters of fact. Space only permits of my giving a few examples.

He says: "I much doubt whether anyone in outlying Garths and Closes can get to the nearest shop in twenty minutes' hard heel and toe. There is no variety of building, only houses, and mostly detached 1,500 pounders and upwards. This tendency seems to be heading Welwyn straight for being a somewhat self-satisfied colony for £700-a-year families . . . it contains one sweet and tobacco shop apart from the Welwyn Stores . . . no one, except non-smoking diabetics, is going to stand out for the adequacy of one."

He says he failed to find any subsidiary shopping centre, and although he was told there were three or four public houses, he could only find one.

If any care had been taken to make even a cursory investigation and a few enquiries he would have discovered the following facts:

1. That there are over 4,400 houses, of which less than 20 cost over £1,500.
2. That there are 2,618 houses let at weekly rents and over 400 more of a similar size let at monthly rents.
3. That most of the remainder cost under £1,000.
4. That during the four years to December, 1939, of the 1,400 dwellings built over 1,000 were weekly rented, 115 were flats and only 8 cost £1,500.
5. That there are 36 shops, including Welwyn Stores and its branches.
6. That 95 per cent. of the houses are within 10 minutes' walk of the nearest shop.
7. That at the outbreak of war there were 15 different places where cigarettes and tobacco could be purchased (two of them have since been close owing to difficulty of getting supplies).
8. That there are five public houses.
9. That there are over 80 factories with nearly 5,000 employees working in them.
10. That in addition there are a number of schools (including a nursery school), two theatres, a large Local Authority Community Centre, as well as a number of other buildings used for social intercourse, three banks, a hospital, and other buildings which cannot be classed as houses.

I suggest that whilst it is obviously desirable that there should be the frankest comment upon experiments such as Welwyn Garden City, anyone who is writing for a responsible journal such as yours should take care to ensure that the comments are based upon facts. This is the more important as the whole question of industrial decentralization is likely to be a major issue in post-war reconstruction.

That Welwyn Garden City deserves serious consideration may be evidenced by the fact that in publications issued by the United States Government at Washington, based upon the results of the work of official investigators sent to Great Britain in the years before the war, Welwyn Garden City is singled out for praise. In one such publication it is described as "a model of scientific planning."

R. L. REISS
Director

Welwyn Garden City

Astragal writes:

A visitor, like a resident, does not judge a town by statistics but by personal experience and by comparison with other towns. By his statistics Captain Reiss proves me wrong in saying that the detached houses of outer Welwyn are "mostly 1,500 pounders and upwards." This inaccuracy I regret. Apart from this, the statistics seem to me to increase rather than diminish the force of my comments.

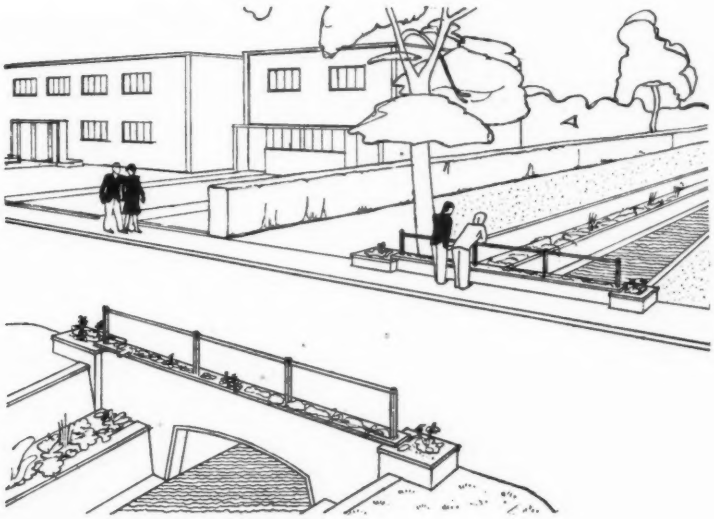
I said that Welwyn contained one sweet and tobacco shop besides the Welwyn Stores. Captain Reiss sidesteps this allegation by saying that there are 13 places where tobacco and cigarettes can be obtained. It would be interesting to know how many of these are open at 5.50 p.m.

Again, Captain Reiss says that Welwyn (a town of 22,000 inhabitants with 80 factories employing 5,000 people) has 36 shops. On reading this I telephoned a woman of intelligence who lives in Welwyn Garden City and asked for her opinion of Welwyn's shopping facilities. She replied that she believed 26 of these 36 shops must be in the Centre and that, apart from the Welwyn Stores and the Co-operative Stores, the Centre did not, in her belief, contain even one example of any of the following shops: butcher, baker and confectioner, fishmonger and poulterer, grocer. With the same exceptions, she felt pretty sure there was not more than one newsagent, one tobacconist and confectioner, one fruiterer and greengrocer, and one chemist.

CHANGE OF ADDRESS

Messrs. J. W. Rowsell & Company (chimney construction and repair), have moved from 172 Buckingham Palace Road, S.W., to 22 George Street, Croydon (Telephone: Croydon 1957).

STUDY IN DETERMINATION



COVENTRY

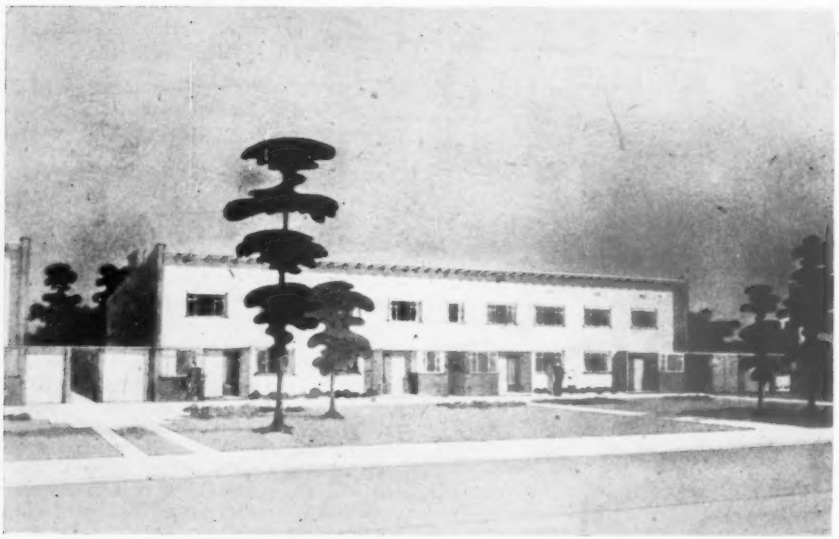
1: WARTIME

The bombardment of the centre of Coventry last November has gained for the city a special degree of public sympathy and interest. It is therefore natural that reports of plans for a new Coventry should have implied that such preparations were only started after the raid. In fact, the blitz in part postponed temporarily and in part redirected development schemes which were begun before the war. These schemes, prepared by Mr. D. E. E. Gibson, City Architect, and his Department, took two main forms : a general long-term plan for the improvement of the whole city, and an immediate plan for supplying urgent housing needs.

Up to the blitz the housing plans were steadily pushed forward despite constant changes in the materials available; after the blitz, construction was held up for a period and is now continuing rapidly. The general redevelopment plans for Coventry might be said to have been given a flying start by the bombardment. Improvement in other cites must begin outside and work inwards with extreme slowness: Coventry can begin at the centre directly the war ends.

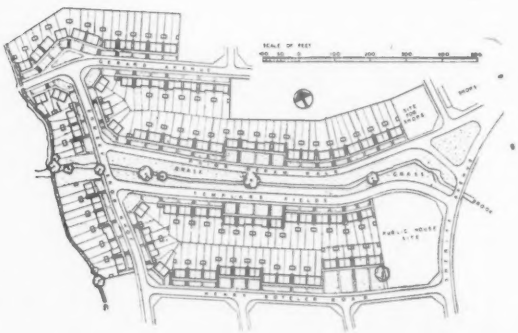
On the following pages appears a progress report of the stages now reached in both parts of Coventry's building programme— WAR-TIME HOUSING AND POST-WAR REDEVELOPMENT.

WARTIME COVENTRY: HOUSING



D. E. E. GIBSON, CITY ARCHITECT

Assistants : J. A. Miller, R. P. King, H. J. Lake, F. B. Raynor, D. S. Craig, W. H. Hulley, P. E. A. J. Marshall, T. E. Howe



HOUSING PROBLEM—After war began the housing shortage which had previously existed in Coventry became more acute and it was decided, despite war-time difficulties, to proceed with the building of the houses most urgently needed. Preparations for doing so were continuously and severely impeded by shortages first of one material and then of another, each of which compelled the Architect's Department to work in terms of new constructional methods and new knowledge of effects of blast.

PRESENT SCHEME—The schemes now under construction comprise about 2,000 houses on sites of varying size. The lay-out adopted on these sites had to reconcile an advance on usual housing lay-outs with A.R.P. requirements and the avoidance of any unusual and therefore distinctive lay-out pattern.

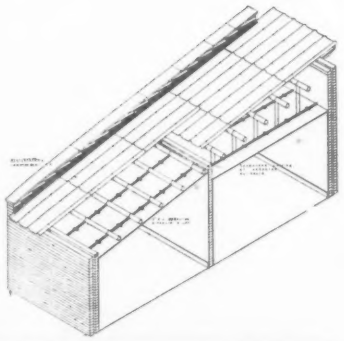
PLANNING—The planning of individual houses provides rooms of good shape within an extremely simple wall plan. Internal walls run through both floors in order to increase stability of the structure and provide standard floor spans of convenient proportion; large larders are provided as air-raid shelters and fitted to take 3-tier bunks. Most of these larders have two walls between them and the gardens on every side.

Top: A perspective, by Mr. R. Myerscough Walker, of one of the housing blocks. The one-slope roofs shown in this drawing were later abandoned.

Centre : A perspective of one of the blocks now building.

Left: Lay-out plan of one of the housing sites.

SCHEMES IN PROGRESS



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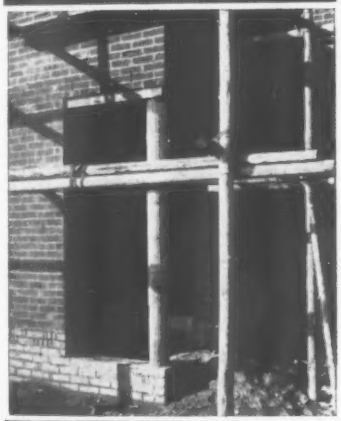

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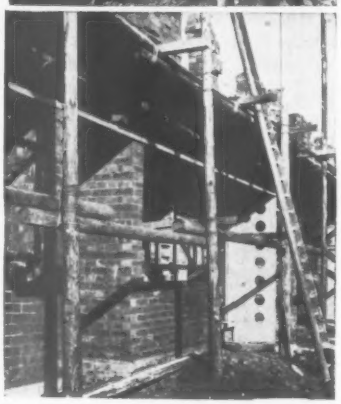

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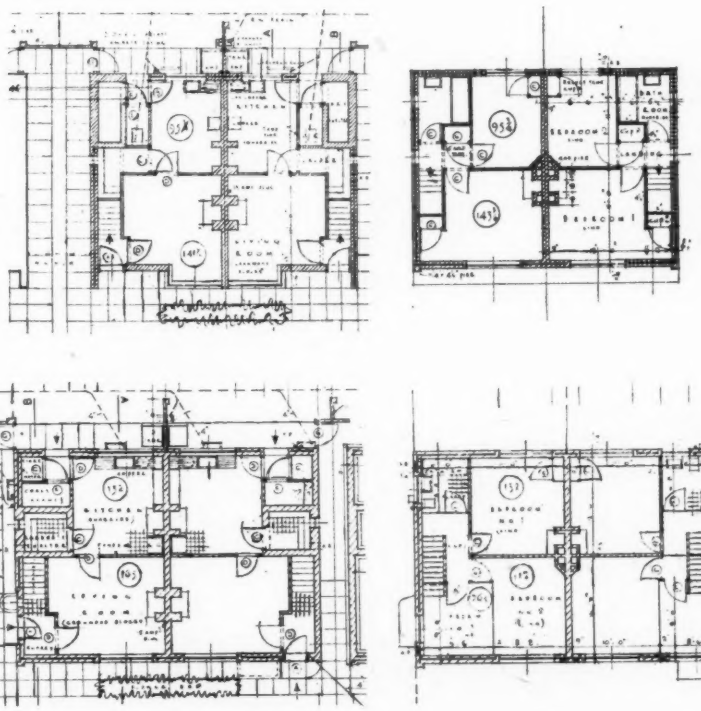
CONSTRUCTION—Before the schemes were put in hand a great range of constructional methods were examined. Those finally adopted appeared to offer the best compromise between durability, good appearance and materials available in war-time. It will be noticed that the use of reinforced concrete stairs, first floors and roofs is the main departure from peace-time practice in small housing. It seems possible that this innovation may become general in post-war small housing.

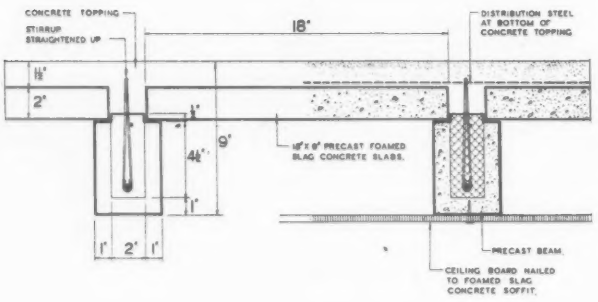
Walls: 11 in. brick. Partitions: 4½ in. brick. Ground floors: 6 in. lean concrete, 3 in. hollow tiles set in this when green, 2 in. fine concrete, wood composition blocks and quarry tiles. First floors and roofs: Myko concrete (see next page); lino finish. Wall finish: plaster. Roof finish: 3-ply bituminous felt and gravel. Ceilings: plasterboard. Staircases: precast concrete. Doors: flush with metal trim. Windows: steel casements. Guttering and down-comers: asbestos cement.

On the left: 1. One slope asbestos cement roof and tubular trusses which was one of the constructional methods considered for use in the schemes and later abandoned. 2. One of the precast concrete stair units used throughout the scheme: the lugs are built-in. Note blocks let in for stair carpet holders. 3. Column at back door; clay pipes are used as permanent shuttering. 4. Canopy over front door and bay; the hood is of *in situ* concrete, vertical pierced screen is precast. Upper surface of hood has asphalt flashing, soffit within bay is finished with insulating board.



Ground and First Floor plans of two typical housing types.

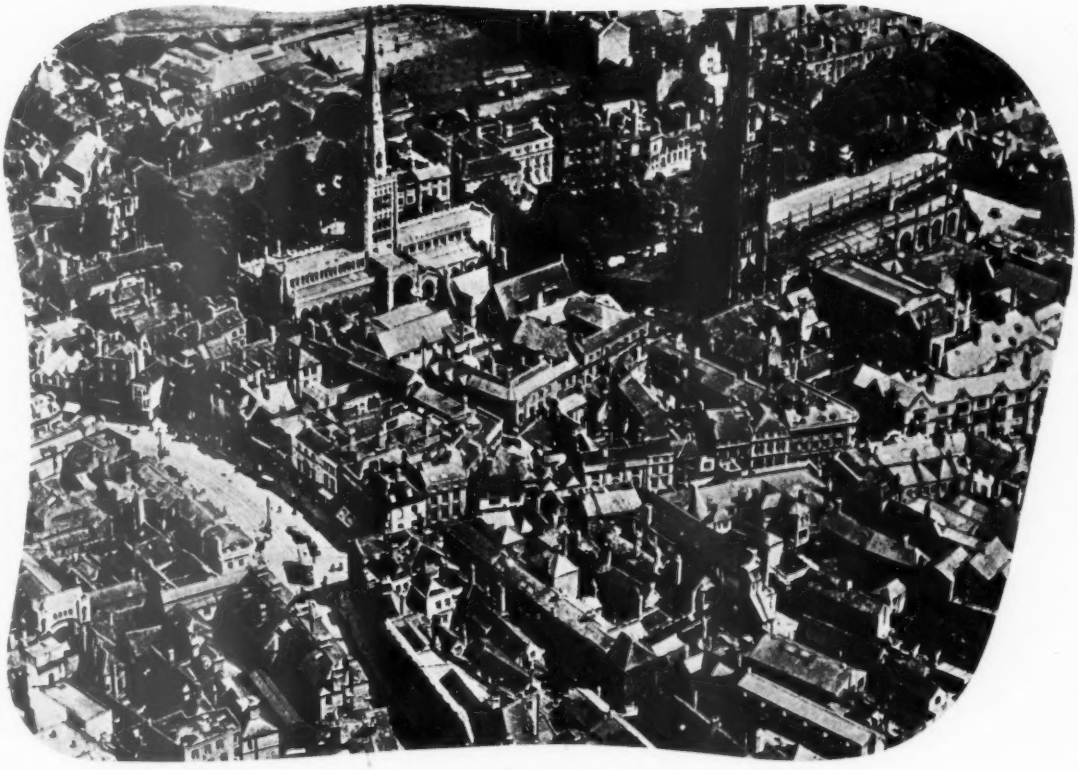
FLOORS AND ROOFS—The "Myko" floor, which has been used for all floors and roofs at Coventry, is a combination of *in situ* and precast concrete. The beams consist of a core of high-grade concrete encased, while still wet, with foamed slag concrete on both sides and soffits. The upper photograph shows these beams in position with stirrups projecting ready to have reinforcement of topping layer threaded through them. The second stage of construction consists in dropping between the beams 18×9×2 in. foamed slag blocks (see left). Finally, topping reinforcement is laid followed by 1½ in. fine concrete topping layer. When topping layer has set floor becomes series of tee-beams. On roofs topping layer is laid to falls to avoid separate screed. Ceilings are foamed by plaster-board nailed direct to foamed slag soffits.



WARTIME COVENTRY • HOUSING

COVENTRY

2: POST-WAR



A PLAN FOR REDEVELOPMENT

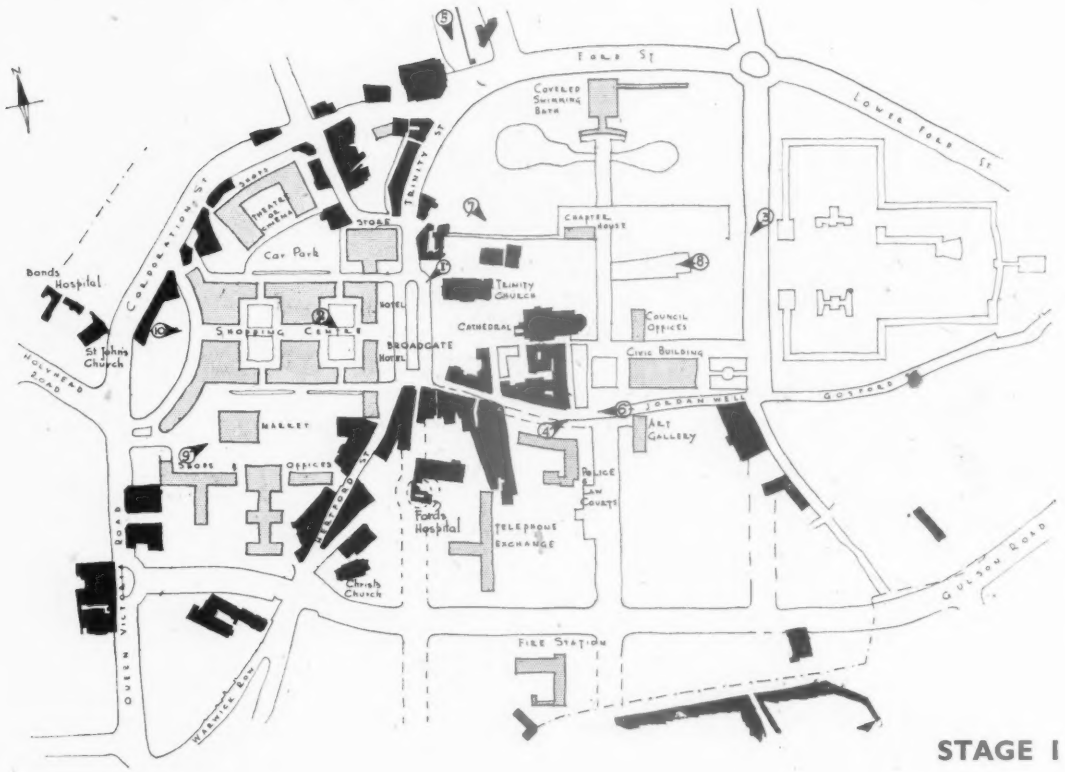
D. E. E. GIBSON, CITY ARCHITECT

Assistants : J. A. Miller, R. P. King, H. J. Lake, F. B. Raynor, D. S. Craig, W. H. Hulley, P. E. A. J. Marshall, T. E. Howe

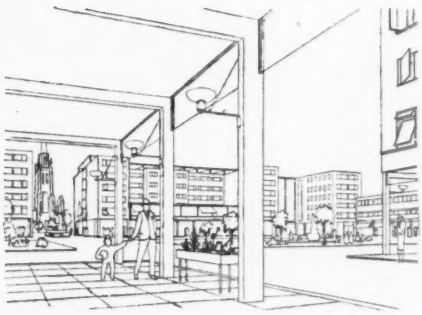
The centre of the city of Coventry covers the top of a low conical rise. Its original nucleus was that of any ancient English city—a market-place and two or three streets and churches. But as the area of which Coventry is the centre became industrialized, Coventry itself became increasingly congested, and narrow twisting streets had to carry traffic far beyond their capacity. When war began, the City Architects' Department were preparing a scheme for the remedy, over many years, of congestion in the centre of the City. The German attack on Coventry has made it possible for great improvements of the centre to be carried out directly the war ends. The City Architects' Department are preparing a draught scheme of redevelopment which could be carried out in stages. This scheme is illustrated on the following pages together with sketches which have been prepared to illustrate its detailed application.

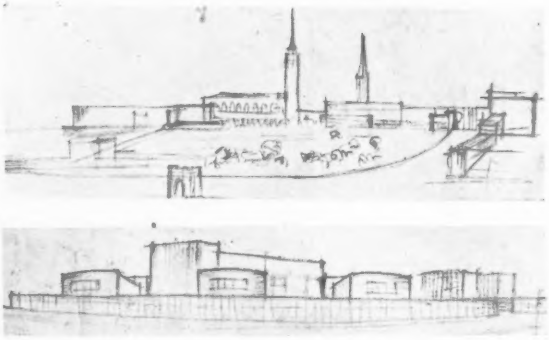
Above : A pre-war photograph of the centre of Coventry with Broadgate in the left centre and Trinity Church and Coventry Cathedral beyond it. Right: After the blitz in Coventry.

POST-WAR COVENTRY • A SCHEME



STAGE I

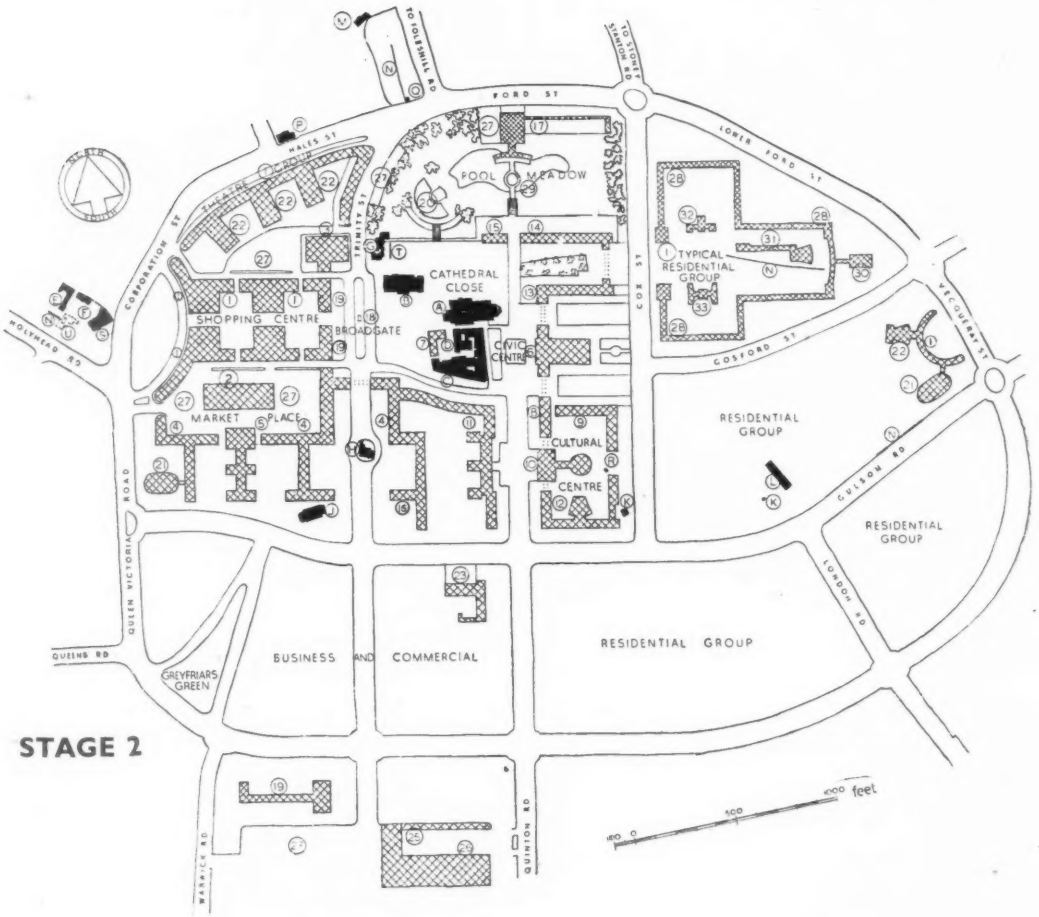




STAGE I—A redevelopment scheme which could start directly war ends. The areas coloured black on the plan above contain historical or modern buildings which it is desirable to retain—at least until the recent buildings become out of date. It will be seen that Broadgate is still the "centre" of the City. Areas tinted on the plan represent building schemes on sites which were already scheduled for slum clearance before the war or else suffered in the blitz. This first stage of redevelopment has three principal aims: to improve traffic circulation and capacity; to "open up" individual building units; to group together buildings which cater for the same form of activity—shopping, administration, recreation, business.

The sketches illustrate two of these aims: "opening up" around the Cathedral and Broadgate and grouping of theatres and cinemas.

FOR REDEVELOPMENT OF THE CENTRE



KEY TO PLAN

OLD BUILDINGS TO BE PRESERVED

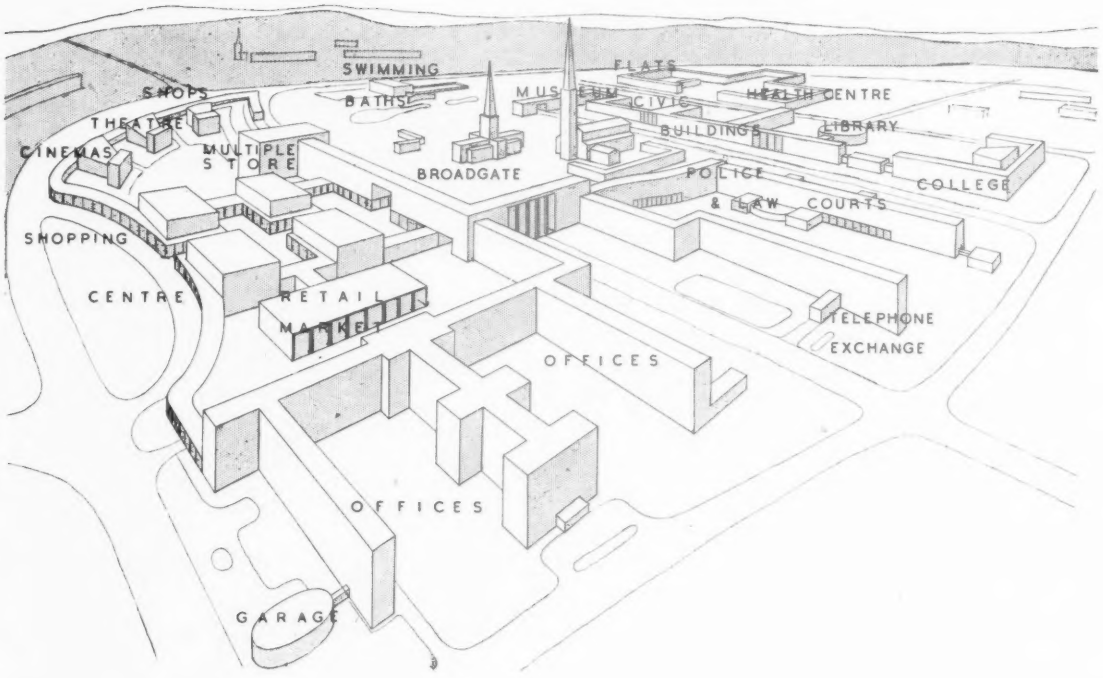
A Cathedral
B Holy Trinity Church
C Council House
D St. Mary's Hall
E Bond's Hospital
F Museum
G Bluecoat School
H Ford's Hospital
J Christ Church
K Gate
L Carmelite Monastery
M Cook St. Gate
N Remains of City Wall
P Old Grammar School
Q Swanswell or Priory Gate
R Remains
S St. John's Church
T Old Cathedral
U Suggested Re-siting of Ford's Hospital.

NEW BUILDINGS

1 Arcaded Shops
2 Retail Market
3 Multiple Store
4 Shops and Offices
5 Banks
6 Civic Halls
7 Council House Ext.
8 Art Gallery
9 Art School
10 Library
11 Law and Police Courts
12 University College
13 Council Offices
14 Museum
15 Chapter House
16 Telephone Exchange
17 Covered and Open Baths
18 Godiva Statue
19 Hotel
20 Open Air Theatre
21 Garages
22 Theatre or Cinema
23 Fire Station
25 'Bus Station
26 'Bus Garage
27 Car Parks
28 Flats
29 Band Stand
30 Baths
31 Community Centre
32 Nursery School
33 Health Clinic

STAGE 2—A preliminary study of the centre of Coventry as finally redeveloped. It is of course not suggested, at this stage, that this plan shows more than the general disposition of main routes, grouping of activities and proportion of open space to buildings towards which Coventry should be steered. But it is of great interest in showing the processes of thought by which a City can become a far better place while still retaining individual historic buildings and the broad lines of its former lay-out. The whole scheme is one of those now being studied by the committee set up by Lord Reith to investigate the obstacles to proper redevelopment in badly damaged areas.

D. E. E. GIBSON, CITY ARCHITECT

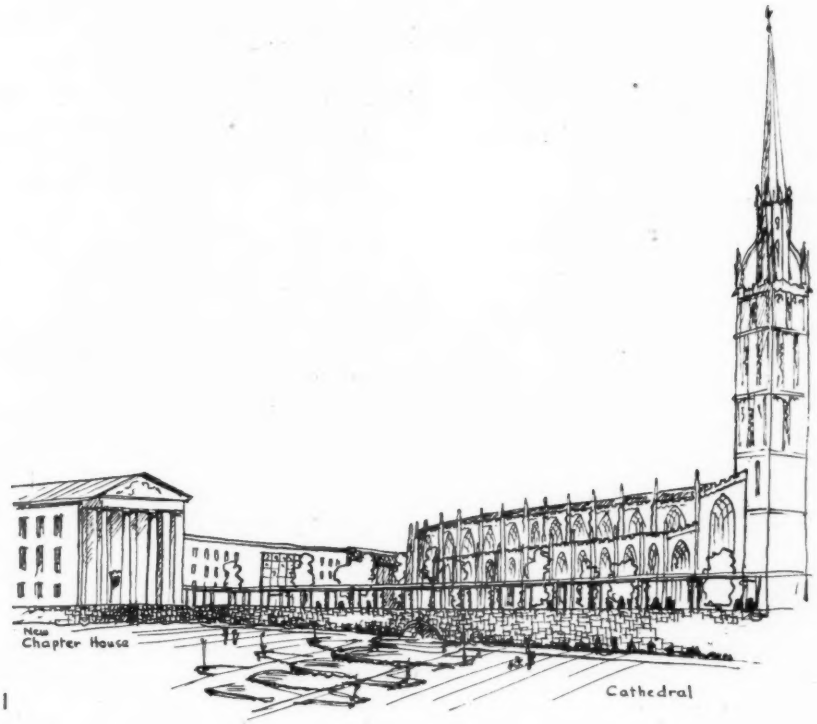


Top: A block perspective showing the general relationship of the various building groups proposed in the final scheme. The Cathedral spire remains the focal point from all directions. This perspective should be studied in conjunction with the plan and key on the previous page.

Below: A sketch of possible redevelopment of Broadgate.

POST-WAR COVENTRY: A SCHEME FOR REDEVELOPMENT

POST-WAR COVENTRY: A SCHEME FOR REDEVELOPMENT



1

2

D. E. E. GIBSON, CITY ARCHITECT

Three more of the sketches prepared by the Architects' Department to illustrate the general effect of a redeveloped centre in Coventry. The sketches, very wisely, show the reasonable stylistic diversity in design which will certainly occur in practice and which it would be folly to attempt to prevent save in individual building groups.

1. *A view in Cathedral Close from the north-east showing a new Chapter House.*

2. *Looking east towards the new retail market in the market-place.*

3. *Looking east along the main axis of the new shopping centre. In the foreground is the segmental bus terminal point.*

SOME QUESTIONS ANSWERED THIS WEEK:

★ *COULD you give me any information on the Defence (General) Regulation No. 56A about private building not exceeding £500?* - - Q692

★ *CAN you tell me how to install an electric fan in a works canteen kitchen to obviate steam condensation?* - - - - Q693

★ *CAN you recommend any treatment for resurfacing a wood block floor damaged by grease?* - Q694

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.

Enquirers do not have to wait for an answer until their question is published in the JOURNAL. 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. Samples and descriptive literature sent to the Information Centre by manufacturers for the use of a particular enquirer are forwarded whenever the director of the Centre considers them likely to be of use.

Questions should be sent by post to—

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45 THE AVENUE, CHEAM, SURREY

—but in cases where an enquirer urgently requires an answer to a simple question, he may save time by telephoning the question to—

VIGILANT 0087

The reply will come by post.

Q692

ARCHITECTS, NOTTINGHAM.—*According to Defence (General) Regulation No. 56A no consent is required "if the estimated COST of undertaking or completing the work involved DOES NOT EXCEED £500." We would be grateful if you could give us some information on the following points:*

1. *To what authority, if any, does one have to prove, and in what manner, that the undertaking is not costing any more than £500?*
2. *Or does one just proceed and wait for some inspector or other to come along and check up?*
3. *Is a Tender on a Bill of Quantities accepted as proof by the appropriate authority?*
4. *Does the cost of £500 refer to the work and material of the construction only—e.g. concrete foundations, brickwork, timber, floors, windows, doors, etc.?*
5. *Are fittings such as fireplaces, baths, washbowls, w.c.'s, sinks, electrical fittings, etc., to be included in the £500, or are they allowed to be excluded and treated as extra and separate items?*

Your assistance on the above questions would be much appreciated.

The limit of cost for unlicensed building works has now been reduced to £100.

It is not necessary to prove that the cost of the undertaking will be less

998

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THE PRINCIPLES AND APPLICATION OF COMMON WELDING PROCESSES

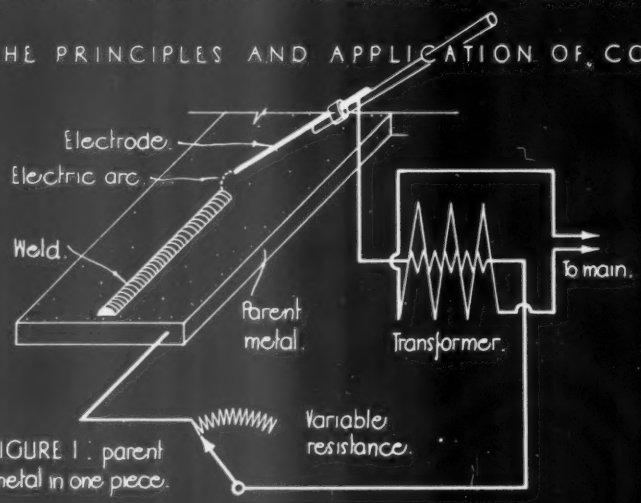

FIGURE 1 : parent metal in one piece.

DIAGRAMS ILLUSTRATING THE PRINCIPLES OF ELECTRIC ARC WELDING

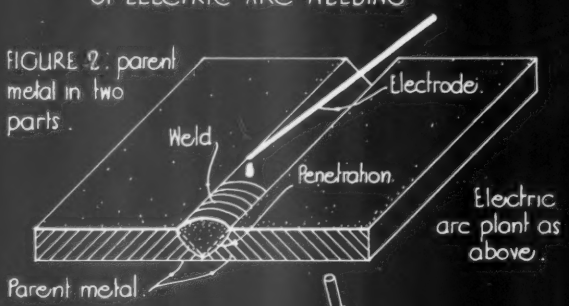

FIGURE 2 : parent metal in two parts.

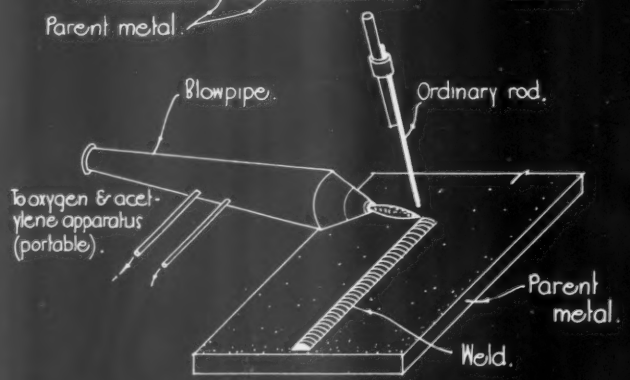

FIGURE 3 : PRINCIPLES OF OXY-ACETYLENE WELDING.

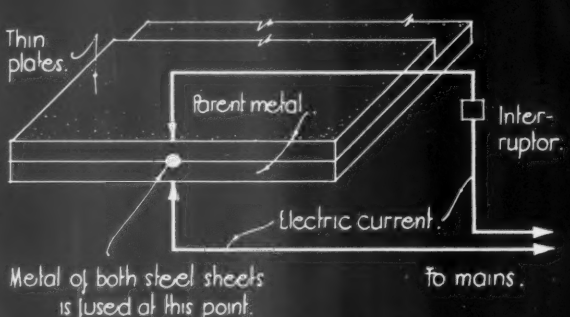

FIGURE 4 : PRINCIPLES OF ELECTRIC RESISTANCE WELDING.

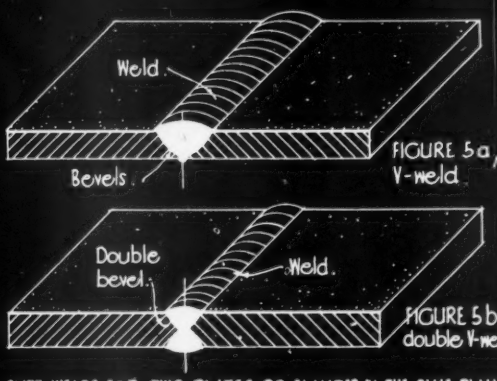

FIGURE 5a, V-weld.

FIGURE 5b, double V-weld.

BUTT WELDS FOR TWO PLATES OR FLANGES IN THE SAME PLANE.

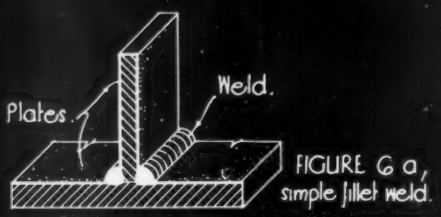

FIGURE 6a, simple fillet weld.

FILLET WELDS FOR TWO PLATES IN DIFFERENT PLANES.

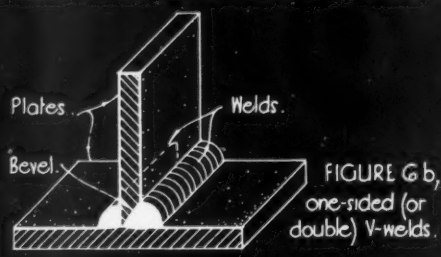

FIGURE 6b, one-sided (or double) V-welds.

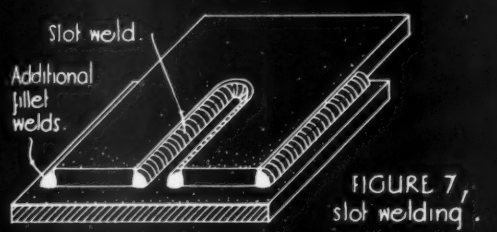

FIGURE 7, slot welding.

SPECIAL WELDS FOR THICK PLATES HAVING LARGE CONTACT AREAS.

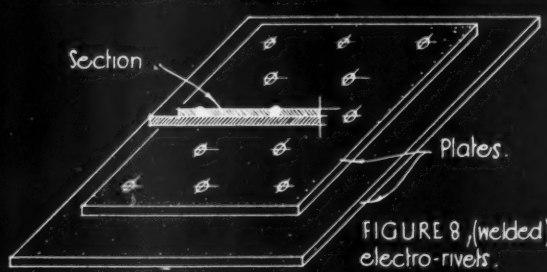

FIGURE 8, (welded) electro-rivets.

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INFORMATION SHEET : STEEL FRAME CONSTRUCTION 49 : WELDING No 5.
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INFORMATION SHEET

• 826 •

STRUCTURAL STEELWORK

Subject: Welding 5: The Principles and Application of Common Welding Processes.

General:

This series of Sheets on welded steel construction is a continuation of a preceding group dealing with riveted and bolted construction, and is intended to serve a similar purpose—namely, to indicate the way in which economical design as affected by general planning considerations may be obtained.

Both the principles of design and the general and detailed application of welded steelwork are analysed in relation to the normal structural requirements of buildings. The economies in cover and dead weight resulting from the use of lighter and smaller steel members and connections are taken into consideration in the preliminary arrangement of the building components in order to obtain a maximum economy in the design of the steel framing.

This Sheet is the fifth of the welding group, and illustrates the principles and application of common welding processes.

Structural Welding Processes:

There is a large number of welding processes in existence, but of these only three are of importance for structural welding. These are:

1. Electric arc welding.
2. Oxy-acetylene welding.
3. Spot (resistance) welding.

Electric arc welding is at present the most important of the three, and is the one usually adopted for workshop, and frequently for site welding.

Oxy-acetylene welding has the drawback that the heat created is so great that distortion of material, and stresses due to this, cannot always be avoided. Oxy-acetylene welding will be used at the site, however, for occasional welds, as the apparatus is the same as for cutting and is usually included in erection plant, whereas an electric arc plant would have to be specially provided, a procedure which is economical only if the amount of welding justifies the expense.

Spot welding is mostly restricted to sheet steel, but with the growing importance of this material its increased application in structures can be expected.

Electric Arc Welding:

The principle of electric arc welding is shown in Figures 1 and 2. The welder holds a rod (electrode), which is connected to a transformer, and whenever the distance between the electrode and other metal is kept within certain limits, an electric arc is created between the end of the electrode and the metal if the latter is connected to the other pole of the generator. When this arc is set up, the temperature at both ends of it rises, and the metal melts immediately.

When the electrode is held as shown in Figure 1, with the end approaching a piece of steel (usually called the parent metal), the molten metal of the electrode is deposited in immediate contact with that of the larger piece—i.e., the parent metal—due partly to electric action and partly to gravitation.

If the parent metal consists of two parts, as shown in Figure 2, each of which melts, a bead of molten electrode can be deposited which connects the two parts. By proper selection of materials for the electrode, by control of the current, and by keeping the length of the arc constant, a weld can be produced which has approximately the same or even better qualities than the parent material. It is essential also that the parent metal is liquefied sufficiently to allow adequate "penetration."

Oxy-Acetylene Welding:

With oxy-acetylene welding (Figure 3) the electrode is replaced by an ordinary rod in addition to a blowpipe. As the rod shortens during welding, it has to be pushed forward so that the rod always keeps its position relative to that of the nozzle of the blowpipe. No generator is required for oxy-acetylene welding, and the portable apparatus is therefore independent of any installation.

Electric Resistance Welding:

With resistance welding an electric current is set up passing from one piece of metal to another. At the connecting points the resistance is so much greater than within the material that during a short burst of current the connecting surfaces are heated more than the surrounding steel, are momentarily liquified, and become coherent. Resistance welding is dependent on accurate surfaces and the use of thin steel plates, and is, therefore, commonly used for sheet steel. It is mainly used in the workshop. See Figure 4.

Welds for Steel Construction:

In ordinary steel construction, resistance welding is not used, and the following types of weld are the most common when using electric arc or oxy-acetylene welding:

1. Butt welds—i.e., connecting two plates or flanges which are in the same plane. Figure 5a and 5b.
2. Fillet welds—i.e., connecting two plates which touch each other in different planes. Figures 6a and 6b.

In order to produce butt welds, the material must usually be bevelled, thus producing **V** or double-**V** welds. Fillet welds may simply follow the shape of the plates, or if one of the plates is bevelled, become one-sided **V** or double-**V** welds.

Welds for Thick Plates:

Special types of welds may be arranged where two plates touch each other over a large area. These are slot welds and electro-rivets. Figures 7 and 8.

Previous Sheets:

Previous Sheets of this series on structural steelwork are Nos. 729, 733, 736, 737, 741, 745, 751, 755, 759, 763, 765, 769, 770, 772, 773, 774, 775, 776, 777, 780, 783, 785, 789, 790, 793, 796, 798, 799, 800, 801, 802, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 816, 819, 822, 823, and 824.

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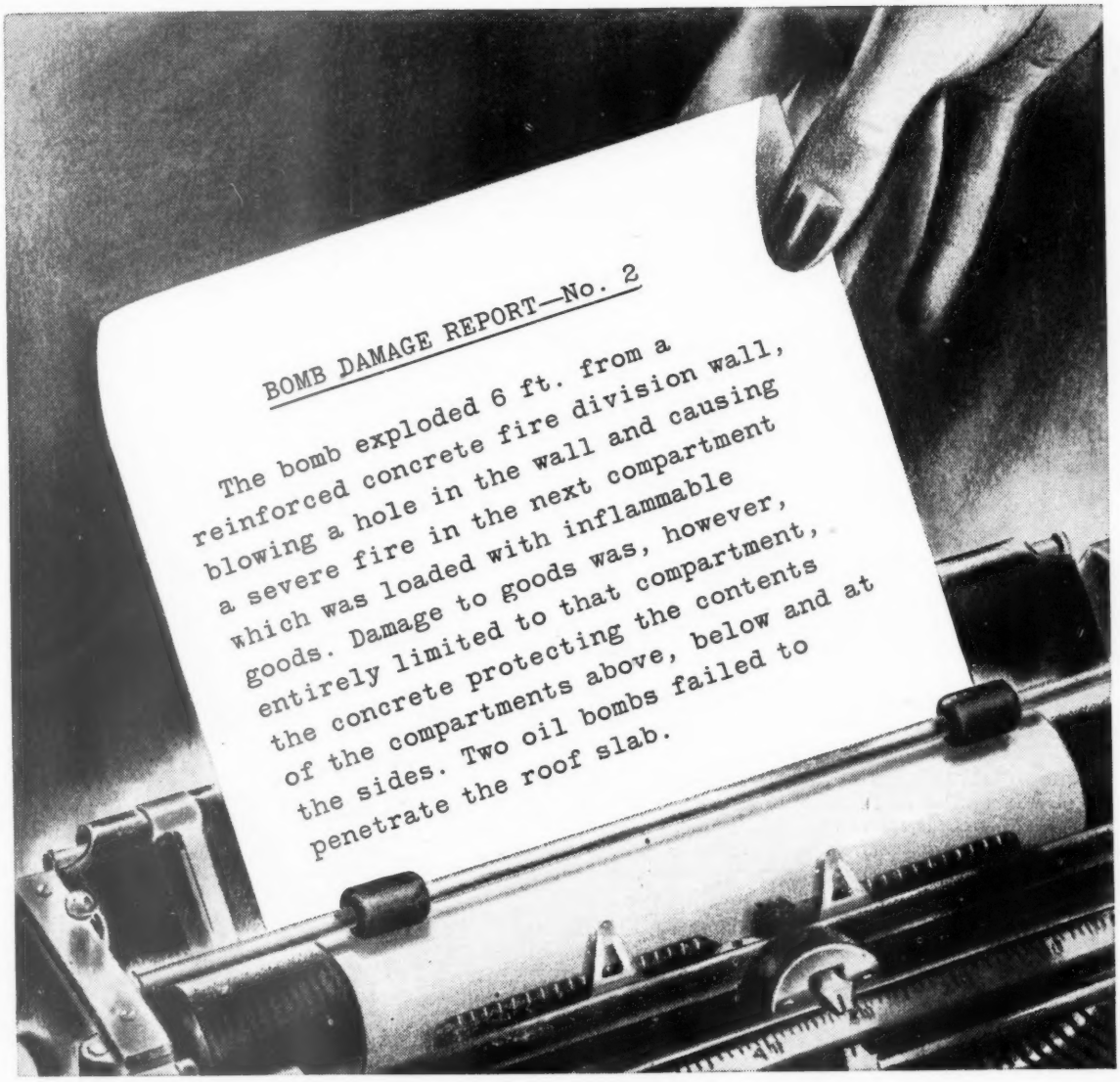

War proves materials as well as men and air raids have fully proved the unique fire-resistance of reinforced concrete. Concrete may spall but it does not twist or distort; there is no collapse of the structure. After the great Crystal Palace fire the concrete staircase alone—apart from the towers—was left undestroyed. In peace time fire does millions of pounds worth of damage a year. Yet it would be an almost negligible risk if all buildings were of reinforced concrete.

CEMENT AND CONCRETE ASSOCIATION

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than £100 before starting work, but if the undertaking does cost more than £100 the employer will have offended against the regulation and may be liable to imprisonment for a term not exceeding two years or to a fine not exceeding £500, or both. It is permissible for an offender to defend himself on the grounds that immediately before the operation was begun he had every reason to think that the cost of the operation would not exceed £100.

It would seem that a *bona fide* tender based on a Bill of Quantities would constitute a defence against a charge of offending against the regulation, but as the penalties are heavy you might think it worth while placing the matter before your local Licensing Officer (the Licensing Officer, H.M. Office of Works, Commerce Chambers, Parliament Street, Nottingham. Phone: Nottingham 40039). All electric light and sanitary fittings are considered to form a part of the building, and the cost of the undertaking, including these fittings, must not exceed £100.

Q693

ARCHITECTS, YORKSHIRE. — *The STEAM IN a SMALL KITCHEN of a works canteen is the source of a complaint. The steam comes from a "Jackson" (tea water) boiler and from a gas soup boiler. The kitchen is 12 ft by 12 ft. with serving counter on one side, and is 11½ ft. high, but the top of the opening window is only 7½ ft. high, and the steam has no means of escape and condenses on the painted walls and ceiling.*

It is proposed to instal a small electric fan with a duct to outside gable, but we are concerned as to the effect of the steam on the working of the fan; should it be coated with any special preparation to protect it from the steam?

Electric fans are made specially for this purpose, and there is no danger of the steam affecting the working of the fan. Any good makers will advise you on best type and size of fan if they are given the necessary particulars.

Q694

ARCHITECT, SURREY.—*I should be glad if you could recommend any RESURFACING TREATMENT FOR A WOOD BLOCK FACTORY FLOOR which has become saturated with oil and grease, and takes considerable hand trolley traffic. It was suggested that the floor be resurfaced by electric sanding machine, but I am informed by wood block contractors that owing to the floor being laid end grain, this is not a practical proposition.*

I would welcome any advice you can give, bearing in mind that it is desired to leave the present wood block intact.

We do not know of any cheap method of reconditioning the wood block floor, but we would point out that it is not necessarily impossible to resurface end-grain flooring by means of planing and sanding machines. If the flooring contractor who advised against this method has not actually seen the floor in question, it might be worth while approaching another firm.

If, as you suggest, you are unwilling to hack up the present flooring, you could have the flooring paved with asphalt. A number of asphalt contractors lay asphalt floors which will withstand hard wear in a factory, and which could be laid on the existing flooring after it has been tarred over or treated by the specialists concerned.

As an alternative you could hack up the flooring and lay a new cement paving in which has been incorporated a floor hardener which will render the paving hard-wearing and impervious to oil.

If you require the names of firms who lay asphalt paving or who manufacture hardeners for cement paving, the Centre will supply them.

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