

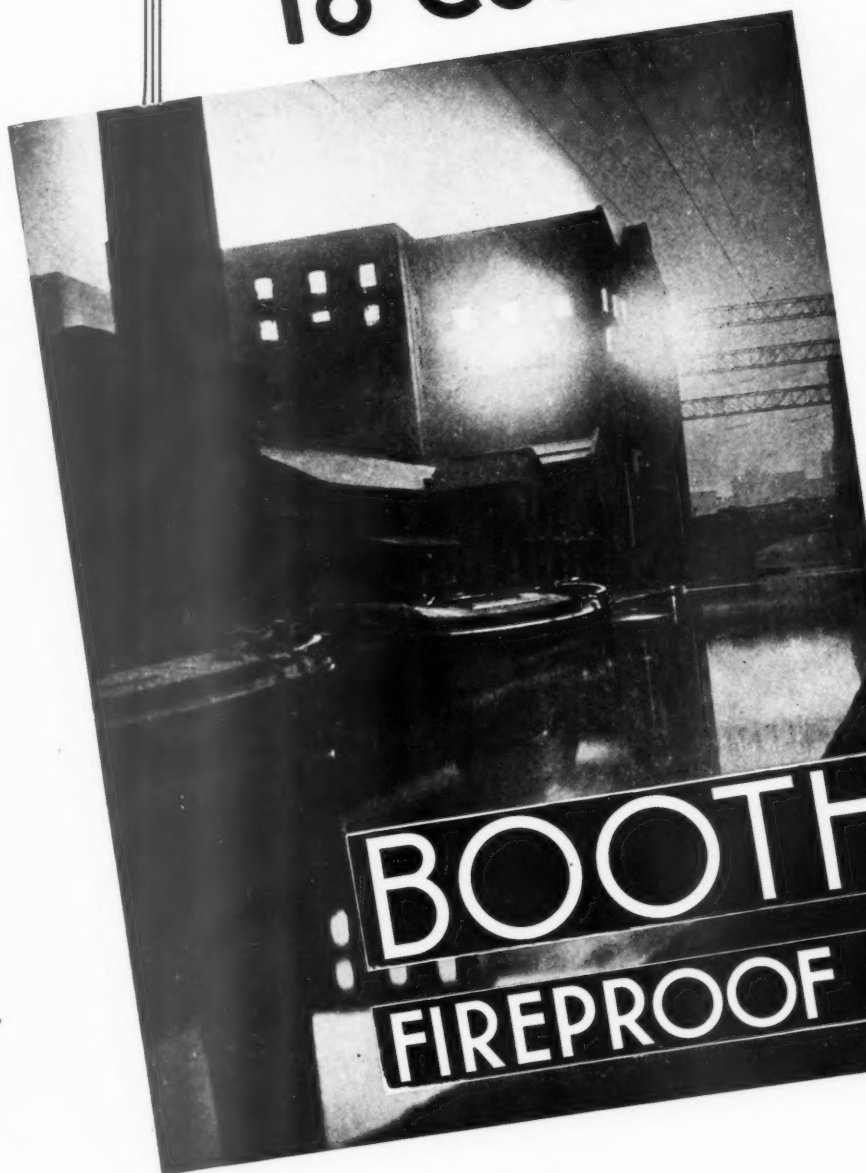
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The Editor will be glad to receive MS. articles
and also illustrations of current architecture in this
country and abroad with a view to publication.
Though every care will be taken, the Editor cannot
hold himself responsible for material sent him.

THURSDAY, SEPTEMBER 5, 1940.

NUMBER 2381: VOLUME 92

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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
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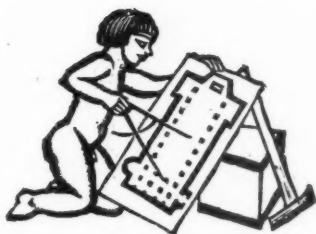
R.A.F. EXHIBITION

A general view of the main room at the Exhibition of R.A.F. War Photographs which is now being held at the Building Centre, New Bond Street, W. The exhibition will remain open until September 26.



C O P E N H A G E N

The spire of the Exchange, Copenhagen, designed by King Christian IV in the early-seventeenth century.



DAMAGED BUILDINGS

THE German air raids of the past two months have not caused any great amount of damage to buildings of military importance, but, in the aggregate, they have by now damaged a considerable number of other types of building. In consequence, the Government's compensation scheme for war damage has come into operation, and its principles and procedure will have to be mastered by many architects and surveyors—and by very many if, as must be expected, the total of unimportant but nevertheless damaged buildings continues to increase.

The situation can indeed be put more strongly. If the Government's scheme is to work fairly, the employment of skilled valuers for one part of the work and skilled architects and quantity surveyors for the other will be essential, for the application of the scheme involves a series of very delicate calculations.

As far as architects and surveyors are concerned, the scheme* applies to all buildings other than those owned by local authorities and public utility undertakings,† and is based on three principles.

1. *Payment of compensation will not be made until the end of the war, but the work of assessing the damage for which compensation will be claimed should be undertaken as soon as possible after the damage has occurred.*

The chief difficulty in executing the latter part of this decision lies in the fact that damage will take place at different times throughout the war and building costs (on which claims are based) may vary between one time and another. Yet it is essential that, as nearly as possible, all claims should be based on the same standard of building costs or market values. Thus, the second principle of the scheme is—

2. *All claims are to be based on the building costs or market values of property which were in force in March, 1939.*

It will be noticed that claims are to be based on the cost of repairs or on market values. These alternative bases arise from the third principle of the scheme, which recognizes that the cost of repair of certain buildings may greatly exceed the diminution of their market value which has been caused by war damage

(e.g. a large and hitherto neglected country house). This third principle runs:—

3. *Subject to the exception referred to above,‡ damage to immovable property should be assessed at:—*

(a) *The cost of reasonable reinstatement estimated by reference to the level of building costs prevailing in March, 1939, credit being taken for the old materials, OR*

(b) *The diminution in market value, i.e. the difference between the market value of the property in its condition immediately before the damage occurred and its market value in its damaged condition, the value in each case to be calculated on the basis of market values prevailing in March, 1939 . . . ; . . . WHICHEVER IS THE LESS.*

These principles make it clear that the work for which architects and surveyors will be needed in applying the scheme is the calculation of the cost of repairs on the basis of March 1939 prices. And for all buildings other than the most common and smallest types, their job will be far from easy.

The first procedure necessary under the scheme is the submission by the owner to the District Valuer of the completed form V.O.W.1,§ within thirty days of the damage taking place. On this form the owner must state his total claim for compensation. But it is obvious that the owner must be prepared to substantiate this claim with a priced schedule of the building work involved in "reasonable reinstatement."

The preparation of such a schedule will call, in many cases, for drawings of the building before and after damage, specification of shoring and demolition necessary before repair and the repairs themselves, and a list of materials which can be re-used. Finally, all prices must be calculated on the rates prevalent in March, 1939.

All architects, surveyors and valuers will realize that the carrying out of this work would be greatly simplified if, first, all owners of buildings in more dangerous areas would have up-to-date drawings of their premises prepared at once, and, secondly, a complete list of building prices for March, 1939, was available.

The first of the aids could be secured, at least in part, by another appeal to owners by the R.I.B.A. and Surveyors' Institution.

The JOURNAL provides the second in this issue.

* *War Damage to Property: Government Compensation Scheme: First and Final Reports.* H.M. Stationery Office. Price 2d. each.

† Land, fixed and movable plant, and furniture are also included, but assessment of damage in regard to these will normally be made by specialist valuers.

Claims for damage to buildings and plant owned by local authorities and public utilities (where damage would usually have to be repaired at once) are to be made to the Ministry of Health on a separate form.

‡ The exception is such buildings as hospitals, churches, etc., which have no market value in the ordinary meaning.

§ Obtainable from any Local Authority's Health Department.



The Architects' Journal

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NOTES & TOPICS

NEW WARFARE

THE nuisance air-raid over large cities at night is such an obvious psychological weapon that one's first wonder, after last week, is why it has not been used before. But no one is inclined to spend much time over that point: the discovery and general adoption of the best antidote are what really matter when nights are growing longer.

*

A great number of people, I am well aware, pay not the slightest attention to the famous burble-burble. I honour but cannot imitate them: on an upper floor, with windows open, I can come near sleep despite the burble, but one salvo of pt-zungs from the A.A. give me just that lively interest in future developments at which Hitler is doubtless aiming.

*

This is a matter of great importance. One cannot cater for the unduly nervous. We know that the military damage achieved by nuisance raids is negligible and that when a bomb actually falls in large towns all units of A.R.P. are on the spot in no time. What remains is to prevent normal people becoming jumpy through lack of sleep: and this requires that they should be able to sleep in their shelters or other protected spaces.

*

There is, of course, a necessary corollary to a sleeping shelter—that you should be able to reach it. It is plainly impossible for shelters near places of public resort to be equipped for sleeping, and therefore it would seem that once a raid has been identified as a nuisance raid, transport should be kept running and people allowed to go home—if necessary in small parties.

*

The real problem arises when they get home. Some external shelters can be easily adapted for sleeping, others

are only large enough to provide sitting space for those who use them: and during long and cold nights this may prove a disadvantage which outweighs the greater safety of an external shelter compared with a protected space indoors.

*

People living in houses of two floors or more, who are unable to alter an external shelter so that it will provide reasonably comfortable sleeping accommodation, would do well to bear in mind the A.R.P. merits of a staircase. I am told by a man who has examined very many damaged houses that the staircase and its adjoining walls have a great power of resistance against collapse—much greater than the cautious wording of official publications imply—and in some cases were sole survivors among the debris.

*

A cupboard under the stairs seems easy to remove; and to replace when its floor area is no longer needed for mattresses.

TOWN-PLANNING AND FACT-FINDING

I have been reading concurrently the Mass-Observation book, "War Begins At Home," and Thomas Sharp's Pelican "Town-Planning." This has revived a hope of a possible public marriage between the activities represented by the two books.

*

Methods of scientific sampling developed by "consumer-research" and institutes of opinion are helping sociology through sociography towards a true science of socionomy. Sociography has at present two currents: the *social survey* with strictly limited scope, giving results of considerable accuracy and obvious application, and *mass-observation*, dealing with much wider, more complex material, dependent, for analysis and the production of results that can be applied, on the accumulation and ordering of a great deal of rather elusive material.

*

The quick and accurate results of the social survey are due to the fact that it deals with wholly objective items already reduced to a common denominator. Its main subject is the family budget. The subjects of mass-observation are mostly at the other end of the scale—subjective attitudes, or activities whose subjective explanation is of dominant importance.

*

Somewhere in the middle field, and scarcely touched by either group of enquiries, lies the region in which we are interested—the homes, work- and play-places and their equipment with which people live, their attitudes to them and their desires and dreams about them. The time should have gone by when we have to say "such and such groups will probably prefer flats," "a certain proportion want a vegetable garden," and similar speculative vaguenesses. The matter in this region of the field, though less simple than the family budget, is sufficiently objective to allow comparatively easy reduction to valid common measures, and a comparatively rapid return of results indicating practical action. But, while architects should play a part in instituting such an enquiry and, if otherwise unemployed, in helping to conduct it, let them not suggest that they can carry it out by themselves. Sociographers are specialists.

INDUSTRIAL HOUSING COMPETITION

As this JOURNAL was going to press last week, flat flimsy packages were piling up in the blast-protected lobby of the R.I.B.A. The war and peace Industrial Housing Competition organized by the R.I.B.A. seemed to have met with a big response.

★

The spare-time facilities, or, rather, the spare place-to-work facilities, of many architects, particularly those in Civil Defence, cannot have been perfect. But possibly the promise in the conditions that pencil drawings or prints would be accepted, may have encouraged them to make the attempt—and they must have been working at the last stages of this highly topical problem in highly topical circumstances.

★

I heard of one competitor who spent the greater part of the last day, when the warnings were on, working away in his tin hat, colouring up his prints on a board strategically placed outside a suburban cottage within diving distance of his Anderson . . . And of another who spent the first 3 hours of the 6-hour night-warning writing his report in the shelter, and the second 3 hours rapping it out on his typewriter to the base accompaniment of periodic crumps and frequent bangs.

★

The exhibition of competition drawings, which I hope the R.I.B.A. will hold through thick and thin, should be a big draw. The aim of the competition committee is "to encourage beforehand the adoption of sound principles which may well prove a contribution in the art of good house design and town and country planning."

★

It will be interesting to see if the successful competitors produce some new way of providing domestic shelter without using any of the common materials, and whether they succeed in making some permanent contribution to small-house building technique.

★

It is in the site-planning section of the competition that new suggestions are specially to be hoped for. Although camouflage must influence the planning (I hope it won't be forgotten that wobbly curves are not always the least obvious forms in the rural pattern) there is room for new ideas, diverging sharply from the far-too-long-accepted variations on Welwyn Garden City aesthetics.

TRACINGS FOR WAR SERVICE

There has been a large response to the Building Centre's appeal to architects and engineers for old linen tracings: the results of the appeal are indeed being measured in tons.

★

As a reward and inspiration, samples of the linen after it has been transformed for war service are now on view at the Building Centre. They include surgeons' caps and aprons, and other similar necessities. I reproduce a photograph of them.

★

The appeal is still open. Parcels should be sent to F. R. Yerbury, Esq., at The Building Centre, 158 New Bond Street, W.1, (marked "Old Linen")—where a clearing depot has been set up for the whole country.



ANOTHER STEP BACKWARDS

Modern architects have had a good deal to put up with in this war. The faith that produced their works expected too much of contemporary humanity. Its smaller tenets—sunshine, fresh air and efficiency of structure in all buildings—depended for their validity on human beings remaining reasonable in their behaviour. Their works were built for peace.

★

That some clients did not enjoy the wartime process of realizing this fact was only to be expected. It was just a tiny part of the general vexation at finding the ideal house had suddenly become that which had a room or rooms with thick walls and no windows—or better still, an underground room. It was unavoidable.

★

But one or two wartime discoveries seem to have been made for the one purpose of humiliating not only the modern architect but architects of any sensibility whatever. Take, for instance, leaded glazing—concerning which the distasteful truth is slowly being made public.

★

There can hardly be an architect in practice who has not edged a client away from the trite sentimentality of diamond paned lead casements. They belonged to the lowest grade of the pseudo antique.

★

Now it seems to have been proved beyond question that these hangovers from the dawn of glass-making have a resistance to flying in splintered fragments of the highest order. It will take years of peace for architecture to recover from this blow.

ASTRAGAL

INFORMATION CENTRE

The publication this week of the full list of March, 1939, prices for materials and measured work, which will be needed for preparing claims for war damage to buildings, has made it necessary to omit from this issue the Questions and Answers of the Information Centre.

These will appear as usual next week.

NEWS

ARCHITECT AWARDED M.C.

Lt. Richard R. Fairbairn, A.R.I.B.A., R.E., has been awarded the M.C. The current issue of the *A.A. Journal* states:—

On May 18, Lt. Fairbairn was ordered to demolish the bridges on the road and railway leading south-west from Peronne. Under his orders two road bridges were prepared and demolished in face of enemy fire: in one case the charge had to be relayed under fire and a successful demolition resulted. The preparation for demolition of the railway bridge was completed under fire and the charge failed to fire. Lt. Fairbairn went on the bridge and fired the charge from close quarters. He was blown into the river. He then rallied his section, and withdrew them under machine-gun attacks by low-flying aircraft with few casualties. It was due to the coolness, ingenuity, and complete disregard for personal safety of this officer that his task was fulfilled and his section was extricated from a precarious situation.

MARS GROUP

A meeting of the MARS Group is to be held today, at 8 p.m., at 24 Essex Street, W.C.2, to receive a report on the work carried out by a group of students from the Architectural Association on "Agricultural and Rural Planning," with special regard to the district round Wantage, and further to consider the true applications of Rural Planning. Captain E. Maxwell Fry will preside.

A.A.S.T.A.

Following notice has been issued by the A.A.S.T.A.

The Association of Architects, Surveyors and Technical Assistants, has given notice that its Representative wishes to give evidence before the Public Inquiry of the Charges (Railway Control) Consultative Committee. This Committee is investigating the request of the

Railway Executive Committee to increase rail charges and the terms of reference of the Committee are, (1) to investigate the estimates of the railways submitted, and (2) to make inquiries into the best methods of adjusting the increased charges. The inquiry does not extend to the question as to whether or not an increase in charges should be made. The hearing, which commenced on Monday, August 26, was adjourned until Monday, September 2, in order to give the opposition time in which to collect evidence. The A.A.S.T.A. wishes to show by figures the already heavy burden imposed on professional workers by the last 10 per cent. increase, as evidence that the additional 7½ per cent. increase, if imposed at all, should not fall on the travelling public.

AN ARCHITECT'S WILL

Mr. Peter Peirce, J.P., L.R.I.B.A., of Woodford, Cheshire, left £26,826 (net personalty, £14,079).

R.I.B.A. COMPETITION RESULT

Yesterday, the assessors (Messrs. K. Cross, R. Fitzmaurice, J. H. Forshaw and G. A. Jellicoe) of the R. I. B. A. Industrial Housing Competition made their awards as follows:

For the House

First Prize £250 to

No. 107 Miss J. G. Ledeboer, A.R.I.B.A., and Mr. George Fairweather, A.R.I.B.A., 55 Russell Square, London, W.C.1.

£125 to

No. 40 Mr. R. A. Horsman, A.R.I.B.A., 36 Glenhill Close, Finchley, London, N.3.

£25 to

No. 24 Messrs. T. Forbes MacLennan and Partners, F/A.A.R.I.B.A., 57 Melville Street, Edinburgh, 3.

£25 to

No. 52 (A) Messrs. L. A. Clarke, D. E. E. Gibson, J. T. Mallorie, P. J. Marshall, F. B. Reyner, L. Whitaker, A.A.R.I.B.A., 189 Birmingham Road, Coventry.

£25 to

No. 112 Mr. Frederick Gibberd, F.R.I.B.A., 11 Clareville Court, Clareville Grove, London, S.W.7.

£10 to

No. 74 Mr. Rodney Thomas, A.R.I.B.A., 24 Plimsoll Road, Finsbury Park, London, N.4.

£10 to

No. 79 Mr. C. M. Bond, A.R.I.B.A., Mrs. A. Lee, A.R.I.B.A., and Mr. L. Enevoldson, Student R.I.B.A., 3 The Grove, Bexleyheath, Kent.

£10 to

No. 98 Mr. B. H. Dowland, Student R.I.B.A., Flat 3, West End House, Bowness-on-Windermere, Westmorland.

£10 to

No. 105 Mr. Cyril Sjostrom, A.R.I.B.A., 48 Tavistock Square, London, W.C.1.

£10 to

No. 111 Mr. R. G. Brocklehurst, F.R.I.B.A., Crendon Street, High Wycombe.

£10 to

No. 139 Messrs. A. Llewellyn Smith, A.R.I.B.A., A. B. Waters, A.R.I.B.A., and L. C. Moulin, Student R.I.B.A., 17 Bedford Square, London, W.C.1.

£10 to

No. 151 Messrs. A. W. Soden and P. Cornu, A.A.R.I.B.A., 38 Froggnal Court, Finchley Road, London, N.W.3.

For the Estate Plan

First Prize £100 to

No. 135 Messrs. G. Grenfell Baines, John A. Ashworth, Stanley E. Catterall and Tom Mellor, A.A.R.I.B.A., 12-18 Guildhall Street, Preston.

£50 to

No. 133 Messrs. Halliday and Agate, F/A.R.I.B.A., 14 John Dalton Street, Manchester, 2.

£20 to

No. 44 Mr. Ewart B. Redfern, A.R.I.B.A., 2 Carlton Villa, Grosvenor Road, Newcastle, Staffs.

£10 to

No. 26 Miss Stella M. Scott, A.R.I.B.A., 27 Lynton Road, Peterborough.

£10 to

No. 79 Mr. C. M. Bond, A.R.I.B.A., Mrs. A. Lee, A.R.I.B.A., and Mr. L. Enevoldson, Student R.I.B.A., 3 The Grove, Bexleyheath, Kent.

£10 to

No. 108 Messrs. Horace Farquharson, F.R.I.B.A., and Donald H. McMorran, A.R.I.B.A., 14 North Audley Street, London, W.1.

Special Prizes for Complete Set of Drawings

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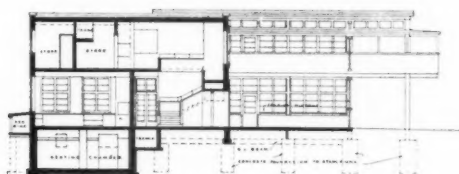
No. 13 Mr. Frank T. Winter, F.R.I.B.A., 56 Litchfield Way, London, N.W.11.

£10 to

No. 51 Mr. Edward Banks (Member of the South-Eastern Society of Architects), 25 Grove Wood Hill, Coulsdon, Surrey.

£10 to

No. 88 Mr. H. F. Hoar, A.R.I.B.A., with Mr. W. R. Pertwee, F.I.L.A., 20 Embankment Gardens, Chelsea, London, S.W.3.



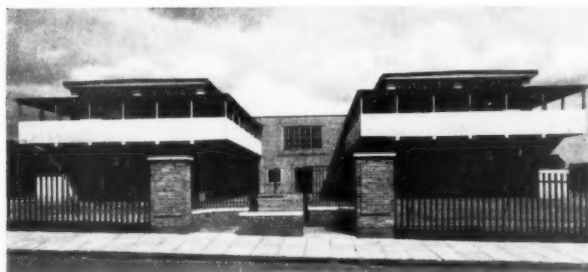
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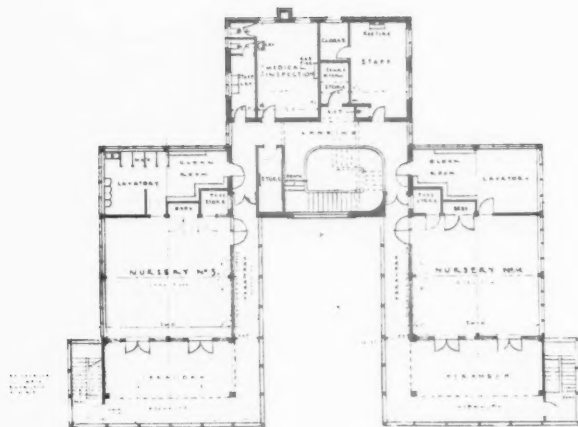
NURSERY SCHOOL BIRMINGHAM BY W. T. BENSLYN

GENERAL—Nursery school on a relatively small site in Brearley Street, Birmingham, for a total, when complete, of 240 children. The scheme is the first of its kind in the city.

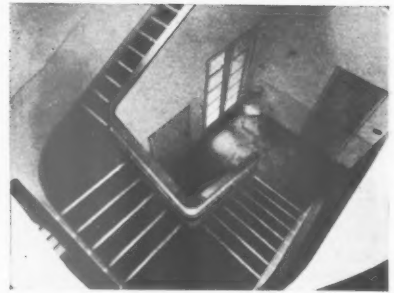
CONSTRUCTION AND EXTERNAL FINISHES—Steel framed, with 11-in. brick cavity walls externally and 4½-in. brick partition walls. Suspended floors are in reinforced concrete; also balustrade to first floor verandas. Timber roofs are covered with layers of bituminous roofing felt on boarding. External walls are 2½-in. golden-brown Bidford facing bricks. R.C. balustrade to verandas; external staircases are finished with cement rendering. Windows, wood casements, pivot and hopper hung.

Right, view from Brearley Road; below another view of the main front showing the verandas.

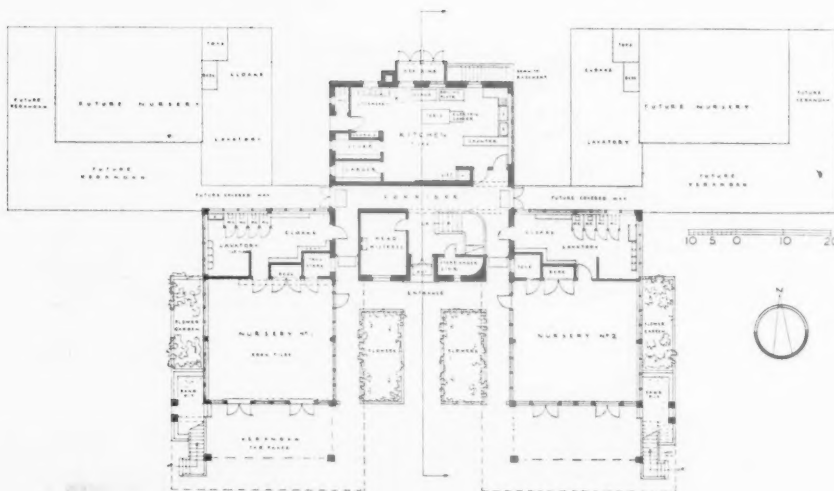




FIRST FLOOR PLAN



Above, main staircase, and one of the nurseries

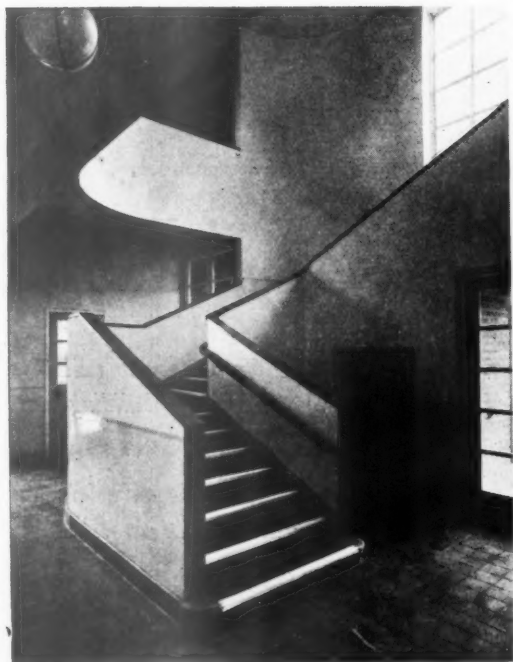


GROUND FLOOR PLAN

PLAN—Nursery units for 40 children have been provided and each unit contains cloaks, lavatory and w.c.s approached directly from the nursery, in addition to the approach through the cloaks. Owing to the restricted site it was felt advisable to place two of the nurseries as well as certain staff accommodation on the upper floor. The portion at present completed, therefore, consists of two nurseries on the ground and two on the upper floor. Eventually two additional nurseries will be placed on the ground floor. By

this plan it is possible to give a south aspect to all the verandas both present and future. The kitchen is arranged in a central position to minimize the distance from each nursery. In order to obtain ample veranda space on the upper floors and yet not obstruct the lower, a reinforced concrete balcony veranda has been cantilevered over the lower gangways. This is kept low in height so that clerestory lighting can be obtained not only for the nursery but to that portion of the veranda which is surrounded by the balcony construction.

N U R S E R Y S C H O O L , B I R M I N G H A M



INTERNAL FINISHES—Ground floor : Cork tiles to floors of nurseries. Heather brown quarry tiles to floors of lavatories, kitchen and corridors. Wood blocks to head mistress's room. First floor : Green linoleum to nurseries, administrative rooms, landings and staircase as before. Open verandas paved with red asphalt. Ceilings to nurseries and lavatories are panelled in proprietary "V"-jointed boards, and first floor veranda soffits covered with T. & G. "V"-jointed deal boarding painted cream, remainder of ceilings plastered. Walls generally are plastered. Concrete balustrade to main entrance staircase and landing is finished with cement and cream enamelled, and has a teak capping. All doors are flush panelled, and are painted sunshine yellow. Walls of nursery units are painted light cream, with yellow dadoes and fittings in lavatories and cloaks.

SERVICES—Meals are served from the kitchen to each nursery, and a hand-power lift is provided to serve the first floor nurseries. Heating is by low pressure hot water. A domestic boiler supplies hot water to all sinks and lavatory basins. Heating pipes are concealed where possible in ducts beneath floors. Gas fires are provided in staff and medical rooms, with outlets into special flues discharging over flat roof.

General contractors were Maddocks and Walford ; for list of sub-contractors and suppliers see page xx.



Nursery and, above, main staircase

D E S I G N E D B Y W . . T . B E N S L Y N

MARCH 1939 PRICES FOR WAR DAMAGE CLAIMS

*Under the Government's Compensation Scheme for War Damage to Property, claims for damage to buildings are to be assessed on the cost of reasonable reinstatement estimated by reference to the level of building costs prevailing in March 1939, credit being taken for old materials.**

In 1939 the JOURNAL published every month the most comprehensive list of building prices contained in any journal, and on the following pages it reprints the Current Prices of Materials and Measured Rates for March, 1939.

All architects and surveyors who are now preparing compensation claims or may do so in the future should keep this list carefully.

PROCEDURE IN CLAIMING COMPENSATION

By F. W. HANN

AFTER the announcement in January, 1939, of a Government Compensation Scheme for war damage to property, a committee including architects and surveyors, under the chairmanship of Mr. Justice Simonds, was appointed to advise on the general principles upon which the Compensation Board should make their assessments.

The principles upon which the Board were instructed to make their assessments are those recommended in the First and Final Reports of the Committee on the Principles of Assessment of Damage (Cmd. 6136 and 6197), and from these reports it is seen that the property covered by the Government's Scheme falls into two main categories, namely :—

- (1) Immovable property, e.g. land and buildings (including buildings in course of construction), plant and machinery which are deemed to be part of a hereditament for the purpose of rating, etc.
- (2) Movable property, e.g. furniture, loose plant (including tools and equipment) and machinery, etc.

It is with the former category that the architect and surveyor will be principally concerned.

The Committee's recommendations as to assessment may be summarized briefly as follows :—

- (a) The cost of reasonable reinstatement estimated by reference to the level of building costs prevailing in March, 1939, credit being taken for the old materials, and including professional fees properly incurred, or
- (b) The diminution in market value, i.e. the difference between the market value of the property in its condition immediately before the damage occurred and its market value in its damaged condition, the value in each case to be calculated on the basis of the market value prevailing in March, 1939, assuming the property to be freehold in possession and free from incumbrances and from any burden, charge or restriction other than rates or taxes, whichever is the less.

The procedure to be followed in making a claim in connection with the Scheme is as laid down in Form V.O.W.1, which is obtainable from all local authorities. This form provides for the claimant to give :—

- (1) A full description of the property, e.g. whether freehold or leasehold, details of underleases, liability for repairs, mortgages, restrictions, etc. (If the property was purchased after September 3, 1939, the purchase price is to be stated.)
- (2) A statement of the nature and extent of the damage or loss suffered and the amount claimed in respect of each property involved in the claim.

The claim has to be delivered to the local office of the District Valuer, Inland Revenue, within 30 days of the occurrence of the damage, unless circumstances beyond the claimant's control make this impossible.

After the receipt of such a claim the usual practice is for the owner's surveyor to meet the District Valuer's representative at the site and endeavour to agree the cost of damage in the light of prices ruling at March, 1939.

In many cases it will be possible for such agreement to be reached without the necessity of preparing bills of quantities, plans and blue prints, (e.g. in dealing with one of a row of identical villas or other buildings of simple and obvious construction), especially as District Valuers have at their disposal the services of a panel of architects and surveyors who have the necessary qualifications and are familiar with local conditions, costs of labour and materials. But in dealing with buildings of special construction it will not be possible for valuers to agree a spot price, and in these cases plans and bills of quantities will have to be prepared.

If the occasion demands there would appear to be no objection to the appointment of an arbitrator.

In exceptional circumstances an advance for immediate relief may be made to claimants in accordance with the provisions of the Housing (Emergency Powers) Act, 1939,

* The alternative basis of assessment, which does not closely concern the building professions, is described in this week's leading article.

or for the purpose of carrying out essential repairs under the Essential Buildings and Repairs (War Damage) Act, 1939. The general intention of the Government, however, in regard to the payment of claims was stated by the Chancellor of the Exchequer in reply to a question in the House of Commons on June 6 of this year, when he said: "the Government's scheme of compensation . . . provided for payment of compensation after the war in accordance

with the scale, which would depend on the total amount of the damage and the financial circumstances of the country."

It need hardly be stated that professional men and their clients will help both themselves and the authorities concerned if they arrange for a proper set of plans and a surveyor's report on the condition of properties under their control to be prepared now, so that claims can be handled with the minimum delay in an emergency.

PRICES AND WAR CLAIMS: A CAUTION

The following prices are a copy of those published in the JOURNAL at the beginning of April, 1939, and may be considered to be current prices for March of that year. It should be stressed, however, that prices of materials are for the average quantities normally ordered for use on new building works and that prices for Measured Work are for jobs of an average size.

The cost of small jobs and difficult reconstruction work, etc., will be proportionately higher, as many other factors have to be taken into account. Materials cost more if bought in small quantities, and labour costs for reconstruction work will be greater than for similar work carried out under the normal conditions of a new job.

Apart from these obvious factors the contractor requires a higher percentage for overhead charges and profit on small jobs than on large ones. As an example, for "jobbing work"—that is, very small jobs—30 per cent. on labour costs and 15 per cent. on the cost of materials is allowable for overhead charges and profit, according to the National Schedule of Daywork Charges, whereas only 10 per cent. has been allowed on both labour and materials in the following prices.

F. Davis.

F.S.I.

MARKET PRICES OF MATERIALS FOR MARCH 1939

BY DAVIS AND BELFIELD, Chartered Quantity Surveyors

Prices vary according to quality and the quantity ordered.

Those given below are average market prices and include delivery in the London area, except where otherwise stated, but do not include overhead charges and profit.

CONCRETOR

Cements

All delivered in paper bags (20 to the ton) free and non-returnable.

			4 Tons and over	In 80-ton freights F.A.S. Safe Wharf in River Thames, London Area.
Portland	per ton	42/-		39/6
Rapid hardening	per ton	48/-		45/6
Water repellent	per ton	72/-		—
Atlas White (1 barrel 376 lbs.)	per barrel	44/-		1 ton upwards
Colorcrete rapid hardening, Nos. 1 and 2	per ton	69/-		
Colorcrete non rapid hardening	per ton	139/- to 309/-		
Snowcrete	per ton	175/-		
Ciment Fondu, delivered Central	1-10	11-15	16-20	1 ton and upwards
London area	per cwt.	7/9	7/3	6/-

Aggregate and Sands (Full Loads)

2" Unscreened ballast	per yard cube	5/9
1" (Down) Washed, crushed and graded	per yard cube	6/-
shingle	per yard cube	7/3
3" (Down) Ditto	per yard cube	10/6
2" Broken brick	per yard cube	11/9
3" Ditto	per yard cube	5/3
Washed pan breeze	per yard cube	12/6
Coke breeze 1" to dust	per yard cube	8/-
1" Sharp washed sand	per yard cube	25/-
White Silver Sand for white cement (one ton lots)	per ton	25/-

(For Sands for Bricklaying and Plastering see respective trades)

Pavings

Brick hardcore	per yard cube	2/9
Concrete ditto	per yard cube	3/9
Clean furnace clinker and boiler ashes	per yard cube	3/3
Coarse gravel for paths	per yard cube	6/9
Fine ditto	per yard cube	9/6
Clean granite chippings	per ton	18/6
Red quarry tiles, 6" x 6" x 1 1/2"	per yard super	6/-

Red quarry tiles, 6" x 6" x 1 1/2"	per yard super	5/-
Buff ditto, 6" x 6" x 1 1/2"	per yard super	6/6
Ditto 6" x 6" x 1 1/2"	per yard super	5/6
Hard red paving bricks	per 1,000	150/-

Reinforcement

Basis price for mild steel rods, 3/8" diameter and upwards, from London stocks per ton £13 0 0

Extras for:—

1/2" and 3/4" diameter	per ton	10/-
1/2" diameter	per ton	15/-
3/4" diameter	per ton	20/-
1" diameter	per ton	30/-
1 1/4" diameter	per ton	40/-
1 1/2" diameter	per ton	60/-
Lengths of 40 ft. to 45 ft.	per ton	10/-
Lengths of 45 ft. to 50 ft.	per ton	15/-

Sundries

Retarding liquid, in 5-gallon drums (for exposing aggregate)	per gallon	20/-	Ex Warehouse, Southwark Bridge. Drums chargeable and credited, if returned.
Ditto (for obtaining a bond)	per gallon	12/6	

BRICKLAYER

Common Bricks

Rough stocks	per 1,000	67/6
Third stocks	per 1,000	52/6
Mild stocks	per 1,000	69/6
Sand limes	per 1,000	50/-
*Phorpres pressed Flettons	per 1,000	46/3
*Phorpres keyed Flettons	per 1,000	48/3
Blue Staffordshire wirecuts	per 1,000	160/-
Lingfield engineering wirecuts	per 1,000	95/-
Breeze fixing bricks	per 1,000	57/6
Firebricks, best Stourbridge 2 1/4"	per 1,000	155/-
Firebricks, best Stourbridge 3"	per 1,000	190/-

* At King's Cross. For delivery in W.C. district add 4/3 per 1,000.

Facing and Engineering Bricks

Sand Limes, No. 1	per 1,000	85/-
Sand Limes, No. 2	per 1,000	70/-
† Phorpres rustic Flettons	per 1,000	66/3

† At King's Cross. For delivery in W.C. district add 4/3 per 1,000. Discount if accompanied by order for pressed 2/- per 1,000.

Midhurst Whites	per 1,000	75/-
Hard stocks, firsts	per 1,000	93/-
Hard stocks, seconds	per 1,000	86/-
Sand-faced, hand-made reds	per 1,000 from	115/-
Sand-faced, machine-made reds	per 1,000 from	110/-
Red rubbers (9½-in.)	per 1,000	300/-
Hunziker (white)	per 1,000	67/6
Hunziker (creams, light greys, etc.)	per 1,000 from 85/- to 100/-	
Dunbricks (concrete), multi reds, ex works	per 1,000	72/-
Dunbricks (concrete), multi lavender, ex works	per 1,000	75/-
Southwater engineering No. 1 (first quality red pressed)	per 1,000	145/-
Southwater engineering No. 2 (second quality red pressed)	per 1,000	125/-
Blue pressed	per 1,000	180/-

White, Salt and Coloured Glazed Bricks (9" × 4½" × 2½")

The following prices are subject to 2½ per cent. trade discount and 2½ per cent. cash discount, and include delivery to any railway station (minimum 4-ton loads). Add 10/- per 1,000 for delivery in London area.

Prices per 1,000	White, Ivory and Salt Glazed		Buff, Cream and Bronze		Other Colours		All Colours	
	Best		Best		Best		Best	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Stretcher, glazed one side	24 0	0 22 0	0 26 0	0 29 10	0 23 0	0 0		
Header, glazed one end	23 10	0 21 10	0 25 10	0 29 0	0 22 10	0 0		
Double stretcher, glazed two sides	32 10	0 30 10	0 34 10	0 38 0	0 31 10	0 0		
Double header, glazed two ends	29 10	0 27 10	0 31 10	0 35 0	0 28 10	0 0		
Quoin, glazed one side and one end	30 10	0 28 10	0 32 10	0 36 0	0 29 10	0 0		

Limes and Sand

	1-ton lots	6-ton lots
Lime, greystone	per ton 42/-	37/6
Lime, chalk	per ton 42/-	37/6
Lime, blue Lias (including paper bags)	per ton 47/6	42/6
Lime, hydrated (including paper bags)	per ton 47/-	42/6
Washed pit sand	per yard cube	7/6

(For cements, see "Concretor.")

Hire of jute sacks charged at 1/6 and credited at 1/6. If left, charged at 1/9.

Sundries

Wall ties, self coloured	per cwt.	19/-
Wall ties, galvanized	per cwt.	24/6
Hoop iron, black	per cwt.	25/-
D.P.C. slates, size 18" × 9"	per 1,000	150/-
D.P.C. slates, size 14" × 9"	per 1,000	117/6
D.P.C. slates, size 14" × 4½"	per 1,000	59/-
*Ledkore D.P.C. Grade A	per foot super	5d.
*Ledkore D.P.C. Grade B	per foot super	6½d.
*Ledkore D.P.C. Grade C	per foot super	8d.

* Trade discount 5 per cent. and cash discount 5 per cent. Prices include delivery on minimum of £4 orders.

	9" × 3"	9" × 6"	9" × 9"	12" × 9"	14" × 9"
Earthenware airbricks: red, blue, vitrified and buff terra cotta each	-/8	1/4	2/4	4/-	6/8
Black cast iron, School Board pattern airbricks per doz.	3/-	5/6	11/-	11/-	20/-
Galvanized ditto per doz.	5/6	11/-	22/-	22/-	40/-
Black hit and miss cast iron ventilators per doz.	12/-	15/-	21/-	21/-	36/-
Galvanized ditto per doz.	24/-	30/-	42/-	42/-	72/-
Buff terra cotta chimney pots	2/6	3/-	4/4	5/9	13/4
Fireclay	per ton 45/-				22/6

Wall reinforcement supplied in standard rolls containing 25 yards lin. 2" wide black japanned per roll 2/1 } Greater widths pro rata 2½" 3" wide galvanized .. per roll 3/2 } price carriage paid on 2½" wide black japanned per roll 2/7½ } orders of £5. Discounts 2½" wide galvanized .. per roll 3/10½ } for quantities.

Partitions

	2"	2½"	3"	4"
Breeze .. per yard super	1/3½	1/5½	1/8	2/3
Clay tiles .. per yard super	2/3	2/6	2/9	3/1
Pumice .. per yard super	3/8	3/-	3/6	4/-
Plaster .. per yard super	2/3	2/9	3/3	4/-

Sheepwood Partition Bricks size 9" × 2½" and 2½" on bed. Terms, as for Glazed Bricks

Prices per 1,000 except where stated per brick	White, Ivory and Salt Glazed		Buff, Cream and Bronze		Other Colours		All Colours	
	Best		Best		Best		Best	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Double stretcher, glazed two sides	32 10	0 30 10	0 34 10	0 38 0	0 31 10	0 0		
Single stretcher, glazed one side	24 0	0 22 0	0 26 0	0 29 10	0 23 0	0 0		
	Each	Each	Each	Each	Each	Each		
Round end glazed two sides and one end	-/10½	-/10	1/0½	1/0½	-/10½			

Gas Flue Blocks

	Single Flues	Double Flues
Straight blocks	each 1/1	1/11
Building in set	per set of 3 2/8	4/10
Cover blocks	each 1/5	3/-
Raking blocks 45°	each 2/9	3/11
Raking blocks 60°	each 1/11	2/10
Offset blocks	each 3/4	4/10
Closer blocks	each 1/1	1/11
Closer flashing blocks	each 1/-	1/8
Straight flashing blocks	each 1/-	1/8
Terminal and cap	per set 6/9	11/6
Middle terminal and cap	per set 6/3	10/9
End terminal and cap	per set 6/6	11/3
Corbel block	each 4/10	3/2
Gathering block	each —	9/8

DRAINLAYER

Agricultural Pipes

Pipes in 12" lengths	per 1,000	67/6	92/6	120/-	210/-
(Delivered in full loads Central London Area.)					

Salt Glazed Stoneware Pipes and Fittings

	4"	6"	9"
Pipes (2' lengths)	each 1/8	2/6	4/6
Bends, ordinary	each 2/6	3/9	6/9
Single Junction, 2' long	each 3/4	5/-	9/-
Yard Gully, without grating	each 6/3	6/10½	11/8
Ordinary round or square Grating, painted	each -/7½	1/3	2/6
Ordinary round or square Grating, galvanized	each 1/0½	2/1	4/4½
Extra for Inlets, horizontal	each 1/6	1/6	1/6
Extra for Inlets, vertical	each 2/3	2/3	2/3
Intercepting Trap with Stanford Stopper	each 17/6	22/6	37/6
Grease and mud interceptor with bucket for removing silt and grease for 6", 9" and 12" drains, with iron grating, painted	each 20/-		
Ditto, with iron grating galvanized	each 21/10½		

The above prices to be varied by the following percentages for the different qualities given. All subject to 2½ per cent. cash discount.

	British Standard	British Standard Tested
Orders for 2 tons and over	Less 20%	Plus 5%
Orders under 2 tons, 100 pieces upwards	Less 2½%	Plus 22½%
Orders under 2 tons, less than 100 pieces	Plus 7½%	Plus 32½%
	Best	Seconds
Orders for 2 tons and over	Less 27½%	Subject to 15%
Orders under 2 tons, 100 pieces upwards	Less 10%	off the price of
Orders under 2 tons, less than 100 pieces	Nett	best quality for all sizes

Cast Iron Drain Pipes and Fittings

Socket and Spigot Pipes:—		9 fts.	6 fts.	4 fts.	3 fts.
Weight (per 9 ft.)	Size				
1.1.8	4" per yard	6/2	6/11	11/-	8/4
1.1.20	4" per yard	6/5	7/1	11/3	8/7
2.0.6	6" per yard	9/6	11/4	18/3	14/7
4.0.2	9" per yard	17/3	22/7	39/2	29/10
Socket and Spigot Pipes:—		2 fts.	18 ins.	12 ins.	9 ins.
Weight (per 9 ft.)	Size				
1.1.8	4" each	6/11	6/2	5/5	4/11
1.1.20	4" each	7/-	—	—	—
2.0.6	6" each	10/11	—	—	—
4.0.2	9" each	—	—	—	—

Tonnage Allowances:—
 Orders up to 2 tons nett.
 Orders 2 to 4 tons less 2½%
 Orders 4 tons or over less 5%

	4"	6"	9"
Bends	each 6/1½	12/7	39/10
Single junctions	each 10/9	22/-	69/6
Intercepting traps	each 36/9	47/2	134/6
Gulleys ordinary trapped	each 14/8	—	—
Extra for inlet 4"	each 4/-	—	—
Grease Gully trap	each 115/2	—	—
H.M.C.W. large socket gully trap with 9" gully top and heavy grating and one back inlet	each 23/3	42/-	—

Cast Iron Inspection Chambers

The larger figures below refer to the main pipes and the smaller figures to the branches

	4"×4"	6"×4"	6"×6"	9"×6"	9"×9"
Straight chambers with one branch one side	36/9	47/2	52/8	110/3	124/11
Straight chambers with two branches one side	55/1½	65/6	77/2	150/8	194/4
Straight chambers with three branches in all	64/11	75/4	89/5	162/11	—
Straight chambers with four branches in all	74/9	85/2	101/8	175/2	—
Straight chambers with three branches one side	69/10	87/-	99/3	—	—
Straight chambers with four branches in all	79/7½	96/9	111/6	—	—
Straight chambers with five branches in all	89/5	106/7	123/9	—	—
Straight chambers with six branches in all	99/3	116/4½	136/-	—	—
Straight chambers with four branches one side	91/10½	109/-	131/4	—	—
Straight chambers with five branches in all	101/8	118/10	143/4	—	—
Straight chambers with six branches in all	111/6	128/7½	155/7	—	—
Straight chambers with seven branches in all	121/3	138/5	167/10	—	—
Straight chambers with eight branches in all	131/9	148/3	180/1	—	—
The branches to the above are at 135°					
Extra for branches between 135° and 180°	each 7/4	6"	7/4	—	—
Extra for branches between 90° and 135°	each 6/1½	6/1½	—	—	—
other than standard angles					

Curved chambers, no branch 90°-112½°	each 26/4	—	37/4	—	—
Curved chambers, no branch 135°	each 26/4	—	37/4	—	—
Curved chambers, one branch 135°	each 33/1	47/9	53/11	—	—
Curved chambers, two branches 135°	each 39/10	64/4	74/9	—	—

Channels in White Glazed Ware (Unselected Quality)

	4"	6"	9"
Half round straight channels, 6" long	each 2/4	3/2	5/3
Half round straight channels, 12" long	each 3/8	4/5	6/11
Half round straight channels, 18" long	each 4/-	5/3	8/5
Half round straight channels, 24" long	each 4/8	6/4	10/6
Half round straight channels, 30" long	each 5/10	7/11	13/2
Half round straight channels, 36" long	each 7/-	9/6	15/9
Half round ordinary or long channel bends	each 8/5	12/11	21/-
Half round ordinary or short channel bends	each 6/-	8/5	—
Three-quarter round ordinary branch bends	each 8/1	11/8	—
Three-quarter round ordinary branch bends, midgets	each 7/3	—	—
Half round taper channels 24" long	each 7/10	11/3	—
Half round taper channel bends	each 10/3	17/9	—

These prices are subject to 20% discount.

Channels in Brown Glazed Ware

	4"	6"	9"
Half round straight channels 24" long	each 1/8	1/10½	3/4
Half round straight channels 30" long	each —	—	4/2
Ditto, short lengths	each 1/8	1/10½	—

	4"	6"	9"
Half round ordinary channel bends	each 1/10½	2/9½	5/0½
Ditto, short	each 1/10½	2/9½	—
Ditto, long	each 3/9	5/7½	10/1½
Three-quarter round branch bends	each 5/-	7/6	—
Half round taper channels 24" long	each 3/9	6/9	—
Half round taper channel bends	each 4/8½	8/5½	—

The above prices are subject to the same discounts as those given for "Best" quality salt glazed stoneware pipes.

Manhole Covers

	Black	Galvanized
24" × 18" single seal for foot traffic. (Weight 0.8.0 in lots of 24)	each 14/6	25/9
24" × 18" single seal for light car traffic. (Weight 2 cwt. in lots of 24)	each 38/9	65/3
24" × 18" Wood Block pattern. For road traffic. (Weight 3 cwt.)	each Coated 68/-	—
Cast step irons, 13½" long, 6" wide, 9" in wall, approximate weight 5½ lbs. each	per dozen 14/9	25/6
Galvanized fresh air inlets with cast brass fronts (L.C.C. pattern)	each 5/6	20/3

*MASON**Yorkstone*

Building quality Robin Hood and Woodkirk Blue Stone. Blocks scrapped, random sizes	per foot cube 4/6
Add for blocks to dimension sizes	per foot cube 6d. (each dimension)
Templates with sawn beds, edges rough (up to 4 ft. super and not over 2' 6" long)	per foot cube 5/-
Templates with sawn beds, sawn one edge, per foot cube	6/-
Templates with sawn beds, sawn two edges, per foot cube	7/-
Prices f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 6-ton loads.)	18/3

Ancaster Stone

Freestone, random blocks	per foot cube 3/6
Brown weather bed stone selected for polishing all brown blocks	per foot cube 8/-
Brown and blue weather bed stone selected for polishing	per foot cube 7/-
Prices f.o.r. Ancaster, railway rate to London Station approximately 11½d. per foot cube (minimum 6-ton loads.)	—

White Mansfield Stone

Random blocks (yellow bed) for dressings	per foot cube 4/-
Random blocks (hard middle bed) for steps, pads, pavings and copings	per foot cube 3/6
Prices f.o.r. Mansfield, railway rate to London station, 6-ton lots	per foot cube 1/2

Bath Stone

Random blocks, delivered railway trucks, Paddington or South Lambeth	per foot cube 2/10½
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Portland Stone

Whitbed, in random blocks of 20 feet cube average, delivered railway trucks Nine Elms, South Lambeth or Paddington	per foot cube 4/5
Basebed—add to the above	-3
For every foot over 20 ft. cube average—add per foot cube	-1
For every foot over 30 ft. cube average—add per foot cube	-0½

½" Thick Plain Marble Wall Linings

Roman Travertine	per foot super 5/-
Golden Travertine	per foot super 6/3
Roman stone	per foot super 4/6
Hopton-wood stone	per foot super 5/-
Second statuary	per foot super 4/6
Sicilian	per foot super 4/-

Artificial Stone

6" × 3" Copings and sills	per foot run 1/6
6" × 6" Copings and sills	per foot run 2/4
9" × 3" Copings and sills	per foot run 2/-
9" × 6" Copings and sills	per foot run 3/4
12" × 3" Copings and sills	per foot run 2/4
12" × 6" Copings and sills	per foot run 3/9
Cornices according to detail, per foot cube (from)	6/0

Reconstructed Stone to match Natural Stone

Sills, lintols, coping, cornices, ashlar, etc., average size	per foot cube 11/-
Window sills, 9" × 3" section	per foot run 2/1
" " 7" × 3" section	per foot run 2/-

Slate Slabs, cut to size and Planed

	1"	1½"	1½"
Not exceeding 4' 6" long or 2' 3" wide	per foot super 3/1	3/4	3/11
" " 6' 6" long or 3' 3" wide	per foot super 3/9	4/1	4/10
Exceeding 6' 6" long or 3' 3" wide	per foot super 4/1	4/6	5/2
Rubbed faces	per foot super -5	-5	-6
" edges	per foot run -4	-4	-5

Combined Slate Cills and Window Boards for Metal Windows

Window Width	Straight cills Wall thickness			Circular cills for C.O.P. Frames Radius External reveals		
	9"	11"	13½"	2"	2½"	4½"
1' 8"	4/-	4/8	5/8	2' 4½"	21/-	24/-
3' 3½"	7/4	8/7	10/4	2' 7½"	25/6	28/6
4' 10½"	10/6	12/3	14/10	2' 10½"	30/-	33/3

SLATER, TILER AND ROOFER

Best Bangor Slates				£ s. d.
24" x 12"	..	..	..	per 1,000 actual 33 10 0
22" x 12"	..	..	..	per 1,000 actual 27 19 0
22" x 11"	..	..	..	per 1,000 actual 25 4 9
20" x 12"	..	..	..	per 1,000 actual 24 14 6
20" x 10"	..	..	..	per 1,000 actual 21 15 5
18" x 12"	..	..	..	per 1,000 actual 20 19 3
18" x 10"	..	..	..	per 1,000 actual 17 7 6
18" x 9"	..	..	..	per 1,000 actual 15 11 9
16" x 12"	..	..	..	per 1,000 actual 17 14 9
16" x 10"	..	..	..	per 1,000 actual 15 11 9
16" x 9"	..	..	..	per 1,000 actual 13 19 6
16" x 8"	..	..	..	per 1,000 actual 12 1 11

Prices include for delivery to site in lots of 1,000 and upwards.

Old Delabole Slates (f.o.r.)

Standard sizes.				Prices and computed weights per 1,200.	
				20" x 12"	16" x 10"
Grey medium gradings ..				per 1,200 597/-	866/-
				cwts. 46½	80
Unselected greens (V.M.S.) ..				per 1,200 672/-	418/-
				cwts. 55½	86

Random sizes.

Prices per ton and computed covering capacities in squares per ton.

No. 1 Grading 24" x 22" to 12" x 10"				£ s. d.
Grey ..				per ton 128/-
Covering capacity :				per ton (3" lap) 2.37 squares
				per ton (4" lap) 2.19 squares
No. 2 Grading 24" x 22" to 12" x 10"				£ s. d.
Weathering grey greens (V.M.S.) ..				per ton 139/-
Covering capacity :				per ton (3" lap) 2.25 squares
				per ton (4" lap) 2.08 squares
No. 2 Grading 24" x 22" to 12" x 10"				£ s. d.
Weathering greens (V.M.S.) ..				per ton 149/-
Covering capacity :				per ton (3" lap) 2.25 squares
				per ton (4" lap) 2.08 squares

No. 2 Grading 24" x 22" to 12" x 10"				£ s. d.
Rustic reds (25%) and weathering greens (V.M.S.) ..				per ton 174/-
Covering capacity :				per ton (3" lap) 2.25 squares
				per ton (4" lap) 2.08 squares

Railway rate to Nine Elms, London, minimum 4 tons, 21/9, minimum 6 tons per truck, 18/1 per ton.

Tiles

£ s. d.			
Hand-made sandfaced 10½" x 6½" red roofing tiles			
per 1,000 4 15 0			
Machine-made sandfaced 10½" x 6½" red roofing tiles			
per 1,000 4 0 0			
Berkshire rustic pantiles ..			
per 1,000 18 10 0			

Westmorland Green Slates

Bests, 24" to 12" long. Proportionate widths				£ s. d.
Computed cover in sq. yds.				£ s. d.
Price per ton				£ s. d.
No. 1 Buttermere fine light green ..				240/-
No. 2 " light green (coarse grained) ..				215/-
No. 5 " olive green (coarse grained) ..				197/-
No. 5 Medium green ..				197/-
No. 7 Elterwater fine light green ..				216/-
No. 15 Tilberthwaite fine light green ..				214/-
No. 16 " light green (coarse grained) ..				202/-
Broughton Moor, light sea green, olive green, silver grey green, and mixed shades ..				227/-

Prices include for delivery to any station, minimum 6-ton truck loads.

Asbestos-cement

6" corrugated sheets, grey ..	per yard super	2/11
Standard 3" corrugated sheets, grey ..	per yard super	2/7½

Slates :—

15½" x 7½" grey ..	per 1,000	£6 16 3
15½" x 15½" diagonal, grey ..	per 1,000	£12 18 6
15½" x 15½" diagonal, russet or brindled ..	per 1,000	£16 6 6

Pantiles.

Large russet brown ..	per 1,000	£19 8 6
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Prices are for minimum two-ton loads, and are subject to 5% trade discount.

Cedar Wood Tiles

Canadian cedar wood shingles ..	per square 32/-	(normal quantity).
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Prices include for delivery to nearest railway station in England but vary with quantity.

CARPENTER

Carcassing Timber

Prices are for Standards in one delivery; when less than a standard is required, or special lengths, add £1 per standard.

£ s. d.				Per standard	Per foot cube
4" x 11" Scantling ..				24 5 0	2/11½
4" x 9" ..				23 15 0	2/10½
3" x 11" ..				23 0 0	2/9½
2" x 11" ..				23 10 0	2/10½
3" x 9" ..				22 10 0	2/8½
2" x 9" ..				23 0 0	2/9½
3" x 8" ..				20 10 0	2/6
2" x 8" ..				20 10 0	2/6
3" x 7" ..				20 0 0	2/5½
2" x 7" ..				20 0 0	2/5½
4" x 6" ..				24 0 0	2/11
3" x 6" ..				21 0 0	2/7½
2" x 6" ..				20 0 0	2/5½
3" x 5" ..				20 5 0	2/5½
3" x 4" ..				19 10 0	2/4½
2" x 5" ..				18 10 0	2/3
2" x 4" ..				18 10 0	2/3
1½" x 11" ..				(20 ft. lengths and over) per ft. run	-/4½
1½" x 9" ..				(20 ft. lengths and over) per ft. run	-/3½
1½" x 7" ..				(20 ft. lengths and over) per ft. run	-/2½

Yellow Deal Battens

3" x 1" ..	per 100 feet run	1/4
2" x 1½" ..	per 100 feet run	2/3
2" x 2" ..	per 100 feet run	2/9
1" x 2" ..	per 100 feet run	4/3
1½" x 2" ..	per 100 feet run	5/6

Weather Boarding

¾" x ¾" x 6" Feather edge ..	per square	11/-
¾" x ¾" x 4" Feather edge ..	per square	9/-
Western red cedar :—		
1" x 6" Drop sidings ..	per square	32/-
¾" x ¾" x 6" Feather edge ..	per square	12/6
¾" x ¾" x 4" Feather edge ..	per square	13/6

Roof Boarding

¾" x 6" ..	per square	16/-
1" x 6" ..	per square	19/6

JOINER

Prices are for standards in one delivery; when less than a standard is required, or special lengths, add £1 per standard

Joinery Timber

£ s. d.				Per standard	Per foot cube
£ s. d.				£ s. d.	£ s. d.
3" x 9" Scantling 2nd Archangel ..				42 0 0	5 1½
3" x 9" " 3rd ..				28 10 0	3 5½
2" x 9" " 2nd ..				48 10 0	5 10½
2" x 9" " 3rd ..				28 10 0	3 5½
3" x 8" " 2nd ..				35 10 0	4 3½
3" x 8" " 3rd ..				24 0 0	2 11
2" x 8" " 2nd ..				39 0 0	4 9
2" x 8" " 3rd ..				24 0 0	2 11
3" x 7" " 2nd ..				35 0 0	4 3
3" x 7" " 3rd ..				23 10 0	2 10½
2" x 7" " 2nd ..				38 10 0	4 8½
2" x 7" " 3rd ..				23 0 0	2 9½
2" x 6" " u/s ..				22 0 0	2 8
1½" x 11" " 3rd ..				38 10 0	4 8½
1½" x 9" " u/s ..				34 10 0	4 2½
1" x 9" " 2nd ..				47 10 0	5 9½
1" x 9" " 3rd ..				35 0 0	4 3
1" x 11" " 2nd ..				50 0 0	6 0½
1" x 11" " 3rd ..				39 10 0	4 9½
1½" x 9" " 2nd ..				47 10 0	5 9½
1½" x 9" " 3rd ..				35 10 0	4 3½
1½" x 11" " 2nd ..				50 0 0	6 0½
1½" x 11" " 3rd ..				41 0 0	4 11½

		<i>Flooring</i>	$\frac{7}{8}$ "	1"	1 $\frac{1}{2}$ "
Yellow deal, plain edge					
in batten widths	..	per square	19/9	22/6	30/-
Ditto, T. & G.	.. ..	per square	20/3	23/-	30/6
Ditto, T. & G. narrow					
widths	.. ..	per square		22/-	28/-
T. & G. rift sawn B.C.					
pine in 4" widths	..	per square		30/-	42/6
T. & G. random grain,					
in 4" widths	.. ..	per square		18/6	

Wall Linings				
Deal Match Boarding :—				
1" x 6" T.G.B.	.. ..	per square	24/-	
1" x 4 $\frac{1}{2}$ " T.G.V.	.. ..	per square	23/6	
1" x 6" T.G.B.	.. ..	per square	18/-	
1" x 4 $\frac{1}{2}$ " T.G.V.	.. ..	per square	17/-	
1" x 6" T.G.B.	.. ..	per square	14/9	
1" x 4 $\frac{1}{2}$ " T.G.V.	.. ..	per square	13/9	
1" x 4 $\frac{1}{2}$ " T.G.V.	.. ..	per square	11/3	

Asbestos-Cement :—				
$\frac{3}{16}$ " Semi-compressed flat building sheets, grey	.. ..	per yard super	1/5 $\frac{1}{2}$	
$\frac{3}{16}$ " Ditto	.. ..	per yard super	1/6 $\frac{1}{2}$	
$\frac{1}{4}$ " Ditto	.. ..	per yard super	2 2 $\frac{1}{2}$	
$\frac{1}{4}$ " Metal reinforced flat building sheets	.. ..	per yard super	3/8 $\frac{1}{2}$	
Prices are for orders of less than 1 ton and are subject to 5% trade discount.				

Wall Boards :—				
$\frac{1}{2}$ " Asbestos-cement wallboard (in sheets 8' 0" x 4' 0", 10' 0" x 4' 0" and 12' 0" x 4' 0")	under 5,000 feet super	per foot super	-/2 $\frac{3}{4}$	
$\frac{3}{8}$ " Ditto	.. ..	per foot super	-/2 $\frac{3}{4}$	
The following prices are subject to 10 per cent. trade discount :—				
Asbestos-cement stipple glazed sheets (in sheets 8' 0" x 4' 0" and 4' 0" x 4' 0")	.. ..	per yard super	6/6	
Ditto, plain white glazed sheets (in sheets 8' 0" x 4' 0" and 4' 0" x 4' 0")	.. ..	per yard super	8/6	
Marble glazed sheets (in sheets 8' 0" x 4' 0" and 4' 0" x 4' 0")	.. ..	per yard super	7/-	
	300 yards	300-1,000 yards	1,000-2,000 yards	2,000 yards
$\frac{1}{2}$ " Fibre board	2/-	1/10	1/8	1/6
				Over
				25-75 150-300 600
$\frac{3}{8}$ " Fireproof plaster board	per yard super	2/2	1/10	1/6
$\frac{1}{2}$ " Ditto	per yard super	2/-	1/8	1/4
Joint tape (approx. 250 feet run)	per roll	.. ..	1/6	
Joint filler	per lb.	.. ..	-/4	

Plywoods :—

		4 m/m	5 m/m	6 m/m	9 m/m	15 m/m
Birch (A)	per square	18/9	23/6	—	37/-	—
" (B)	per square	15/6	—	21/-	30/6	43/-
Japanese figured oak (A.A.)	per square	33/6	—	39/3	65/-	—
Austrian oak, figured one side, plain oak reverse (A.A.)	per square	—	—	86/3	92/6	—
Australian walnut, finely figured one side (boards 72" x 36")	per square	—	—	67/6	85/-	—
Sycamore, figured one side (ditto)	per square	—	—	75/-	85/-	—
Honduras mahogany, figured one side (ditto)	per square	—	—	75/-	—	—
Honduras mahogany, finely figured (boards 84" x 36")	per square	—	—	125/-	—	—

Prices are for complete bundles.

Blockboards :—

Alder :—			Boards	Boards
Thickness			60" x 183"	72" x 183"
$\frac{1}{2}$"	.. ..	per square	59/3	59/3
$\frac{3}{4}$"	.. ..	per square	66/3	66/3
1"	.. ..	per square	72/6	72/6
1 $\frac{1}{4}$"	.. ..	per square	79/-	79/-
1 $\frac{1}{2}$"	.. ..	per square	85/6	85/6
1 $\frac{3}{4}$"	.. ..	per square	99/6	99/6
1 $\frac{1}{2}$"	.. ..	per square	114/6	114/6
1 $\frac{3}{4}$"	.. ..	per square	128/-	128/-

Birch :—

Thickness			Boards	Boards
			60" x 84" & 54" x 72"	60" x 140"
$\frac{1}{2}$"	.. ..	per square	43/9	47/3
$\frac{3}{4}$"	.. ..	per square	50/-	54/-
1"	.. ..	per square	55/3	59/6
1 $\frac{1}{4}$"	.. ..	per square	60/-	64/-
1 $\frac{1}{2}$"	.. ..	per square	67/6	72/3

Prices are for complete bundles.

Hardwoods

Joinery Quality.

English oak	.. ..	per foot cube	15/-
American oak (plain)	.. ..	per foot cube	10/-
" (quartered)	.. ..	per foot cube	12/-
Australian Silky Oak (plain)	.. ..	per foot cube	11/-
" (quartered)	.. ..	per foot cube	12/6
Walnut, European	.. ..	per foot cube	18/-
Teak, Rangoon	.. ..	per foot cube	15/-
" African	.. ..	per foot cube	12/-
Mahogany, Honduras	.. ..	per foot cube	13/6
" Cuban	.. ..	per foot cube	18/-
American whitewood	.. ..	per foot cube	9/-
Birch	.. ..	per foot cube	8/-
Cedar (aromatic)	.. ..	per foot cube	16/-
Japanese oak (plain)	.. ..	per foot cube	10/-
" (quartered)	.. ..	per foot cube	12/-
Austrian oak (plain)	.. ..	per foot cube	10/6
" (quartered)	.. ..	per foot cube	14/-

Sundries

Slaters or sarking felt	.. ..	per yard run	-/6
Roofing felt	.. ..	per yard run	-/8
Bituminous hair felt	.. ..	per roll	33/-

All rolls 25 yards long by 32" wide.

Cork slabs, 1" thick (3' 0" x 1' 0")	per foot super	-/4 $\frac{1}{2}$
" 2" thick (3' 0" x 1' 0")	per foot super	-/8
Slagwool	per cwt. (approx.)	12/-
Building paper in rolls of 100 yards, 1-ply, 60" wide (B.I.80 and L.G.I.80)	per roll	67/6
Ditto, 2-ply, 60" wide (B.I.80)	per roll	135/-
Ditto, 2-ply, 60" wide (B.I.20)	per roll	202/6
" Cabots " Quilt :—(Ex Works) Twelve roll lots delivered	carr. free.	
Double ply	per roll 42/-	per half roll 23/6

All rolls 28 yards long by 36" wide. Special terms for quantities

Cut steel clasp nails, 1" per cwt.	29/9	4"	per cwt.	20/9
" floor brads, 2"	20/-	3"	per cwt.	19/6
Bright oval wire nails 1"	29/3	4"	per cwt.	21/3
Scotch glue	.. ..	.. ..	per cwt.	65/-

Floor Clips :—

		£	s.	d.
One leg floor clip	per 1,000	7	10	0
2" short leg floor clip	per 1,000	7	10	0
2" Regular floor clip	per 1,000	7	15	0
3" " "	per 1,000	8	8	0
2" Regular ceiling clip	per 1,000	7	15	0
Single leg ceiling clip (7 $\frac{1}{4}$ ")	per 1,000	10	10	0

Special terms for quantities.

STEEL AND IRONWORKER

Steelwork		£	s.	d.
Basis price for rolled steel joists sections 5" x 3" to 16" x 6", in 10 ft. to 50 ft. lengths	per ton	12	10	0

Extras on above for :—

9" x 7" Section	per ton	0	5	0
4" x 3", 5" x 2 $\frac{1}{2}$ ", 10" x 8", 12" x 8", 14" x 8" and 16" x 8" to 20" x 7 $\frac{1}{2}$ " sections inclusive	per ton	0	10	0
3" x 1 $\frac{1}{2}$ ", 3" x 3", 4" x 1 $\frac{1}{2}$ ", 4 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " and 24" x 7 $\frac{1}{2}$ " sections	per ton	1	0	0
Channels, angles and tees	per ton	13	10	0
Mild steel plates	per ton	13	10	0
Screw bolts	per ton	31	0	0

Fabricated Steelwork

		£	s.	d.
Joists cut and fitted	per ton	16	10	0
Stanchions, ordinary sections with riveted caps and bases	per ton	20	0	0
Stanchions, compound	per ton	23	0	0
Plate girders	per ton	24	10	0
Framed roof trusses, 25' 0" span	per ton	25	0	0
" " " 60' 0" span	per ton	23	0	0

These prices are approximate, and definite quotations should be obtained.

Prime Galvanized Corrugated Iron Sheets (Ex London Stocks)

	10 cwt. lots £ s. d.	Less quantity £ s. d.
4 to 9 fts. 18 or 20 gauge, 8/3" corrugations .. per ton	18 15 0	19 15 0
10 fts. 18 or 20 gauge, 8/3" corrugations .. per ton	19 5 0	20 5 0
4 to 9 fts. 22 or 24 gauge, 8/3" corrugations .. per ton	19 5 0	20 5 0
10 fts. 22 or 24 gauge, 8/3" corrugations .. per ton	19 15 0	20 15 0
4 to 8 fts. 26 gauge, 8/3" corrugations ..	20 10 0	21 10 0
9 fts. 26 gauge, 8/3" corrugations ..	21 0 0	22 0 0
10 fts. 26 gauge, 8/3" corrugations ..	21 10 0	22 0 0

PLASTERER

Plaster and Cement

	1-ton loads	5-ton loads	£ s. d.
Sirapite (coarse) .. per ton	70/-	64/-	
" (fine) .. per ton	78/-	—	
Victorite No. 1 .. per ton	85/-	78/6	6-ton
" No. 2 or non sweat .. per ton	80/-	73/6	loads
Thistle (browning, haired and pink finish) .. per ton	70/-	64/-	
Thistle (fine) .. per ton	78/-	—	
Pink plaster .. per ton	66/-	—	
White plaster .. per ton	78/-	—	
Keene's pink .. per ton	112/6	—	
Keene's white .. per ton	117/6	—	
Super Carbo .. per ton	—	47/6	4-ton
Carbo-setting .. per ton	—	57/6	loads
		1 ton upwards	
		£ s. d.	
Cullamix No. 2 cream (rendering mixture) .. per ton	5 10 0		
" No. 3 cream .. per ton	5 10 0		
Snowcrete mixture .. per ton	5 5 0		

Sundries

Sharp washed sand .. per yard cube	8/-
Cow hair .. per cwt.	40/-
Goat's hair .. per cwt.	55/-
$\frac{7}{16}$ laths .. per bundle	2/-
$\frac{1}{2}$ laths .. per bundle	2/4½
Expanded metal lathing, 9' 0" x 2' 0"	
$\frac{1}{8}$ mesh x 26 gauge .. per yard super	-/11
Lath nails (galvanized) 1½" x 14 gauge .. per cwt.	48/6
" " (bright wire) .. per cwt.	27/-
	Less
	than
150 yds. 300 yds. Over	
$\frac{1}{8}$ Plaster board per yard super	1/-
1½" Galvanized nails .. per lb.	-/5
Scrim cloth in 100-yard rolls .. per roll	2/3

Wall Tiles

Commercial quality.	
Ivory, white, etc., glazed 6" x 6" x ½"	.. per yard super 9/9
Angle beads (1½" wide) ..	.. per yard run 1/2½
" " (1" " ) ..	.. per yard run -/10
Rounded edge tiles ..	.. per yard run 2/6½
Coloured enamelled bright glazed,	
6" x 6" x ½"	.. per yard super 14/3
Angle beads (1½" wide) ..	.. per yard run 1/4½
" " (1" " ) ..	.. per yard run -/11½
Rounded edge tiles ..	.. per yard run 2/7
Eggshell gloss enamelled, 6" x 6" x ½"	.. per yard super 15/-
Angle beads (1½" wide) ..	.. per yard run 1/7½
" " (1" " ) ..	.. per yard run 1/0½
Rounded edge tiles ..	.. per yard run 2/8½

PLUMBER

Lead

8½ lbs. and upwards milled sheet lead in quantities of 5 cwt. and upwards .. per cwt.	22/6
Add if cut to sizes .. per cwt.	3/-
Lead ternary alloy, No. 2 quality extra over sheet lead .. per cwt.	7/-
Allowance for old lead delivered to merchant .. per cwt.	13/-

Cast Iron Rainwater Goods (Painted or Unpainted)

The following prices for rain-water pipes and gutters are subject to 20 per cent. trade discount, and the prices of the fittings are subject to 5 per cent. and 20 per cent trade discount.

Rainwater Pipes

	2"	2½"	3"	3½"	4"	4½"	5"	6"
Round pipes per yard	2/8½	2/9½	3/7½	4/0½	4/9½	6/1½	7/2½	9/2
Shorts, 2' 0", 3' 0" and 4' 0" extra per yard	-/3½	-/3½	-/3½	-/3½	-/3½	-/5	-/5	-/5
Bends .. each	1/9	2/0	2/6	3/0	3/7	5/0	6/6	8/5
Offsets, 4½" and 6" projection .. each	2/2	2/8	3/-	3/5	4/4	6/3	7/6	9/10
Offsets, 9" projection .. each	2/10	3/2	3/9	4/8	5/7	7/6	8/10	11/2
Branches, single .. each	2/7	3/1	3/9	4/4	5/3	7/6	8/5	13/1
Shoes .. each	1/6	1/9	2/-	2/8	3/0	4/4	5/5	7/6
Square and rectangular pipes.								
3" x 3" .. per yard								6/9½
3½" x 3½" .. per yard								8/4
4" x 2" or 2½" .. per yard								7/4½
4" x 3" .. per yard								7/4½
4" x 4" .. per yard								9/0½
4½" x 3" .. per yard								8/5½
5" x 3" or 3½" .. per yard								9/7

Gutters

	3"	3½"	4"	4½"	5"	6"
Half round gutters .. per yard	1/9½	2/1	2/1	2/2½	2/4½	3/7½
Shorts 2' 0", 3' 0" and 4' 0" extra .. per yard	-/2½	-/2½	-/2½	-/2½	-/3½	-/3½
Angles and nozzle pieces .. each	1/5	1/7	1/9	2/0	2/2	3/1
Stop ends .. each	-/5	-/5	-/7½	-/9	-/10½	1/-
Ogee gutters .. per yard	2/1	2/3½	2/4½	2/6	2/9½	3/10½
Straight back and shorts 2' 0", 3' 0" and 4' 0" extra .. per yard	-/2½	-/2½	-/2½	-/2½	-/3½	-/3½
Angles and nozzle pieces .. each	1/11	1/11	2/0	2/4	2/8	3/3
Stop ends .. each	-/6	-/7½	-/9	-/10½	1/-	1/3

Mild Steel Rainwater Goods

The following prices are subject to 12½ per cent. trade discount 24 Gauge rainwater slip jointed pipes.

	2"	2½"	3"	3½"	4"
Galvanized round pipes with ears .. per 6' 0"	2/7½	3/1½	3/9	4/3	4/9
Painted round pipes with ears .. per 6' 0"	2/4½	2/9	3/1½	3/7½	4/-
Painted or galvanized short lengths with ears, extra .. each	-/6	-/6	-/6	-/6	-/6
18 Gauge gutters.					
Galvanized half round gutters .. per 6' 0"	2/-	2/3	2/4½	2/9	3/-
Painted half round gutters .. per 6' 0"	1/6	1/9	2/-	2/3	2/6
Painted or galvanized short lengths extra .. each	-/3	-/3	-/3	-/3	-/3

Asbestos-Cement Rainwater Goods

The following prices are subject to 12½ per cent. trade discount. Orders over £30 are subject to 17½ per cent. trade discount.

Rainwater pipes.

Prices are for 6' 0" lengths, and 10' 0" lengths in 2", 2½" and 3" diameters. Short lengths up to 2' 0" are charged as one yard. From 2' 0" to 4' 0" charged as 1½ yards. From 4' 0" to 6' 0" charged as 2 yards. Over 6' 0" charged as 10' 0".

Round pipes.

2" .. per yard run	1/10
2½" .. per yard run	2/0½
3" .. per yard run	2/5½
3½" .. per yard run	2/11½
4" .. per yard run	3/4½
4½" .. per yard run	4/10½
5" .. per yard run	5/9½
6" .. per yard run	7/1½

Gutters.

Short lengths of gutter up to 2' 0" charged as 1 yard; from 2' 0" to 4' 0" as 1½ yards, and over 4' 0" as 2 yards.

Half round gutters .. per yard run	3"	4"	4½"	5"	6"	8"
Ogee gutters .. per yard run	1/3½	1/6½	1/7½	1/11	2/8	3/3½
	1/11	2/0½	2/5½	3/0½	3/11½	

INTERNAL PLUMBER

Lead pipe in coils, 5 cwt. and upwards .. per cwt.	22 -
Lead soil pipe .. per cwt.	25 -
Add if ribbon marked .. per cwt.	-/3
Lead ternary alloy, No. 2 quality extra over lead pipe .. per cwt.	7/-
Plumber's solder .. per cwt.	95/-
Tinman's solder .. per cwt.	122/-

Drawn lead traps with brass screw eye, 6 lbs.

S. trap	each	1" 1/7	1 1/10	1 1/2	2" 3/3
P. trap	each	1 1/5	1 1/6	1 1/10	2 1/8
Extra for 3" deep seal	each	-6	-6	-6	-6

Screwed and Socketed Steel Tubes and Fittings for Gas, Water and Steam, etc.

Tubes.		1"	1 1/2"	2"	2 1/2"	3"
Tubes 2 ft. long and over	per ft.	-5 1/2	-6 1/2	-9 1/2	1/1	1 1/4
Pieces 12" to 23 1/2" long	each	1/1	1/5	1/11	2/8	3/4
Bends	each	-11	1/2	1 7/8	2 7/8	3 1/2
Fittings.						
Elbows, square	each	1/1	1/3	1/6	2/2	2 7/8
Elbows, round	each	1/2	1/5	1/8	2/4	2 10/16
Tees	each	1/3	1/7	1/10	2/6	3/1
Crosses	each	2/9	3/3	4/1	5/6	6 7/10
Sockets, plain	each	-4	-5	-6	-8	-10 1/3
Sockets, diminished	each	-6	-7	-9	1/-	1 1/4
Flanges	each	1/-	1 1/2	1 1/4	1 1/9	2/-
Caps	each	-5	-6	-8	1/-	1 1/3
Plugs	each	-4	-5	-6	-8	-10

Fittings and flanges and tubes ordered in long random lengths are subject to the following trade discounts:—

	Tubes	Fittings	Flanges
Gas	62 1/2%	53 1/2%	57 1/2%
Water	58 1/2%	50%	52 1/2%
Steam	56 1/2%	46 1/2%	47 1/2%
Galvanized gas	53 1/2%	46 1/2%	47 1/2%
" water	48 1/2%	42 1/2%	42 1/2%
" steam	43 1/2%	38 1/2%	37 1/2%

Brasswork. Best Quality

	1"	1 1/2"	2"
Brass screw-down bibcocks, with crutch top, screwed for iron	per dozen 33/-	51/-	90/-
Ditto, with screw ferrule	per dozen 38/-	57/-	99/-
Chromium plated easy clean screw-down bibcocks, with capstan head lettered, screwed for iron	per dozen 54/-	78/-	153/-
Ditto, with screw ferrule	per dozen 61/-	88/-	166/-
Brass Screwdown Stop Cocks			
both Ends	Ends	with Male with Unions	Brass Screwdown Stop Cocks with Male and Iron Unions
1 1/2"	per dozen 44/-	33/-	41/-
1 1/4"	per dozen 65/-	51/-	50/-
1 1/2"	per dozen 99/-	83/-	93/-
1 1/4"	each 13/6	11/9	12/9
1 1/2"	each 21/9	18/6	20/3
2"	each 41/3	38/3	39/-

	1"	1 1/2"	2"
Portsmouth pattern ball valve for low pressure, screwed for iron	each 4/1	5/11	12/-
Ditto, with flynut and union	each 4/9	6/9	13/6
High pressure ditto, screwed for iron	each 4/1	5/11	12/-
Ditto, with flynut and union	each 4/9	6/9	13/6
Socket thimble sloping shoulder			
per dozen	10/-	13/-	22/-
Flanged ferrule thimble	per dozen 8/-	10/-	17/5
Union joints for lead and iron	per dozen 8/3	11/3	15/5
Single nut short boiler screws	per dozen 6/-	9/-	15/-
Double nut boiler screws	per dozen 9/-	10/-	16/-
Belfast sink wastes stamped with diameter of outlet 2"	brass with brass plug per dozen	23/-	44/-
			69/-

Galvanized Mild Steel Open Top Cisterns riveted with internal angle iron at top and corner plates

The following prices are subject to 15% and 20% trade discount:—

	14-gauge	12-gauge	1" plate	1 1/2" plate
50 gallon capacity	each 2 5 11	2 14 5	3 1 7	7 0 8
100	each 3 8 9	4 2 11	4 16 9	9 10 8
200	each 6 6 9	6 19 5	7 18 3	13 1 0
500	each 12 6 0	13 16 1	15 16 3	22 6 9
1,000	each —	21 9 4	24 19 5	34 15 4

Galvanized Hot Water Tanks, fitted with handhole cover.

The following prices are subject to 15% and 20% trade discount:—

Capacity	16-gauge tested to a pressure of 1 lb. per sq. inch = 1 1/2 ft. head of water	14-gauge tested to a pressure of 3 lbs. per sq. inch = 4 1/2 ft. head of water	12-gauge tested to a pressure of 7 1/2 lbs. per sq. inch = 10 ft. head of water	1" plate tested to a pressure of 10 lbs. per sq. inch = 15 ft. head of water
20 gallons	each £ s. d. 2 0 3	£ s. d. 2 3 11	£ s. d. 2 7 8	£ s. d. 3 16 8
40 "	each	3 1 7	3 9 0	3 16 8
Tested to a pressure of 5 lbs. per sq. inch = 7 1/2 ft. head of water				
60 gallons	each	£ s. d. 4 19 3		£ s. d. 5 5 5
80 "	each			5 5 7
100 "	each			8 4 5
Tested to a pressure of 7 1/2 lbs. per sq. inch = 10 ft. head of water				
60 gallons	each			£ s. d. 5 5 5
80 "	each			5 5 7
100 "	each			8 4 5

Screwed flanges or bosses

1"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	Extra per flange or boss.
1/8	2/4	2/11	3/4	3/9	4/8	0/9		
2 1/8	3"	3 1/8	4"	4 1/8	5"	6"		
8/4	14/8	16/9	19/3	26/11	30/1	45/1		

Galvanized Hot Water Cylinders, Mild Steel Riveted throughout, without Manhole, with usual number of flanges

The following prices are subject to 15% and 20% trade discount:—

Capacity	16-gauge tested to 5 lbs. pressure = 10 ft. head of water	14-gauge tested to 15 lbs. pressure = 30 ft. head of water	12-gauge tested to 20 lbs. pressure = 40 ft. head of water	1" plate tested to 25 lbs. pressure = 50 ft. head of water
20 gallons	each £ s. d. 1 18 7	£ s. d. 2 2 8	£ s. d. 2 8 4	£ s. d. 2 15 4
40 "	each 2 10 11	2 16 8	3 6 1	3 15 0
65 "	each	4 8 7	5 1 8	5 16 1
75 "	each	5 1 7	5 15 0	6 11 4
85 "	each		6 10 8	7 11 9
100 "	each			8 2 5

Cast Iron Soil Pipes and Connections, L.C.C. 3/8" metal.

The following prices for soil pipes are subject to 20% trade discount, and the prices of the fittings are subject to 20% and 5% trade discount.

	2"	2 1/2"	3"	3 1/2"	4"	5"	6"
Minimum weights in lbs. per 6' 0" length	24	30	35	41	46	78	92
Pipes coated or uncoated	per yard run 3/10 1/4	4/0 1/4	4/5 1/4	5/-	5/8 1/4	11/8	14/0 1/4
Double sockets extra	each -11 1/4	-11 1/4	-11 1/4	-11 1/4	-11 1/4	1/0 1/2	1/0 1/2
Short lengths extra	2", 3" and 4" per yard run	-3 3/4	-3 3/4	-3 3/4	-3 3/4	-5	-5
Single spigot branch cast on pipe	each 4/3	4/5	4/7	4/9	4/11	7/6	9/3
Single socket branch cast on pipe	each 10/9	11/-	11/3	11/6	11/9	16/-	19/-
Bends, standard angles	each 3/1	3/5	3/9	4/8	5/3	9/4	12/9
Large radius bends	each 4/-	4/4	5/-	6/-	7/-	13/-	16/9
Inspection bends raised flange door, 4 gunmetal bolts	each 16/1	16/11	17/9	18/8	19/3	31/10	36/6
Swannecks 4 1/2" and 6" projection	each 3/9	4/4	5/11	6/10	7/11	14/11	20/1
9" ditto	each 5/-	5/7	6/10	7/11	9/4	17/1	22/10
12" ditto	each 5/11	6/10	7/11	9/8	10/7	19/1	27/1
Single branch with two sockets	3/9	4/8	5/7	6/6	7/6	15/10	21/8
T pieces							
T pieces diminishing two sockets, inverted two sockets							
Parallel branch pieces not exceeding 6" centres	4/10	5/11	6/10	7/11	8/11	—	—
Y pieces							
Anti-syphon branches with curved arm							
Double branch pieces, three sockets	each 5/11	7/-	7/11	9/-	10/3	20/3	27/3
Inspection branch pieces double oval access door, 2 gunmetal screws	each 12/11	14/-	14/11	16/6	17/9	29/2	36/2
Long branch pieces	each 5/-	6/-	7/3	8/6	9/9	19/-	25/-

COPPERSMITH AND ZINC WORKER**Copper**

Hot rolled copper sheeting in 1 cwt. lots, all gauges to 24 wire gauge	..	..	..	per lb.	-9 1/2
Copper tube, seamless solid drawn	..	..	..	per lb.	1 0 3/4
Copper wire, 10 and 12 gauge	..	..	..	per lb.	-9 1/2
Copper nails, 1" and up	..	..	..	per lb.	-11

Fittings for Copper Tubes

Compression Type	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
Straight coupling	each	1 1/4	1 4/8	2 0 1/2	2 8	3 9 3/4	5 7 3/4
Obtuse elbow	each	1 10 1/2	2 2 1/2	3 3	4 1 1/2	7 1 1/2	10 5 3/4
Tees	..	each	2 1 1/2	2 5 1/2	4 -	5 9 1/2	9 3
Crosses	..	each	3 -	3 4 1/2	5 2 1/2	6 3 1/2	10 11 1/2
Reducing coupling	..	each	—	1 4 1/2	2 0 3/4	2 8	3 9 3/4
Bends	..	each	1 7 1/2	1 11 1/2	2 11	3 8 3/4	6 7 1/2
Brass stop cocks	..	each	3 11 1/2	5 10 3/4	8 7 1/2	15 11 1/2	22 3 3/4

Extra for Polishing 25%; Chromium plating 50%; Nickel plating and polishing 50%.

Capillary Type

Straight coupling	each	-7 1/2	-10 1/4	1 3 3/4	1 8 1/2	2 3 3/4	3 4 1/2	5 9
45° elbow	each	1 3 3/4	1 8 1/2	2 4 1/2	3 2	4 9	7 1 1/2	11 1
Tees	..	each	1 5 1/2	1 7 3/4	2 8	3 11 1/2	5 7 1/2	8 3 1/2
Crosses	..	each	1 10 1/2	2 0 1/2	3 4 1/2	4 9	7 2 1/2	10 6
Reducing coupling	..	each	—	-6 1/2	-8 3/4	1 0 3/4	1 7	2 9 1/2
Bends	..	each	1 7	1 11	2 9 1/2	3 9 1/2	5 11 1/2	8 3 3/4
Pillar tap connection	..	each	1 -	1 5 1/2	—	—	—	—

Extra for Polishing 15%; Chromium plating 40%; Nickel plating 27 1/2%.

Zinc

Sheet zinc, 10 gauge and up per cwt.	Quantities of less than 3 cwt.	Quantities of more than 3 cwt.	Quantities of more than 5 cwt.
	32/6	32/-	31/6

		5 sheets and under	12 sheets
8 gauge zinc safe hole perforated sheets, size 8' 0" x 3' 0" . .	per sheet	4 11 $\frac{1}{2}$	4 2 $\frac{1}{2}$
7 gauge ditto	per sheet	4 4 $\frac{1}{2}$	3 9
6 gauge ditto	per sheet	3 11	3 4 $\frac{1}{2}$

GLAZIER**Sheet Glass cut to size (ordinary glazing quality)**

			In squares not exceeding 2 ft. 4 ft. 6 ft. 8 ft.	Over 8 ft.
18 oz. clear sheet	..	per foot super	-2 1/2	-2 3/4
24 oz. ditto	..	per foot super	-2 3/4	-3 1/4
32 oz. ditto	..	per foot super	-4	-5 1/2
Obscured sheet glass net extra	..	per foot super	-1 1/2	-1 1/2
1/8" figured rolled glass, white	..	per foot super	-6 1/2	-7 1/2
1/8" ditto, normal tints	..	per foot super	-9 1/2	-10 1/2
Hammered, double rolled, Cathedral white	..	per foot super	-6	-7 1/2
Ditto, normal tints	..	per foot super	-8 1/2	-9 1/2

Thick Drawn Sheet Glass cut to size

			In squares not exceeding 1 ft. 2 ft. 3 ft. 4 ft. 6 ft. 8 ft.	Over 8 ft.
3/16" thick	..	per foot super	-9	-11
1/4" thick	..	per foot super	-11	-13

$\frac{3}{16}$ " thick	per foot super	1 5 $\frac{1}{2}$	1 8	1 8	—	—	—
$\frac{1}{4}$ " thick	per foot super	1 9 $\frac{1}{2}$	2 3	2 3	2 6 $\frac{1}{2}$	2 10 $\frac{1}{2}$	2 10 $\frac{1}{2}$

For selected glazing quality add 10 per cent. to the above prices.

For selected glazing quality add 10 per cent. to the above prices.

British or Foreign Polished Plate Glass cut to size

Ordinary 1/4" Substance	Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
In Plates not exceeding 1 ft. super	per foot super	1/1	1/7
2 "	per foot super	1/5	1/10
3 "	per foot super	1/10	2/6
4 "	per foot super	2/6	3/2
6 "	per foot super	2/9	3/3
12 "	per foot super	2/11	3/8
45 "	per foot super	3/1	4/2
65 "	per foot super	3/4	4/11
90 "	per foot super	3/7	5/1
100 "	per foot super	3/9	5/4

Plates exceeding 100 ft. super or 160 in. long or 104 in. wide at higher prices.

The usual thickness of polished plate glass is about 1/4", but if required of special thickness for glazing purposes add to the above for :—

		Plates up to and including 4 ft. super	All plates over 4 ft. super
1/4" to 1/2" exact	per foot super	-2	-4
1/2" to 3/4" exact	per foot super	-2	-3
3/4" bare	per foot super	No extra	-1 1/2
1/2" exact	per foot super	-2	-1 1/2
3/4" to 1" exact	per foot super	No extra	-2
1" exact	per foot super	-2	-4 1/2

Special quotations should be obtained for other qualities and thicker substances.

Silvering

		Ordinary Quality on Polished Plate, Thick Drawn Sheet, Patent Sheet and Plain Sheet	On Embossed or Decorative Work
12 ft. super or 90 in. long	per ft. super	9d.	1/4
20 ft. " or 100 in. long	per ft. super	10d.	1/4
45 ft. super	per ft. super	1/-	1/5
50 ft. " or 110 in. long	per ft. super	1 0 1/4	1/6
55 ft. " or 120 in. long	per ft. super	1 1	1/8
60 ft. " or 130 in. long	per ft. super	1 1 1/2	1/7
65 ft. " or 140 in. long	per ft. super	1 2	1/8
70 ft. " or 150 in. long	per ft. super	1 3	1 9 1/2
75 ft. " or 160 in. long	per ft. super	1 4	1 11
80 ft. " or 170 in. long	per ft. super	1 5	2 0 1/2
85 ft. " or 180 in. long	per ft. super	1 8	2 5
90 ft. " or 190 in. long	per ft. super	1 11	2 9 1/2
95 ft. " or 200 in. long	per ft. super	2 2	3 2
100 ft. " or 210 in. long	per ft. super	2 5	3 8

For silvering on fluted sheet, figured rolled and cathedral, add 4d. a foot to the prices set out in the first column for polished plate, etc.

Silvering bent glass, double or more, according to bend.

For plates over 100 ft. super add 3d. per ft. super for every 5 ft. or part of same.

Plates over 160 in. long at special rates.

Stripping for re-silvering, add 8d. per ft. super.

Wired Glass Cut to Sizes

1-in. Georgian rough cast	..	per ft. super	10d.
		In squares not exceeding 1 ft. 2 ft. 3 ft. 4 ft.	
1-in. Georgian polished plate	per ft. super	2/6	2/8
		8 ft. 12 ft. 20 ft. 30 ft.	
1-in. Georgian polished plate	per ft. super	3/8	3/10
		4/2	4/6
Supplied in sizes up to 110 in. long and up to 36 in. wide.			
For cutting to allow for wires in adjacent pieces to be "lined up," add 4d. per foot super.			

PAINTER

White ceiling distemper	..	per cwt.	11/6
Washable distemper	..	per cwt.	60/-
Petrifying liquid	..	per gallon	4/6
Ready mixed white lead paint (best) 5-cwt.	..	per cwt.	66/-
lots, in 14 lb. tins	..	per gallon	25/-
White enamel	..	per gallon	20/-
Aluminium paint	..	per cwt.	49/3
Stiff white lead, genuine English process, 1-ton lots, in 1-cwt. kegs	..	per cwt.	36/-
Driers	..	per gallon	3/-
Linseed oil raw (5-gallon drums)	..	per gallon	3/3
" boiled	..	per gallon	11/6
French polish	..	per gallon	16/-
Knotting	..	per gallon	12/-
Oil stain	..	per gallon	10/-
Varnish, oak	..	per gallon	16/-
" copal	..	per gallon	20/-
Varnish, flat	..	per gallon	3/3
Turpentine, genuine American, 5-gallon lots	..	per gallon	1/4
Creosote, 1-gallon lots	..	per cwt.	13/-
Putty	..	per firkin	3/6
Size	..	per book	2 4 1/2
Best English quality gold leaf, 23 carat	..	per book	3/6
Extra thick, ditto	..	per book	3/6

PRICES FOR MEASURED WORK—MARCH 1939

Prices are for work executed complete and are for an average job in the London Area; all prices include overhead charges and profit for the General Contractor.

PRELIMINARIES

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

EXCAVATOR

	Ordinary Ground	Clay
Surface digging average 9" deep and wheeling and depositing on spoil heap, not exceeding two runs per yard super	-/9	1/1
Excavating not exceeding 5' 0" deep to form basement and getting out per yard cube	1/11	2/10½
Ditto, exceeding 5' 0" deep and not exceeding 10' 0" deep per yard cube	2/5	3/6
Excavating not exceeding 5' 0" deep to form surface trenches and getting out per yard cube	2/7	3/10
Ditto, exceeding 5' 0" deep and not exceeding 10' 0" deep per yard cube	3/7	5/0
Ditto, not exceeding 5' 0" deep to form basement trench excavation commencing 10' 0" deep, and getting out per yard cube	3/4½	4/6
Returning, filling in and ramming around foundations per yard cube	1/1	1/5
Filling barrows and wheeling and depositing excavated soil not exceeding two runs per yard cube	1/1	1/5
Spreading and levelling from excavated heaps in layers not exceeding 12" per yard cube	-/9	1/-
Filling into carts or lorries and carting away per yard cube	4/6	4/10
Planking and strutting to sides of basement, excavation, including strutting per foot super	1/-	-/9
Planking and strutting to surface trenches (both sides measured) per foot super	-/4½	-/3
Hardcore, broken brick, filled in under floors and well rammed and consolidated per yard cube	6/6	
Hardcore, broken brick, deposited, spread and levelled, and rammed to a true surface 6" thick per yard super	1/4	

CONCRETOR

Foundations and Mass Concrete

Portland cement concrete 1 : 6 with unscreened ballast, in foundations and masses exceeding 12" thick per yard cube	20/2
Ditto, 1 : 3 : 6, with one part of cement and three parts of sand and six parts of clean gravel per yard cube	20/9
Ditto, 1 : 2 : 4 with one part of cement, two parts of sand and four parts of ½" crushed graded shingle per yard cube	25/7
Add if mixed by hand labour per yard cube	2/-
Add if in foundations not exceeding 12" thick per yard cube	2/3
Add for mechanical hoisting per yard cube	1/6
Add for hand hoisting per 10 feet per yard cube	2/3

Surface Beds

Portland cement concrete 1 : 6, bed 6" thick, spread and levelled per yard super	3/10
Add or deduct for each inch over or under 6" in thickness per yard super	-/5½
Add for surface finished with spade face per yard super	-/3½
Add if laid in two layers with fabric reinforcement (measured separately) per yard super	-/3½

Upper Floors and Flats

Portland cement concrete 1 : 2 : 4 as before described, 6" thick, packed around fabric reinforcement (measured separately) finished with spade face per yard super	5/3
Add or deduct for each inch over or under 6" in thickness per yard super	-/7½

Casings

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

Portland cement concrete, over 36 inches and not exceeding 72 inches sectional area per foot cube	1/4½
Ditto, ditto, over 72 inches and not exceeding 144 inches sectional area per foot cube	1/3½
Ditto, ditto, over 144 inches sectional area per foot cube	1/2½

Walls in Situ

Portland cement concrete 1 : 6 with unscreened ballast in 9" walls packed around rods (m/s) per yard super	6/6
Ditto, in 12" walls per yard super	7/11

Reinforcement

1" diameter and upwards mild steel rod reinforcement, cut to lengths, including bends and hooked ends and embedding in concrete lintols per cwt.	21/-
Under ½" diameter, ditto per cwt.	22/6

Formwork

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

BRICKLAYER

	Flettons £ s. d.	Second Stocks £ s. d.	Blue Staffordshire Wirecuts £ s. d.
Reduced brickwork in lime mortar 1 : 3 with ½" joints per rod	22 19 9	31 18 8	
Ditto, ¾" joints per rod	22 12 7	30 17 2	

Reduced brickwork in cement mortar 1 : 3 with ½" joints per rod	24 14 9	33 13 2	50 13 2
Ditto with ¾" joints per rod	24 13 3	32 16 11	49 4 9

Add if lime mortar hand mixed per rod	5/8	5/8	
Ditto cement mortar per rod	12/9	12/9	9/-
Half brick walls in lime mortar 1 : 3 ½" joints per yard super	5/1	7/-	
Ditto in cement mortar 1 : 3 per yard super	5/5½	7/5	11/1
Labour forming 2" cavity to hollow walls including wall ties, etc. per yard super			-/9

Add to the price of reduced brickwork for brickwork in underpinning per rod	4 0 0
Ditto, for brickwork circular on plan to flat sweep per rod	5 0 0
Ditto, ditto, to quick sweep per rod	10 0 0
Extra for internal fairface and flush jointing per yard super	1/1½

Extra for grooved bricks as key for plaster per yard super	-/3
Raking out joints ditto per yard super	-/4½
Hacking concrete ditto per yard super	-/6
Horizontal double slate damp-proof course 4½" wide bedded in cement mortar per foot run	-/4
Ditto exceeding 4½" in width per foot super	-/10
Vertical ditto per foot super	1/-
"Ledkore" (Grade B) D.P.C. per foot super	-/9
Plumbing angles per foot run	-/1
Rake out joints and point to lead flashings per foot run	-/2
Ditto stepped per foot run	-/3
Bedding door frames per foot run	-/1
Ditto and pointing one side per foot run	-/2
Ditto and pointing both sides per foot run	-/3
Parge and core flues each	4/-
Set and staunch only chimney pots each	5/-
Hoisting and fixing metal windows size 3' 6" x 4' including cutting and pinning lugs to brickwork and bedding frames in cement mortar and pointing in mastic on one side each	5/-
Ditto, including screwing to wood frame (measured separately) each	3/-
	9" x 3" 9" x 6"

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

Partitions

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

Facings

Prices are extra over Fletton brickwork and are for raking out joints and pointing with a neat struck weathered ½" joint in cement mortar. For raking joints and pointing in white cement add an extra 11d. per yard super to the following prices.

	Flemish Bond	English Bond	Stretcher Bond
Stock facings p.c. 93/- .. per yard super	4/11	5/4	4/1
Rustic Flettons p.c. 70/6 .. per yard super	3/4	3/6	2/11
Blue pressed p.c. 180/- .. per yard super	11/7	12/11	9/1
Sand faced hand made reds p.c. 120/- .. per yard super	8/-	8/7	6/4
White glazed headers p.c. 470/- and stretchers 480/- .. per yard super	32/-	36/-	24/8
For a variation of 10/- per M. in p.c. of facing bricks size 8½" x 2½" on face with ½" joints add or deduct			
per yard super	-/9	-/10	-/6½

	Rustic Flettons	Stock Facings	Faced Hand Made Reds
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Half brick wall stretcher bond in cement mortar built fair and joints raked out and pointed in cement mortar on one side .. per yard super 8/7½ 9/9½ 12/-

Ditto and pointed both sides per yd. super 10/6 11/8 13/10

One brick wall in cement mortar built fair and joints raked out and pointed in cement mortar on one side .. per yard super 15/5 17/8½ 22/1

Ditto and pointed both sides per yd. super 17/3 19/6½ 23/10

Half brick wall built in best quality white glazed one side bricks, stretcher bond, in cement mortar built fair and pointed in Parian cement .. per yard super 31/-

Ditto white glazed both sides and pointed both sides .. per yard super 41/9

Labour and material in hand made sand faced red brick on end window head and pointing to face and 4½" soffit .. per foot run 1/3

Hand made, sand faced brick on edge coping including double course of tile cressing with two cement angle fillets to one brick wall .. per foot run 2/3

DRAINLAYER

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

	Ordinary ground	Clay
Prices per 12" average depth per foot run :		
Trenches not exceeding 3' 0" deep ..	-/2½	-/3
Ditto, exceeding 3' 0" and not exceeding 5' 0" ..	-/5½	-/7
Ditto, exceeding 5' 0" and not exceeding 10' 0" ..	-/8½	-/9½
6" thick Portland cement concrete bed 6 : 1, 12" wider than diameter of pipe, and flanchied halfway up sides of pipe .. per foot run	4" 6"	6" 10"
6" ditto, and completely encasing per foot run	1/7	1/11
Agricultural land drain pipes, laid complete with butted joints, exclusive of digging .. per yard run	2" 3" 4" 6"	3" 4" 6" 1/1

British Standard Quality Salt Glazed Socketed Stoneware Drainpipes and Fittings

	4" pipes	6" pipes	9" pipes
Under 2 tons, 100	Under 2 tons, 100	Under 2 tons, 100	
Over 2 tons, 2-ton lots	Over 2 tons, 2-ton lots	Over 2 tons, 2-ton lots	
Pipes jointed in 1:1 cement and sand .. per foot run	1/1	1/3	1/7
Extra for bends .. each	1/4	1/7	2/2
Ditto, single junction each	1/10	2/2	2/4
Trapped yard gulleys with galvanized iron gratings, and setting in concrete and jointing to drain	9/-	11/6	13/-
Ditto, with horizontal back inlet .. each	10/6	13/3	14/6

Trapped yard gulleys with vertical back inlet each 11/3 14/- 15/3 16/9 21/3 24/9

Intercepting trap with Stanford stopper and setting in manhole and making good .. each 20/6 24/- 25/6 29/- — —

Coated Cast Iron Socketed Drain Pipes

	4"	6"	9"
Pipes in 9' 0" lengths and laying in trench, including caulked lead joints			
per foot run	3/4½	5/1	8/11
Cutting and waste .. each	1/9	3/6	—
Extra for bends, including extra joints and cutting and waste on pipe .. each	10/8½	20/3½	58/6½
Ditto, junction ditto .. each	17/2	32/6	97/11
Intercepting trap .. each	48/2	78/1	180/-
H.M.O.W. large socket gully trap with 9" gully top and heavy grating and one back inlet ..	44 10½	78/8	—
H.M.O.W. gully trap with 9" inlet with high invert outlet for use with raising pieces ..	33/5	48/-	—
4" inspection chamber with one 4" branch .. each		65/2	
4" ditto with two 4" branches one side .. each		97/9	
6" ditto with one 4" branch .. each		94/2	
6" ditto with two 6" branches one side .. each		138/3	
9" ditto with one 9" branch .. each		209/9	
9" ditto with two 9" branches one side .. each		321/5	

4" half-round straight main channel 24" long each 5/10 2/1

Ditto, channel bends (ordinary) .. each 8/6 3/-

4" Three-quarter round branch bends (short) each 8/6 6/9

Fixing only, manhole covers and frames, including bedding in grease and setting in cement mortar .. each 4/-

ASPHALTER

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

	Natural Rock Asphalt	Best Second Quality
--	----------------------	---------------------

Basement (Tanking). 1½" horizontal d.p.c. in three layers on concrete .. per yard super 8/5 6/10

½" vertical ditto in three coats on brickwork or concrete .. per yard super 11/6½ 10/-

Double angle fillet .. per foot run -/6½ -/5½

Hard Graded Paving. 1" thick .. per yard super 7/4 6/3½

½" thick .. per yard super 6/3½ 5/8½

½" dampcourse finish, with smooth surface to receive lino or other floor covering .. 5/8 4/8½

Roofing (Flat). ½" thick in 2 layers .. per yard super 6/3½ 5/3

1" ditto .. per yard super 7/4 6/3½

Extras. Felt supplied and fixed .. per yard super -/6½ —

Expanded metal reinforcement ditto .. per yard super 1/0½ —

6" skirting and fillet on brickwork .. per foot run 1/0½ -/11½

6" ditto on wood (reinforced) .. per foot run 1/2½ 1/1½

Nosing at eaves on lead apron (measured separately) .. per foot run -/3½ -/3½

Parapet outlets .. each 4/2½ 3/8

PAVIOR. Granolithic paving .. per yard super 2/7½ 3/6 4/7

Add for dusting with carborundum powder .. per yard super — -/9

Cement and sand paving (1 : 3) .. per yard super 1/10 2/4½ —

½" Jointless flooring, red, buff or brown, finished to a smooth trowelled surface, on concrete sub floors .. per yard super 5/3

½" Ditto, in two coats on spade faced concrete or wood sub floors .. 6/7

½" thick ditto, reinforced with laths and galvanized wire netting .. per yard super 6/0½

Add for polishing .. per yard super -/8½

Terrazzo paving, white chips set in white cement, panelled into squares with 1½" x ½" deep ebonite strips, on and including cement and sand screed. Total thickness 1½" .. per yard super 19/5

Ditto, but white chips set in grey Portland cement .. per yard super 17/4

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TABLE GIVING REDUCTION COEFFICIENTS (β) FOR ROUND SOLID AND TUBULAR SECTIONS AS ECCENTRICALLY LOADED COLUMNS (STRUTS):

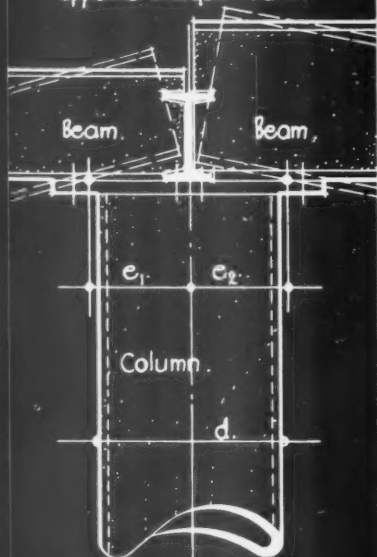
COLUMNS FORMED FROM ROUND SOLID & TUBULAR SECTIONS TO WITHSTAND BENDING MOMENTS AS WELL AS DIRECT LOAD:

FIGURE 1:
showing resultant of axial eccentric loading.



$$r = \sqrt{e_x^2 + e_y^2}$$

FIGURE 2:
Eccentricity due to opposite unequal loads.



Issued by Braithwaite & Co.,
Engineers, Ltd.

Compiled by C. W. Hamann,
Consulting Engineer.

Outside dia. d, INS.	Type of col. sec. #	Eccentricity r , INS.	LENGTH OF COLUMN OR STRUT IN FEET.													
			4.	5.	5.5.	6.	6.5.	7.	7.5.	8.	8.5.	9.	10.	12.	14.	16.
1.	S.	1.00	0.42	.	.	.	.	.	.	.	.	.	.	.	.	.
	T.	1.00	0.62	0.47	0.40	.	.	.	.	.	.	.	.	.	.	.
1½.	S.	1.25	0.70	0.54	0.47	0.42	.	.	.	.	.	.	.	.	.	.
	T.	1.25	0.99	0.76	0.69	0.61	0.55	0.50	0.45	0.42	.	.	.	.	.	.
2.	S.	1.50	0.99	0.76	0.69	0.61	0.55	0.50	0.45	0.42	.	.	.	.	.	.
	T.	1.50	1.26	1.08	0.99	0.89	0.82	0.75	0.69	0.62	0.57	0.54	0.47	.	.	.
2½.	S.	1.75	1.19	0.99	0.89	0.80	0.73	0.67	0.61	0.55	0.52	0.47	0.42	.	.	.
	T.	1.75	1.37	1.24	1.17	1.09	1.02	0.95	0.86	0.80	0.75	0.72	0.62	0.48	0.40	.
3.	S.	2.00	1.32	1.16	1.08	0.99	0.91	0.82	0.76	0.72	0.66	0.61	0.54	0.42	.	.
	T.	2.00	1.41	1.35	1.31	1.26	1.20	1.13	1.06	1.01	0.94	0.88	0.78	0.62	0.52	.
3½.	S.	2.25	1.38	1.28	1.22	1.15	1.08	0.99	0.92	0.85	0.79	0.75	0.67	0.52	0.42	.
	T.	2.25	1.43	1.40	1.37	1.33	1.29	1.24	1.20	1.15	1.09	1.04	0.94	0.76	0.62	0.44
4.	S.	2.50	1.41	1.34	1.29	1.24	1.19	1.12	1.05	0.99	0.92	0.86	0.76	0.61	0.50	.
	T.	2.50	1.45	1.43	1.41	1.39	1.37	1.34	1.31	1.26	1.22	1.19	1.09	0.91	0.75	0.55
4½.	S.	2.75	1.43	1.39	1.35	1.32	1.27	1.22	1.16	1.11	1.10	0.99	0.89	0.72	0.57	0.42
	T.	2.75	1.46	1.43	1.42	1.41	1.39	1.37	1.34	1.32	1.28	1.24	1.16	0.99	0.82	0.61
5.	S.	3.00	1.44	1.41	1.39	1.35	1.33	1.28	1.24	1.19	1.15	1.09	0.99	0.80	0.67	0.49
	T.	3.00	1.48	1.45	1.44	1.43	1.42	1.41	1.40	1.38	1.35	1.33	1.28	1.15	0.99	0.75
5½.	S.	3.25	1.45	1.43	1.41	1.39	1.37	1.34	1.31	1.26	1.22	1.19	1.09	0.91	0.75	0.55
	T.	3.25	1.49	1.46	1.45	1.44	1.43	1.41	1.41	1.39	1.38	1.35	1.31	1.19	1.10	0.80
6.	S.	3.50	1.46	1.43	1.42	1.41	1.39	1.37	1.34	1.32	1.28	1.24	1.16	0.99	0.82	0.61
	T.	3.50	1.49	1.47	1.46	1.45	1.43	1.43	1.42	1.41	1.41	1.39	1.35	1.26	1.13	0.88
7.	S.	4.00	1.48	1.45	1.44	1.43	1.42	1.41	1.40	1.38	1.35	1.33	1.28	1.15	0.99	0.75
	T.	4.00	1.50	1.49	1.48	1.47	1.46	1.45	1.44	1.43	1.43	1.41	1.40	1.34	1.26	1.05
8.	S.	4.50	1.49	1.47	1.46	1.45	1.43	1.43	1.42	1.41	1.40	1.38	1.34	1.24	1.12	0.86
	T.	4.50	1.50	1.49	1.49	1.48	1.48	1.47	1.46	1.45	1.44	1.43	1.42	1.39	1.33	1.16

* S MEANS SOLID COLUMN, T MEANS TUBULAR COLUMN.

The values given to the right of or above the zig-zag line may be applied to secondary compressive members. They should not be applied to main structural columns or struts, for which the values lie to the left of the zig-zag line. The criterion is a slenderness ratio of 150.

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INFORMATION SHEET

• 804 •

STRUCTURAL STEELWORK

Subject : Economical Column Sections to withstand Bending Moments as well as Direct Load : 6, Round, Solid and Tubular Sections

General :

This series of Sheets on steel construction is not intended to cover the whole field of engineering design in steel, but to deal with those general principles governing economical design which affect or are affected by the general planning of the building. It also deals with a number of details of steel construction which have an important effect upon the design of the steelwork.

Both principles and details are considered in relation to the surrounding masonry or concrete construction, and are intended to serve in the preliminary design of a building so that a maximum economy may be obtained in the design of the steel framing.

This Sheet is the thirty-second of the series and sets out in tabular form the reduction coefficients by which may be calculated the comparative economic efficiencies of eccentrically loaded columns, composed of round, solid and tubular sections.

Column Type :

Round, solid and tubular sections are not entirely suitable for taking considerable bending moments, but solid sections are still much less efficient than tubular sections.

Axes :

As such sections are symmetrical in all directions, no particular distinction need be made with regard to the eccentricity in the different directions.

Eccentricity :

If a proportion of the total load a_1 has an eccentricity about the x -axis, e_x , and a proportion a_2 has an eccentricity about the y -axis e_y , the case may be considered equivalent to one in which the total load has an eccentricity

$$\sqrt{a_1^2 e_x^2 + a_2^2 e_y^2}$$

This is explained in Figure 1.

Eccentricities may occur due to the loads coming from different sides not acting in the centre, but as shown in Figure 2. It is suggested that they may always be assumed to act at a distance from the centre

$$r = \frac{d + 1}{2}$$

where d is the diameter of the column.

Efficiency Coefficients :

The table on the front of this Sheet is to be read in conjunction with Sheet No. 15 of this series, and if the efficiency coefficient (e) given in the table on that Sheet is called C_1 , the actual efficiency coefficient is

$$\frac{C_1}{1 + \alpha\beta}$$

where β is taken from the table on the front of this Sheet, and α is the proportion of load which acts at the eccentricity given in column under heading r .

Where the whole load acts at any other eccentricity r_1 , α may be taken as $\frac{r_1}{r}$.

For the use of the formula, see also Sheet No. 28 of this series.

Previous Sheets :

Previous Sheets of this series dealing with 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.

Issued by: Braithwaite & Co., Engineers, Ltd.

Address : Horseferry House, Horseferry Road,
Westminster, London, S.W.1

Telephone : Victoria 8571

Terrazzo tiles, white chips set in white cement :—			
Size 9" × 9" × ½"	per yard super	30/6	
Size 12" × 12" × 1"	per yard super	18/8	
Ditto, but white chips set in grey Portland cement :—			
Size 9" × 9" × ½"	per yard super	18/11	
Size 12" × 12" × 1"	per yard super	17/1	
Sheet rubber	per yard super	11/7	14/8
Rubber tiles	per yard super	13/8	16/10
Cork tiles, polished	per yard super	12/10½	11/-
Hard red paving bricks laid flat (9" × 4½" × 2½")	per yard super	9/-	
Ditto, laid on edge	per yard super	11/9	
6" × 6" best quality red quarry tiles	per yard super	10/-	
6" × 6" best quality buff quarry tiles	per yard super	10/6	
2" Yorkshire stone paving, square joints and bedding	per yard super	22/-	
2" Finished path of coarse gravel finished with good binding gravel to slight camber	per yard super	1/7½	
3½" Do. path of clean hard clinker and 1½" gravel finished to slight camber	per yard super	2/3	
7½" Carriage drive of 3" clinker, 3" coarse gravel and 1½" binding gravel finished to slight camber	per yard super	3/9	
2½" Tar paving in two layers finished with Derbyshire spar	per yard super	4/9	

MASON

Stone and all labours of usual character, covering 7" on bed, roughly squared at back, fixed and cleaned down complete	per foot cube	11/-	16/-
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Templates tooled on exposed faces, sawn beds and joints, and set in cement mortar :			
	Thickness		

Size 9" × 9"	each	1/8	2/3	3/4½
" 14" × 9"	each	2/7½	3/6	5/3
" 18" × 14"	each	5/3	7/-	10/6
" 22½" × 14"	each	6/6	8/8	13/-
" 27" × 14"	each	7/10½	10/6	15/9

Artificial Stone			
In steps, copings, band courses, etc., per foot cube	from		9/-

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

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

SLATER, TILER AND ROOFER

Bangor and Portmadoc Slates			
20" × 10"	16" × 8"	24" × 12"	
Slates laid to a 3" lap and fixed with zinc nails	per square	79/-	77/-

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

Randoms			
Ordinary grey greens	per square	91/3	
Weathering grey greens (V.M.S.)	per square	101/9	

No. 2 Gradings			
24" × 22" to 12" × 10"			
Weathering greens (V.M.S.)	per square	107/-	

Westmorland Green Slates			
Bests 24" to 12" long proportionate widths			

Randoms			
No. 1 Buttermere, fine light green	per square	122/9	
No. 2 Buttermere, light green (coarse grained)	per square	120/9	
No. 5 Buttermere, olive green (coarse grained)	per square	117/6	
Broughton Moor light sea green, olive green, silver grey green and mixed shades	per square	127/6	

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

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

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

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

Asbestos			
Russet brown asbestos cement roofing tiles 15½" × 15½" laid diagonally with 2½" lap, per square		38/-	

CARPENTER

Centering			
Turning piece to flat soffits 4½" wide	per foot run	-/4	
(For Formwork see "Concrete.")			

Fir Sawn and Fixed			
Plates, dragon ties, sleeper joists and lintols, ground floor (4" × 2" and 4" × 3")	per foot cube	3/7	
Floor joists (7" × 2")	per foot cube	4/1	
Partitions (stud) (4" × 2" and 4" × 3")	per foot cube	4/10	
Rafters and ceiling joists (4" × 2" and 4" × 3")	per foot cube	4/7	
Purlins (6" × 4")	per foot cube	5/3	
Hand labour wrot face	per foot super	-/2	
Machine ditto	per foot super	-/1	
Rebates, grooves, beads, chamfers and splays	per foot run	-/1	

1½" × 9" ridge	per foot run	-/6½	
1½" × 11" hips or valleys, including cutting ends of rafters against same	per foot run	-/8½	
Extra labour trimming 6" × 2" floor joists around fireplace, including notching ends of joists at 14" centres to trimmer joist 7' 0" long and two tusk tenons	each	6/-	
Boring small hole per inch of depth	per doz.	-/6	
Ditto large	per doz.	1/-	

Deal Battening for Slates and Tiles			
2" × 1" spaced for Countess (20" × 10") slates to 3" lap	per square	10/3	
2" × 1" ditto for Ladies (16" × 8")	per square	13/6	
2" × 1" ditto for Duchess (24" × 12") ditto	per square	8/5	
2" × 1" ditto for randoms 24"/22" to 12"/10"	per square	11/6	
1½" × ½" ditto for plain tiles (10½" × 6½") to a 4" gauge	per square	13/7	
1½" × 1" ditto for pantiles to approximately 11½" gauge	per square	6/7	

Roof Boarding			
Deal roof boarding in batten widths close jointed	per square	27/1	32/7

Ditto, prepared for patent flat roofing and including firrings to falls	per square	37/1	42/7
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Small tilting fillet	per foot run	-/2	
Large ditto	per foot run	-/4	

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

Weather Boarding			
Rough deal feather edge boarding in batten widths ½" average with 1½" laps	per square	28/9	
Western Red Cedar ditto	per square	31/2	

Fascia and Soffite Boards			
1" × 6" deal splayed fascia fixed to rafter feet	per foot run	-/4½	
1" × 9" deal soffit tongued both edges, including grooves	per foot run	-/7½	

JOINER

Deal Flooring			
Plain edge flooring in batten widths	per square	38/-	46/10
Ditto tongued and grooved ditto	per square	41/9	51/-
T. & G. B.C. Pine rift flooring in narrow widths	per square	57/-	—

Wood Block Flooring, laid herringbone, 100 yards and up

D.G. and T.G. kiln dried, 2 block border, laid in hot mastic composition on cement screed, including 2 feet run of straight cutting per yard super, and wax polishing at time of laying.

		1" nominal	1½" nominal
Burma teak	per yard super	12 1	16 3
Canadian maple	per yard super	10 4	11 11
25-30 per cent. quart Austrian Oak	per yard super	11 7	14 8
Plain American Oak (no selection made for sap)	per yard super	10 6	—
Gurjun	per yard super	12 2	13 1
Pitch Pine (50% rift sawn)	per yard super	10 6	12 4
Ditto (100% ditto)	per yard super	12 1	14 2
British Columbian Pine	per yard super	8 5	8 11
Deal, 100 per cent. rift sawn	per yard super	8 8	10 1
Jarrah	per yard super	10 9	—
Additional straight cutting 5½d. per foot run			

Secret Nailed Tongued and Grooved Strip Flooring, fully Desiccated, including Polishing

		1" nominal	1½" nominal
Austrian Wainscot Oak	per square	8 18 6	10 12 7
Plain Japanese Oak	per square	7 10 8	9 2 2
Plain American Oak	per square	7 7 0	9 3 9
Pitch Pine	per square	7 0 6	8 15 7
British Columbian Pine	per square	4 14 6	5 7 7
Canadian Maple	per square	6 19 1	8 10 7
Burma Teak	per square	8 18 6	10 17 4
English Oak	per square	10 4 9	12 15 11
Gurjun	per square	6 19 1	8 10 7
Jarrah	per square	6 13 10	8 6 5

Wall Linings

¾" Deal tongued and grooved V-jointed Matching in narrow widths	per square	31/7
¾" (6 mm.) Birch (B) Plywood and fixing to walls	per square	35/7
¾" Asbestos cement sheets butt jointed	per foot super	-3½
¾" Fibre board and fixing to walls	per yard super	2/11
Deal battens as grounds plugged to brickwork	per foot super	-1½
1½" x ¾" wrot and chamfered fillets	per foot run	-1½
2" x 1½" wrot and moulded ditto	per foot run	-1½

Skirtings

	Deal	Austrian Oak
1" chamfered or moulded 4" high, fixed to and including grounds and backings planted on	per foot run	-3½
per foot run	-3½	-7½
Add for plugging to brickwork	per foot run	-0½
Fitted ends on hardwood price as 4" of skirtings, mitres as 6".		
Fitted ends, etc., on deal skirting included in price per foot run.		

Casements and Fanlights

	1½"	2"
Deal stock moulded sashes divided into squares with glazing bars	per foot super	1 4½
per foot super	1 4½	1 5½
Add for hanging casements (butts measured separately)	each	1 9
		2/-

Cased Frames and Sashes

Deal cased sashed frame, including 2" double hung sashes, with 6" x 3" Oak cill and brass axle pulleys, sash line and weights, average 15 feet super	per foot super	3 9
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Doors in Deal

	¾"	1"	1½"
Matchboarded, ledged and braced door	per foot super	1/-	1 2
per foot super	1/-	1 2	1 4
	1½"	1½"	2"
Framed, ledged and braced door, filled in with matchboarding	per foot super	1 5	1 9
Ditto garage doors	per foot super	1 5	1 10
			1 7
	4-panel		
1½" square framed, both sides	per foot super	1 7	
2" ditto	per foot super	1 9	
1½" bead butt panels one side, but square the other	per foot super	1 9	
2" ditto	per foot super	1 11	
1½" moulded both sides	per foot super	1 10	
2" ditto	per foot super	2/-	
For fixing only, p.c. doors, allow	per foot super	-2½	
Hardwood doors two-and-a half times as much as deal.			
Deal glazing beads, mitred and bradded	per foot run	-1½	
Ditto and fixed with brass cups and screws	per foot run	-3	

PRICES FOR MARCH, 1939

Window and Door Linings

	1"	1½"	1½"
Deal linings, 6" wide, tongued at angles and planted on including backings per foot run	-6½	-7	-8
Add for plugging to wall	per foot run	-0½	-0½
Add for rebating	per foot run	-0½	-0½
Add for ½" x 2" Deal stop planted on	per foot run	-1½	-1½
Deal window board 9" wide, with rounded nosing, tongued at back and on and including bearers plugged to brickwork	per foot run	-10	-11
¾" Deal scotia mould	per foot run	-1½	1 1
Oak linings 6" wide tongued at angles and planted on including backings	per foot run	1 2½	1 4½
per foot run	1 2½	1 4½	1 7½
Add for plugging to brickwork	per foot run	-1	-1
Add for rebating	per foot run	-1	-1
Add for ½" x 2" Oak stop planted on	per foot run	-3½	-3½
Oak window board 9" wide, with rounded nosing tongued at back and on and including bearers plugged to brickwork	per foot run	1 10	2 1
¾" Oak scotia mould	per foot run	-3½	

Window and Door Frames

	Deal	Austrian Oak
4" x 3" door frames	per foot run	-10
4" x 3" window frames	per foot run	1/-
4" x 3" transoms and mullions	per foot run	1 3½
6" x 3" door cill, sunk weathered twice throated and grooved for water bar (measured separately)	per foot run	—
per foot run	—	3 9
6" x 3" window ditto	per foot run	—
per foot run	—	3 1
Add or deduct for variation in sectional area per square inch	per foot run	-0½
Add for each labour, for chamfer, bead or rebate, etc.	per foot run	-0½
Add for each moulding	per foot run	-0½

Architraves

	Deal	Oak
1" x 3" chamfered or moulded architraves, including mitres on softwood, planted on	per foot run	-3
per foot run	-3	-7½
Mitred angles on oak price as 6" of architrave.		
Add for plugging to brickwork	per foot run	-0½
Add for narrow splayed grounds	per foot run	-1½

Shelving

	Deal	Oak
Slat shelving of 1" x 2" spaced ½" apart	per foot super	-9
1" shelving	per foot super	-10
1½" ditto	per foot super	-11½
1" cross-tongued shelving	per foot super	1/-
1½" ditto	per foot super	1 1½
1" x 2" chamfered bearers planted on	per foot run	-2½
Add if bearers plugged to brickwork	per foot run	-0½

Teak Draining Boards and Twice Oiling

1½" Moulmein cross-tongued fluted draining board fixed to slight falls	per foot super	3 9
½" x 2" rounded rim bedded in white lead and screwed to edge of draining board	per foot run	-5
½" x 4" rounded skirting fillet ditto	per foot run	-9

Staircases

	Deal	Oak
1½" treads and 1" risers	per foot super	2/-
2" strings, fixed	per foot run	1 10
Housing treads and risers to strings	each	-9
3" x 2½" French polished moulded handrail	per foot run	—
per foot run	—	2 6
1½" x 1½" square balusters 2' 6" long	each	-10
4" x 4" Newels with chamfered edges and fixing	Deal	Oak
per foot run	1 4	3 4

IRONMONGER**Fixing only**

	Softwood	Hardwood
4" Butt hinges to softwood	per pair	1/-
4" ditto to hardwood	per pair	1 4
16" T. hinges to softwood	per pair	1 6
48" Collinges patent gate hinges to softwood	per pair	7 6
6" Cabin hooks	each	-7½
Hat and coat hooks	each	-3
Cupboard knobs	each	-3
Night latches	each	1 6
Thumb latches	each	1 6
Letter plate and knocker, including perforation in door	each	2 6
Barrel or tower bolts	each	-10
Flush bolts	each	1 6

		Softwood	Hardwood
Rim locks and furniture	each	2/-	2/8
Mortice ditto	each	3/-	4/-
Rebated ditto	each	3/6	4/8
Grip handles	each	-/6	-/8
Cupboard locks	each	1/-	1/4
Spring catches	each	-/10½	1/1½
Caseament fastener	each	1/-	1/4
Ditto stays	each	-/10	1/1
Sash fastener	each	-/8	-/11

STEEL AND IRONWORKER

(For Rainwater Goods—see "Plumber.")

		£	s.	d.
Steelwork				
Basis for plain rolled steel joists ..	per ton	15	16	6
Fabricated Steelwork				
Joists cut and fitted	per ton	20	0	6
Stanchions, ordinary sections with riveted caps and bases	per ton	23	10	6
Stanchions, compound	per ton	25	11	6
Plate girders	per ton	27	19	6
Framed roof trusses, 25' 0" span ..	per ton	30	4	6
Ditto ditto 60' 0" span ..	per ton	28	5	0

The above prices are ex mills ordered well in advance of delivery.

Prices ex London stocks are considerably higher and definite quotations should be obtained.

		20 B.G.	22 B.G.
Wrot Iron Work			
Simple balusters and handrail fixed (excluding mortices, etc.)	per cwt.	56/-	
Bolts and nuts fitted	per cwt.	45/-	
Galvanized Corrugated Sheet			
Sheeting in 3" corrugations and fixing on wood framing with screws and galvanized embossed curved washers including laps ..	per square	53/5	46/5
Ditto fixed to steel framing ..	per square	60/6	54/1

PLASTERER

		Per yard super	In narrow widths per foot super
Lime and Sirapite Plastering			
Expanded metal lathing		1/8	-/3
1" x ½" sawn laths		-/9	-/1½
Render and set in lime and hair		1/8	-/3½
Render, float and set in lime and hair ..		2/-	-/3½
Plaster, float and set ditto on lathing (measured separately)		2/1½	-/4
Render and set with Sirapite		1/9½	-/3½
Plaster, float and set ditto on lathing (measured separately)		2/3	-/4
Skimming coat Sirapite		1/5½	
½" thick plaster board fixed including covering joints with scrim cloth		2/-	
Keenes			
Cement plain face on and including a backing of Portland cement and sand		2/6	-/5
Mouldings and Labours			
Plain cornices and mouldings 6" girth ..	per foot run	-/9½	-/11
Labour arris, quirk or throat	per foot run	-/1½	-/1½
Ditto rounded angle	per foot run	-/2	-/2
Ditto staff bead	per foot run	—	-/7½

Mitres price as 12" of moulding, stopped ends as 6", and rounded angles as 18".

		1"	½"
Portland Cement and Sand (1:3)			
Screeds to floors for wood or tiles ..	per yard super	1/2½	1/4
Screeds for tiling, etc., on walls ..	per yard super	1/4	1/6
Renderings to walls—one coat float finish ..	per yard super	1/6	1/8
Plainface	per yard super	1/10	2/-

		3/10	3/10	3/6
Coloured Cement Plainface				
Cullamix No. 2 or 3 cream, on and including water repellent cement and sand backing	per yard super	3/10		
Snowcrete mixture on and including ditto ..	per yard super	3/10		
Snowcrete and white silica sand on and including ditto ..	per yard super	3/6		

For raking out joints of brickwork, keyed bricks or hacking face of concrete, to form key for plastering, see "Bricklayer."

		16/-	1/5	21/3	-/7½	22/1	-/6½
Wall Tiles, Commercial Quality							
6" x 6" x ½" ivory or white	per yard super	16/-					
Extra for rounded edge tiles	per yard run	1/5					
6" x 6" x ½" coloured enamel bright glazed ..	per yard super	21/3					
Extra for rounded edge tiles	per yard run	-/7½					
6" x 6" x ½" eggshell gloss enamelled ..	per yard super	22/1					
Extra for rounded edge tiles	per yard run	-/6½					

EXTERNAL PLUMBER

		Lead	Gutters, Flashings, etc.	Soakers cut to size
Milled sheet lead and labour	per cwt.	38/10	39/11	41/0½
Bedding edges in white lead	per foot run	-/2		
Lead wedgings to flashings	per foot run	-/1½		
Ditto to stepped flashings	per foot run	-/2		
Dressing 6-lb. lead over glass and glazing bars ..	per foot run	-/3½		
Copper nailing	per foot run	-/1½		
Close ditto	per foot run	-/2		
Bossed ends to rolls	each	-/7½		
Extra labour dressing through shoots and into rainwater heads	each	3/-		
Ditto to cesspools, including extra solder	each	5/3		

		3"	4"
Cast Iron Rainwater Goods			
Rainwater Pipes fixed to brickwork.			
Round pipes	per foot run	1/5½	1/9
Extra for bends	each	2/2	2/10
Ditto 6" offset	each	2/4	2/10
Ditto single branches	each	2/7	3/1
Ditto shoes	each	1/7	2/2
Square and rectangular pipes	per foot run	3/2	2/10
Extra for elbows	each	4/11	3/6
Ditto single branches	each	5/9	5/4
Ditto shoes	each	4/8	4/3
Gutters fixed to fascia			
Half-round gutters	per foot run	1/-	1/2½
Extra for angles	each	1/9	2/3
Ditto nozzles	each	1/7	2/5
Ditto stop ends	each	1/-	1/4
Ogee gutters	per foot run	1/1½	1/4
Extra for angles	each	1/9½	2/3
Ditto nozzles	each	1/8	2/3
Ditto stop ends	each	1/1½	1/4½

INTERNAL PLUMBER

		½"	¾"	1"	1½"
Service.					
Pipes laid in trenches	per foot run	-/10½	1/2	1/8½	2/4½
Add if fixed on walls	per foot run	-/2	-/3	-/4	-/5
Ditto if in short lengths	per foot run	-/1	-/1	-/1½	-/2
Pipes laid in trenches	per foot run	2/11½	3/11½	—	—
Add if fixed on walls	per foot run	-/6	-/8	—	—
Ditto if in short lengths	per foot run	-/3	-/4	—	—
Distributing.					
Cold water pipes fixed to walls	per foot run	-/10½	1/2½	1/7½	2/2½
Add if in short lengths	per foot run	-/1	-/1	-/1½	-/2
Cold water pipes fixed to walls	per foot run	2/9	3/6½	—	—
Add if in short lengths	per foot run	-/3	-/4	—	—
Flushing and Warning.					
Waste and overflow pipes fixed in short lengths	per foot run	-/8½	-/10½	1/2	1/5
Waste and overflow pipes fixed in short lengths	per foot run	1/9½	2/5½	—	—
Soil and Ventilating					
Pipes fixed, including lead tacks per foot run ..		5/2½	5/10	6/8½	
Bends	each	1/6	2/9	3/9	4/3
Soldered joints to fittings	each	2/1½	2/4	2/7	2/9
Soldered branch joints (price as largest branch)	each	2/3½	2/6	2/9	3/3
Soldered branch joints (price as largest branch)	each	3/8	4/-	4/6	5/-
Wrap small pipes with hair felt	per foot run	-/6			
Drawn Lead Traps					
P. Traps 6 lb. with cleaning eye and two soldered joints	each	7/1	7/7½	8/3	8/9½
S. ditto	each	7/6	8/0½	8/8	9/2½
Brasswork (Best Quality)					
Brass screwdown stop cocks including two soldered joints	each	8/1	10/3	13/11	
Ditto, including two red lead joints for iron	each	4/9	6/7	9/7	
Ditto, including one soldered and one red lead joint	each	6/7	7/9	12/-	

High pressure Portsmouth pattern ball valve with flynut and union and one soldered joint	each	8/8	11/1	18/11
Ditto, including red lead joint for iron	each	6/4	9/-	16/1
Brass thimble and soldered and cement joints	each	2"	4"	
Ditto, with solder and caulked lead joints	each	4/11	9/3	
		5/11	11/-	

Fixing Only (Connections to Pipes measured separately)

24" x 18" x 6" sinks including taps, etc., and pair of brackets cut and pinned to brickwork	..	..	..	each	6/-
24" x 18" lavatory basins ditto	..	..	..	each	6/6
W.C. suite comprising pan and trap, seat, W.W.P. and brackets	..	..	..	each	10/6
Baths, including taps, etc., and setting in position	..	..	..	each	10/6

Screwed and Socketed Galvanized Steam Quality Steel Tubes and Fittings

Pipes up to and including 1½" include short running lengths, sockets, connectors, elbows, bends, fire bends; Tees and Diminishing Pieces enumerated.

Distributing.

Pipes fixed to walls	½"	¾"	1"	1½"	2"
per foot run	-1/10	1/-	1/4	1/10	2/4

Pipes fixed to walls, in short lengths, fittings, etc., measured separately

per foot run	½"	¾"	1"	1½"	2"
	-1/10	1/-	1/4	1/10	2/4
Extra for					
Firebends ..	each	-4/-	-8/-	-9/-	1/3
Bends ..	each	1/2	1/5	1/8	2/6
Round elbows ..	each	1/5	1/8	2/-	2/4
Square ditto ..	each	1/5	1/8	1/11	2/3
Tees ..	each	1/6	1/10	2/1	2/9
Crosses ..	each	2/9	3/2	3/10	5/-
Diminishing pieces	each	-10/-	-11/-	1/2	1/6
Caps ..	each	-7/-	-8/-	-10/-	1/-
Plugs ..	each	-6/-	-6/-	-8/-	-11/-

Cast Iron Waste, Soil and Vent Pipes

		2"	3"	4"	5"	6"
L.C.C. pipes in 6' 0" lengths fixed to brickwork	per foot run	1/10	2/-	2/5	4/5	5/4
Extra for bends ..	each	5/3	6/1	7/10	11/-	14/9
Ditto single branches ..	each	6/5	8/2	11/-	17/6	23/6
Ditto swannecks 6" projection	each	6/1	8/9	11/1	16/1	22/-
Extra for access door or any fitting	each	6/9	6/9	7/3	8/6	8/6

Zincworker

		13 G.	14 G.	15 G.	16 G.
Rolled sheet zinc on flats	per foot super	-7½	-8½	-9½	-10
Ditto in gutters, cover flashings, etc.	per foot super	-8½	-9	-10	-10½
Ditto in stepped flashings	per foot super	-10½	-11	1/-	1/0½
Labour and risk dressing over glass	per foot run	-4½	-4½	-4½	-4½
Capped ends to rolls ..	each	-2½	-2½	-2½	-2½
Extra labour to cesspools ..	each	2/7½	2/7½	3/2	3/2

Copperworker

		½"	¾"	1"	1½"	2"
Solid drawn copper tube fixed to walls	per foot run	-9	1/-	1/5½	1/10	2/3
Add if in short lengths	per foot run	-0½	-0½	-1/-	-1½	-2
		-2½	-2			

Compression type

Straight couplings	each	1/10	2/2	3/-	3/9	5/1	7/3
Obtuse elbows ..	each	2/8	3/2	4/5	5/6	8/10	12/7
Tees ..	each	3/1	3/6½	5/4	7/4½	11/3	15/7
Crosses ..	each	4/1½	4/8	5/8½	8/-	13/2	18/-
Reducing couplings	each	—	2/2	3/-	3/9	5/1	7/3
Bends ..	each	2/5	2/10½	3/1	5/-	8/3	11/11
Brass stopcocks	each	5/6	7/10	11/-	19/3	26/6	43/6

Capillary type

Straight couplings	each	1/6	1/11	2/7	3/3	4/1	5/4½
45° Elbows ..	each	2/4	2/11½	3/10½	4/11	6/10	9/7
Tees ..	each	2/7	3/-	4/3	5/10	7/10	11/-
Crosses ..	each	3/1	3/6	5/1½	6/10	9/8	13/5
Reducing couplings	each	—	1/7	2/-	2/6	3/3	4/8
Bends ..	each	2/8	3/2	4/3	5/7	8/1	10/11
Pillar tap connections	each	1/11	2/6				

				24 G.	28 G.
Rolled sheet copper on flats	per foot super	1/5	1/7		
Ditto in gutters, cover flashings, etc.	per foot super	1/6	1/8		
Ditto in stepped flashings	per foot super	2/1½	2/4½		
Labour and risk dressing over glass	per foot run	-4½	-4½		
Capped ends to rolls ..	each	-3½	-3½		
Extra labour to cesspools	each	3/8	3/8		

GLAZIER**Sheet Glass (Ordinary Glazing Quality)**

18 oz. clear sheet and glazing to wood, sprigged and with back and front putties, to all normal sizes not exceeding 60" in length or 40" wide	..	..	per foot super	-6½
24 oz. ditto	..	..	per foot super	-7½
32 oz. ditto	..	..	per foot super	-11½

Obscured ground sheet glass, net extra to above prices

per foot super	-1½
¼" figured rolled white glass and glazing to wood with beads (measured separately)	..
per foot super	-10½
Ditto, normal tints, ditto	..
per foot super	1/2½

Hammered double rolled cathedral white ditto

per foot super	-10
Ditto, normal tints, ditto	..
per foot super	1/1½

Add for glazing into metal frames (ordinary rebates)

per foot super	-1½
Ditto, metal sashes with ferroput	..
per foot super	-2½
Ditto, solid metal casements and screw beads	per foot super
per foot super	-3½

Wash leather strip or similar material and bedding edge of glass

per foot run	-3½
Glazing only, thick drawn sheet glass, polished plate or wire polished plate for all normal sizes. (For prices of glass see materials section and add profit, say 10 per cent.)	per foot super
per foot super	-6½

PAINTER**Whitening, Distempering and Painting (on new Plastered Walls)**

Twice distempering white	..	per yard super	-5
Ditto, in common colours	..	per yard super	-7
Add for stippling	..	per yard super	-2

Preparing and painting two coats of undercoating and one coat of enamel

per yard super	1/9
Preparing and Painting Two Coats of Oil Colour on Ironwork after fixing	

General surfaces

per yard super	1/1½
Perforated landings and staircases both sides (one side measured)	..
per yard super	2/6

Pipes, bars, balusters, etc., not exceeding 3" girth

per yard run	-1½
Metal window frames	..
per yard run	-2½

Eaves gutters

per yard run	-7½
2" Rainwater pipes	..
per yard run	-3

4" ditto

per yard run	-6
Squares one side	..
per dozen	1/9

Large ditto

per dozen	2/3
Extra large ditto	..
per dozen	3/-

Edges of casements

each	-3
Painting on New Woodwork	

Knot, prime, stop and paint three coats

oil colour	
each coat	
more or less	

General surfaces

per yard super	2/-
Fascias and soffits	per yard super
per yard super	2/6

Fillets, skirtings, etc., not exceeding 3" girth

per yard run	-3
Ditto, not exceeding 6"	..
per yard run	-5½

Ditto, not exceeding 9"

per yard run	-7
Ditto, not exceeding 12"	..
per yard run	-9

Squares one side

per dozen	3/6
Large ditto	..
per dozen	4/6

Extra large ditto

per dozen	6/-
Edges of casements	..
each	-6

Sundries

Twice creosoting woodwork	..	per yard super	-6
Twice limewhiting brickwork	..	per yard super	-4½

Sizing**Staining****Once Varnish**

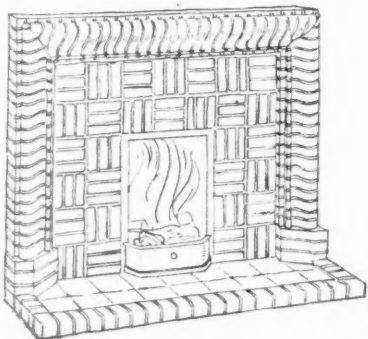
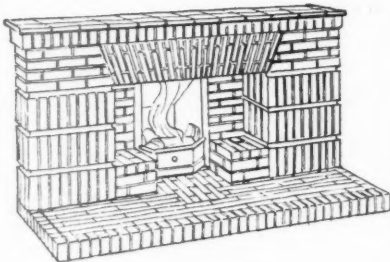
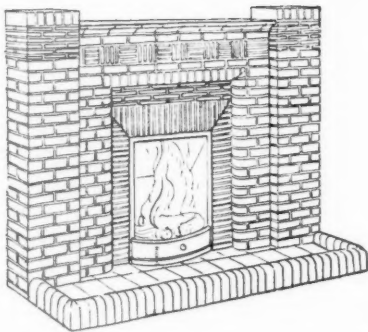
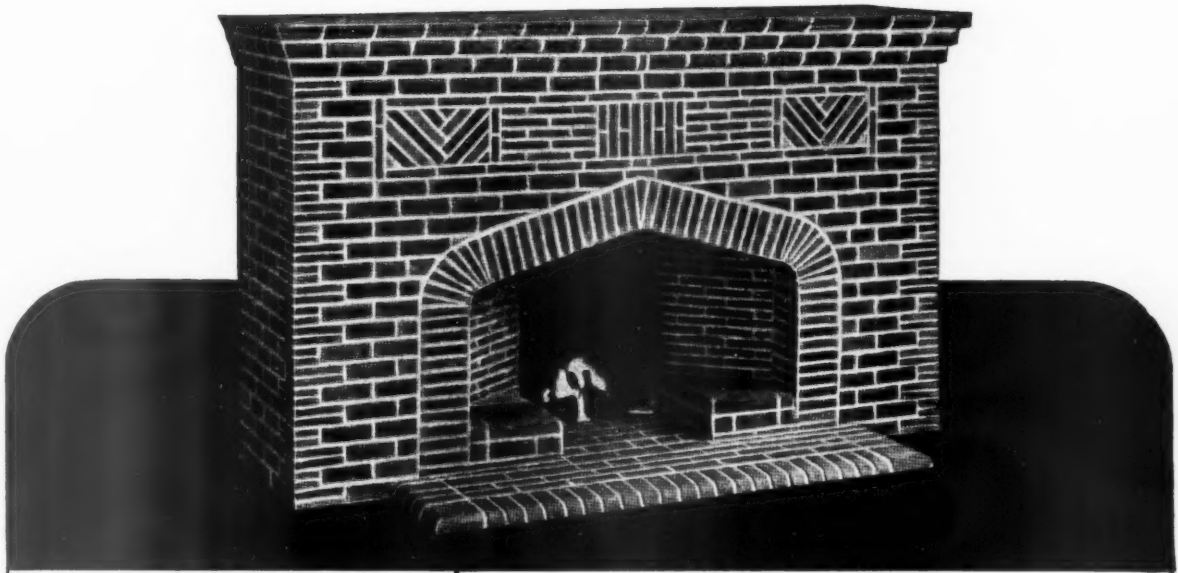
General surfaces	..	per yard super	-2
Wax polishing	..	per foot super	-4½
Body in and French polish on hardwood surfaces	per foot super	1/-	

Writing

Plain letters or figures, two coats, 2" to 12" letters	per dozen inches in height	1/10½
Ditto, shaded	per dozen inches in height	2/6
Plain gold, 2" to 12" letters	per dozen inches in height	2/6
Ditto, 12" to 24"	per dozen inches in height	3/9

Gilding**Single Gold****Double Gold**

Preparing and gilding in best oil gold	per foot super	5/3	8/4
Ditto in matt or burnished gold	per foot super	7/4	11/6
Preparing new plastered walls for papering	per piece (60 feet super)	1/4	1/5½
Pasting and hanging only.	per piece (60 feet super)	1/4	1/8
Common printed papers	per piece (60 feet super)	2/-	2/6



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TRADE NOTES

Shatter-Resisting Varnish

There are, of course, several manufacturers of shatter-resisting varnish, but it was news to me to learn that the Cementone people were amongst them. They have just sent me particulars of their material, and they deserve a special pat on the back because their leaflet puts the case for their varnishes honestly and without exaggeration, which is more than can be said of many of the manufacturers who for that reason have not been mentioned in these columns. It is time such people realized that technical people are not likely to be taken in by false claims but will merely be prejudiced against the firm issuing them. The general public, on the other hand, often are deceived, and I know one or two people who seem to think that having their windows treated has converted their room into a more or less bomb-proof shelter. Conduct on the part of manufacturers leading to this sort of thing is little short of a crime and should be stamped out.

It is pleasant, therefore, to read the modest and accurate statement by Freeman's both of the uses and of the limitations of these varnishes. The technique recommended is two coats brushed over adhesive tape applied so as to form squares or diamonds of not more than 3 in.-4 in. Shatter varnishes tend to harden in time and lose the flexibility which is their virtue. After six months, in the case of the Cementone varnish, therefore, a further

coat would be advisable. It is not necessary to remove the original coats, which automatically become a reinforcement to the glass. — (*Joseph Freeman, Sons & Co., Ltd., Cementone Works, Wandsworth, London, S.W.18.*)

More About Glass and A.R.P.

In my last notes I gave some details of oiled fabric and of transparent anti-shatter varnish. Here are two other useful materials.

The first is "Nuart," a fabric net with an adhesive backing which is simply wetted and stuck on the glass. It should provide a reasonable protection against the glass flying and can be easily fixed by the householder himself. The material will commend itself to all who object, with reason, to the unsightliness of the gummed strip technique, and it should, furthermore, prove itself to be altogether more efficient.

The same firm is now placing on the market a substitute to replace glass. This consists of a fabric framework rather like the ordinary net curtain covered with what appears to be a clear cellulose composition. It has great translucency and even some degree of transparency. It can be easily fixed to wooden frames, but presumably there is the same difficulty with metal windows as in the case of oiled fabric.

I have no details before me of cost, but samples are obtainable from the manufacturers. — (*A. and F. H. Parkes, Ltd., Beeston, Notts.*)

COMPETITION

Conditions of the competition, promoted by the Council of the Royal National Eisteddfod of Wales, for a standardized pavilion to seat 12,000 people, are now obtainable from the Secretary, Eisteddfod Office, Colwyn Bay. Assessors are: Messrs. Percy Thomas and T. Alwyn Lloyd, F.F.R.I.B.A. Premiums: £75 and £25.

THE BUILDINGS ILLUSTRATED

NURSERY SCHOOL, BREARLEY STREET, BIRMINGHAM (pages 189-191). Architect: W. T. Benslyn, F.R.I.B.A. General contractors were Maddocks and Walford. Sub-contractors and suppliers included: General Asphalte Co., Ltd., asphalt; Bidford-on-Avon Brick and Tile Co., Ltd., bricks; Wilfred Robbins, Ltd., structural steel; Dennis Ruabon, Ltd., heather brown quarry tiles; Permainite, Ltd., special roofings; Mundet Cork Products, Ltd., cork tiles; G. N. Haden and Sons, Ltd., central heating; H. Pratt, Ltd., electric wiring and plumbing; Pearce and Cutler, Ltd., sanitary fittings; Parker, Winder and Achurch, Ltd., ironmongery and door furniture; North of England School Furnishing Co., Ltd., folding windows; C. Trumper and Sons, Ltd., plaster; Carter & Co., Ltd., tile casing to columns; Kingfisher, Ltd., and Tan Sad Chair Co., 1931, Ltd., furniture; Hoskins and Sewell, Ltd., rest beds; Express Lift Co., Ltd., lifts (hand power).

"CELEBRATED DOORS"

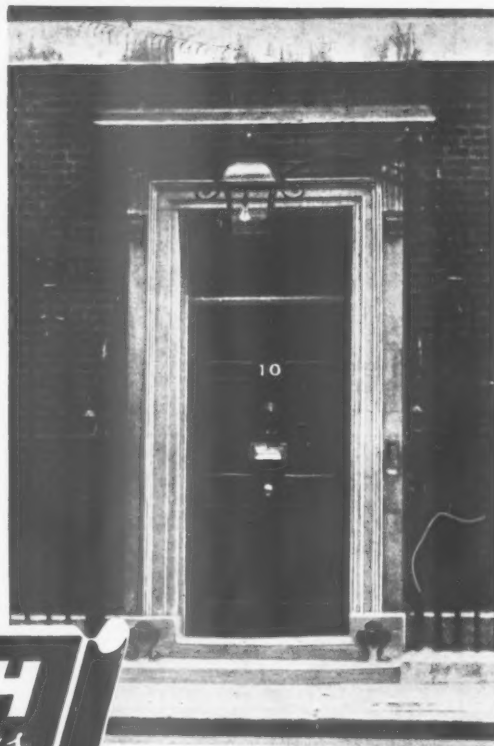
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