

Architect: E. S. Roberts, L.R.I.B.A. Contractor: Percy W. Cox, Handsworth, Birmingham.

Clifton Cinema, Perry Barr is constructed as are so many others with 'Phorpres' Bricks and faced with good-looking inexpensive 'Phorpres' Rustic Facing Bricks

BRICK COMPAN

HEAD OFFICE: AFRICA HOUSE, KINGSWAY, W.C.2. TEL. HOLBORN 8282 BIRMINGHAM DISTRICT OFFICE: PRUDENTIAL BLDGS., ST. PHILIP'S PLACE, BIRMINGHAM, 3. TEL: COLMORE 4142 SHEFFIELD DELIVERY DEPOT: L.N.E.R. GOODS STATION, TINSLEY. TEL: ATTERCLIFFE 41573 BRISTOL DEPOT: ASHLEY HILL GOODS DEPOT (G.W.R.), ASHLEY HILL. TEL: BRISTOL 46572

THE ARCHITECTS'



JOURNAL

THE ARCHITECTS' JOURNAL WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER, IS PUBLISHED EVERY THURSDAY BY THE ARCHITECTURAL PRESS (PUBLISHERS OF THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE) FROM 9 QUEEN ANNE'S GATE, WESTMINSTER, S.W.I

The annual subscription rates are as follows: by post in the united kingdom... $\pounds 1$ 3 10 by post to canada $\pounds 1$ 3 10 by post elsewhere abroad.... $\pounds 1$ 8 6 special combined rate for subscribers taking both the architectural review and the architects' journal: inland $\pounds 2$ 6s.; abroad $\pounds 2$ 10s. subscriptions may be booked at all newsagents

SINGLE COPIES, SIXPENCE; POST FREE, EIGHTPENCE. SPECIAL NUMBERS ARE INCLUDED IN SUBSCRIPTION; SINGLE COPIES, ONE SHILLING; POST FREE, IS. 3D. BACK NUMBERS MORE THAN TWELVE MONTHS OLD (WHEN AVAILABLE), DOUBLE PRICE.

SUBSCRIBERS CAN HAVE THEIR VOLUMES BOUND COMPLETE WITH INDEX, IN CLOTH CASES, AT A COST OF 10S. EACH. CARRIAGE IS. EXTRA

9-11 Queen Anne's Gate, Westminster, London, S.W.1.
TELEPHONE: WHITEHALL 9212-7 (OWN EXCHANGE)
TELEGRAPHIC ADDRESS: BUILDABLE, PARL., LONDON

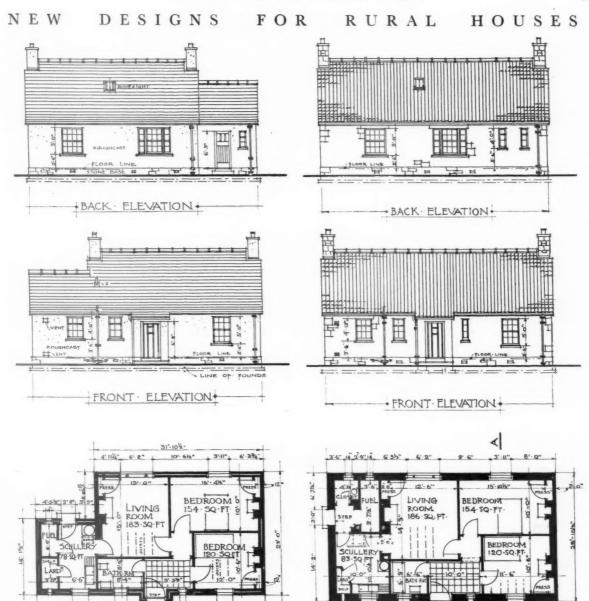
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, OCTOBER 13, 1938

NUMBER 2282: VOLUME 88

PRINCIPAL CONTENTS

	*			PAGE
This Week's Leading Article		* *		595
Notes and Topics Astragal's notes on current events		• •		596
News				598
Flats at Highgate, Highpoint Number T	wo. I	Designe	d by	
Tecton				601
Letters from Readers				608
Working Details		 Tolnerhai		609
(E. D. Lyons and L. Israel)		900011001	refroots	
Information Sheets			* *	611
House at Northwood, Middlesex. Desi	igned 1	by Ma	x R.	
Hofler				617
School at Hinckley, Heathfield, Leices	ter. I	esigne	d by	
E. G. Fowler				618
Periodicals—September Anthology				620
Law Reports			* *	622
Trade Notes		• •		623
The Week's Building News				625
Current Market Prices of Materials-1				626



RURAL housing in Scotland has been given impetus by a competition among Scottish architects for the most suitable design for farm-workers' dwellings. The competition, made possible by the generosity of Mr. G. H. Russell of Brechin and the co-operation of the Royal Incorporation of Architects in Scotland, has resulted in the publication by H.M. Stationery Office of full working plans of five designs of houses suitable for agricultural workers and persons of like economic condition. These plans may now be purchased by anyone desiring to build new houses for the agricultural population.

+PLAN+

The plans were drawn for single-storey and double-storey cottages ranging from three to five rooms. The designs which are available cover the following types of rural cottages: (1) Single-storey three-apartment cottage; (2) single-storey four-apartment cottage; (3) two-storey semi-detached cottage of three apartments; (4) two-storey semi-detached

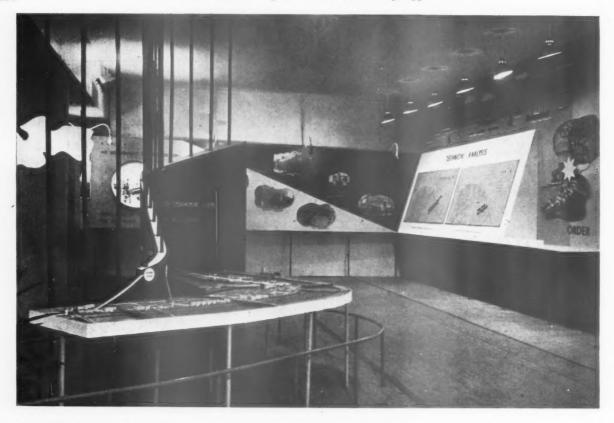
cottage of four apartments; (5) block of two four-apartment cottages.

+PLAN+

Alternative plans for the single-storey three- and fourapartment cottages have been prepared for use on sites where a gravitation water supply is not available. The block of two four-apartment cottages can readily be converted into one threeapartment and one five-apartment cottage if found necessary.

Copies of the working plans are purchasable from H.M. Stationery Office or through any bookseller. Price of each plan, 1s. Single plans, 1s. 3d. (post free). Complete set of plans, 7s. 6d. (post free).

Above, left, single-storey three-apartment cottage. Right, alternative scheme where a gravitation water supply is not available. Architects, James A. Tweedie and Patrick M. Thompson. See also pages 599–600.





THE SOUTH SIDE

Two photographs of the Exhibition of the "Star" scheme for the redevelopment of the South Side, now open at Charing Cross Underground Hall. The scheme covers the river front from Westminster to Blackfriars, and extends in depth to the Elephant and Castle; it was prepared by H. Spence-Sales and John Bland. The complete scheme was illustrated in the JOURNAL for May 5.

complete scheme was illustrated in the JOURNAL for May 5.
Early next year the London Society will hold a Conference on the development of the South Bank which will be attended by the L.C.C. and other local authorities and interested bodies. This scheme will be used as a basis for discussion.

discussion.

The Exhibition layout was designed by the authors of the scheme; a loud speaker describes the model and the scheme generally.



Architects, Review your Position

N March 24 this year the JOURNAL embarked on a new series of leading articles which dealt with the possible contribution of architects to what we are forced to call national planning.

From those articles there emerged, in the JOURNAL's opinion, two principal conclusions. The first was that a multitude of independent experts, as well as general opinion, had come to the conclusion that the problems of land utilization must be tackled on a far larger scale than hitherto if there was to be any hope of solving them. The second conclusion was that unless the profession took steps to see that its potential contribution to the study of such problems was both thoroughly understood and clearly placed before those charged with the preparation of the solutions, architects would find—to put the matter coarsely—that they had missed the boat again.

This was in March—to July.

At that time the coming of large-scale efforts to co-ordinate some of the more pressing problems of industry, agriculture, housing and road transport was obviously inevitable. But, allowing for democracy, apathy and vested interests, there did not seem much likelihood of a sudden advance on the planning front.

The position now, only four months later, is very different. In about twenty days considerations of defence have pushed forward the question of national

planning by about four years.

Consider just a few of these events. The Commissioner for Special Areas suggested a year ago that further population and industry might be *persuaded* not to come to London—with infinite delicacy. No one paid any attention. But in the crisis tentative arrangements were made, and are now being further considered, for moving bodily over two million people out of London. That is something like large-scale planning.

And that was the most dramatic single proposal, but others are equally important: air raid precautions,*

the renovation of harbours in the west, the redistribution of essential industries, the planning of new food depots and traffic routes. All of these demand and are receiving the attention of experts in *planning* on the largest possible scale.

Simultaneously and less directly dictated by strategic considerations are the Ministry of Labour's statement giving the results of an enquiry into the migration of labour during the past five years; the work of the Royal Commission on location of industry, which is still at work; and the researches being made by various independent bodies into the supply, distribution and present failings in organization of such widely different

commodities as water, milk and sugar beet.

In short, in about three weeks the whole country has realized that the present organization for living in Britain—the enormous gatherings into a few huge centres, the derelict areas, the waste and neglect of land—is not good enough for war. And it has simultaneously been found that a great part of the research necessary for a better organization has already been done, by individuals working to solve specific problems in their own industries. It has been found that it is skilled co-ordination of the knowledge and ability We do already available which is now needed. not suggest that that co-ordination is a purely architectural matter. We do suggest that its results will involve a whole new field of work (both in planning and building) for the architectural profession-if it cares to take up its responsibilities.

The scope of architects' contribution to national planning will be examined more closely by the JOURNAL later. What is most important now is that the profession should realize how vital it is to make that contribution and be prepared to make it soon.

Four months ago it was said in this paper :-

"The average man is beginning to realize, perhaps via Czechoslovakia, that agricultural land is as important as built-on land, that a field, though he may never see it, is as important for a hero as a home, a job and a bus service."

These words have come true, almost literally. In the meantime architects have not stirred as much as a finger.

^{*} One of the London Boroughs has just put the whole of its A.R.P. organization into the hands of a firm of architects.—(See page 596.)



The Architects' Journal
Westminster, S.W.I
Telephones: Whitehall
9 2 1 2 - 7
Telegrams
Buildable
Parl

NOTES

T O P I C

MORE A.R.P.

OW that Mr. Chamberlain's "Peace in Our Time" triumph seems to necessitate a redoubled programme of defence, it is still not too late for architects to make it understood that the provision of defences for the civil population is largely an architectural problem.

The organization of an adequate and efficient shelter system requires exactly the same process of investigation as architects are accustomed to apply to other planning problems—particularly town-planning and housing problems; analysis of densities and distribution of population, ease of transport in peak periods, special provision for young children and so on. To say nothing of the technical problems involved in the reinforcement of temporary shelter trenches and in the actual design and ventilation of shelters.

However, few opportunities have been given by local authorities to architects to show what they can do (nor, so far as I know, have the architects' own organizations done much to push their services forward).

I know of only one exception among local authorities; that is the Borough Council of Finsbury, the same Borough Council that has already earned a lot of credit for its patronage of modern architecture.

Now the Council's interest in modern architecture is in this case not merely a wish to be up to date. It is obvious that it knows exactly how modern architectural technique can be utilized as a public service, from the way it has turned to its architects to provide it with a completely worked out civil defence scheme—instead of leaving it to the perfunctory attention of a hard-worked Borough Engineer as other authorities have done.

Finsbury Council is taking its defence responsibilities and Warburg.

seriously, and, beginning with house-to-house research to get the exact data as to the population's needs and habitual movements, and continuing with aeroplane flights over the Borough to spot the weak places, it intends eventually to complete a scheme that really does protect the civil population, as much as a civil population can be protected.

All other authorities will look forward to learning what a complete scheme of protection is likely to cost (and incidentally to seeing the reactions of the Home Office when called on to pay their share).

MR. MUMFORD AND THE EMERGENCY

Those who have got two-thirds of the way through The Culture of Cities* in the last ten days must have felt admiration for Mumford the Prophet.

The Culture of Cities is not lucidly written and its rich prose is further adorned by words invented as the author needed them—fortunately, classical compounds: a sad affair for American business men.

But, just at the moment, his six stages of a city console one for all this. There are the village, the town, and the metropolis—all healthy these, all fulfilling a necessary cultural and economic function, all on the upgrade.

Then comes decline: megalopolis, the metropolis-gone-too-far, the capital which has gathered population, power and finance into itself until it has unbalanced the economic and cultural life of the whole country; tyrannopolis, where those in power at the centre try to perpetuate by force an unbalanced economy; and, finally, nekropolis—does this need explaining, after the last fortnight?

Visionary stuff . . . perhaps. But having certainly reached *megalopolis* in Britain already, we may be inclined to agree with Mr. Mumford that it would be a pity to go through the last two stages before trying to do something about it.

THE A.A.'S NEW PRINCIPAL

It was announced last Friday that Mr. G. A. Jellicoe had been appointed Principal of the A.A. School of Architecture.

Mr. Jellicoe is 38 years of age and a partner in the firm of Jellicoe, Page and Wilson. Educated at Cheltenham and the A.A., he has held the Bernard Webb Studentship at Rome, and been awarded the Neale Bursary. Of his buildings, the work for Lord Weymouth at Cheddar Gorge is particularly well known, and of his gardens, his work for the King (then Duke of York) at Windsor.

The new principal has at least two major qualifications for the post (a) Unlike other of our educationists whose lives, in the words of Dean Inge, have been unfortunately prolonged into this miserable time, while their thoughts hark back to some remote golden age in which a Prix de Rome was the blue riband of all professional seas, he

^{*}The Culture of Cities. By Lewis Mumford. London: Secker and Warburg. Price 21s.



al

ie

0

1-

d

ce

h

lt

h

or

d

le

er

re

n

is

d

ıg

of

m

m.

P

is

ar

is

ns

se

ts

le

ie

Mr. G. A. Jellicoe

belongs to Our Century. He can be relied upon, in other words, to understand what is going on in the minds of contemporary students when they talk like Patrick Geddes. It won't just make him angry.

(b) As one who has himself largely concentrated on the wider architectural problems of the landscape-into-regional sort he is unlikely to take the view, also popular with some of our professional leaders, that an architect is simply a person who puts up a house for a client. An architect doesn't always get a house to put up, and even from the business angle, it is worth the profession's while to widen the scope of its activities.

Taking the C.P.R.E. as an easy test of form, one would say that Mr. Jellicoe occupies a position somewhere pretty near Professor Stapledon and quite a long way off Lord Brocket.

C.P.R.E. GETS DOWN TO PLANNING

Today the Eleventh National Conference of the C.P.R.E. opens at Chester. Consider, in the light of the dignified if not always highly constructive past of this noble body, its present agenda.

There will be three important addresses, backed by resolutions. The first, "Agriculture and the Countryside," is by Professor Stapledon (of "The Land"). The resolution: "That this meeting, bearing in mind the fact that agricultural and rural Britain must be treated as a whole, urges that in providing facilities and amenities for the urban and rural population, any conflict between these two sections should be avoided." The second address, by H. G. Strauss, M.P., is on "The Approach to the Town," and the third, by Lord Justice Scott, is on National Planning.

We can be certain that Professor Stapledon will get right to the heart of the problem. To him, preservation of the countryside is synonymous with the planning of agriculture and its decontamination from urban blight. Agriculture, neglected in the interests of urban industries, should be considered first, not last.

Professor Stapledon is a realist, too, on the question of National Parks. He is for intensified agricultural developments, not merely natural reserves and mummified scenery, within park areas. This approach to preservation by way of land utilization is, as I have said before, the only way.

STREETS

The provision of "gazing-grounds"—or railed-off areas in which shoppers could loiter without obstructing the pavement—was among the suggestions put forward by Colonel Mervyn O'Gorman in his lecture last week on "Roads."

It was the first in a series of four talks on the planning of London to be delivered at the May Ward Settlement, Tavistock Place. In his vigorous appeal for a bold road plan, instead of the present "muddling-through" methods, Colonel O'Gorman drew particular attention to the need for more retilinear roundabouts—the surrounding buildings giving great opportunities to architects—and the necessity for avoiding building kiosks, conveniences, telephone boxes, etc., on central islands—a point overlooked in the recent Bressey report.

Other suggestions were the drastic reduction of minor road junctions, the provision of more and *smaller* car parks, possibly in closed-off streets, standardized street name-plates and house numbers, and the provision of bays for bus stops and delivery vans.

This series of lectures, sponsored by the Institute of Civil Engineers, promises to be of great interest to architects. The titles of the remaining three are: Buildings, Water Supply, and Sanitation.

HOW BRITAIN DOES IT

At the cost of many letters, telephone calls and endless persuasion, Headquarters had arranged that twelve young Argentine architects now visiting England should see a good deal of the modern architecture around London.

In particular, there was arranged for last Saturday afternoon a carefully dovetailed scramble over five buildings in Hampstead and Highgate.

Then, late on Friday, it was rumoured that revolution had broken out among the visitors.

Jaded go-betweens made enquiries; and learnt from Organizer No. 1 that the leader of the visitors had appeared at Headquarters and said: "Thank you very much for arranging this beautiful visit all today. But, please, what we really want to do is to go to the Arsenal football match."

ASTRAGAL

NEWS

POINTS FROM ISSUE THIS

"Finsbury Borough Council has appointed a private firm of architects to prepare all A.R.P. schemes for the borough"	596
Conditions under which assistants can be admitted to the Register of Registered Architects	598
An architectural student received £.1 salary for seven-and-a-half weeks' work	608
Competition Result	609

NEWS FROM PRAGUE

Below we print a letter, dated October 7, from an architect in private practice in Prague to a friend in London :-

" DEAR MR. -

"Many thanks for your letter! I am rarely sentimental, but this time, reading your words, I was really touched. It was like a shining meteor coming from the dark universe, which seems now to surround our country-a lost island in the plainless and mysterious world. I am now constantly meditating about the cause of all the disastrous events and about the psychology of our nation. There is no doubt, we all here were blind in a certain sense. to be Europeans, instead of being vain, expansive and selfish Tchecs, as probably our forefathers have been-in the medieval times, when the Tchec State reached from the Southern to the Northern sea, from

Bavaria till Russia.
"I think (maybe it's m mistake) that the cause of our blindness was a certain kind of belief in universalism, a belief in pan-European interests. This lack of realism lasts even now in the mind of our majority. Even after the Conference at Godesberg we all believed that the new frontiery shall be planned and delimited with objectivity, justice and good will. Only for this reason we didn't risk the isolated war and suicide. What a great illusion! Now we must assist with a deepest disappointment to the cunning invasion of enemies—even in the purely Tchec countries. What a fraud! People who were ready to fight are obliged now to read newspapers with eyes full of tears. Nevertheless, the life here in Prague continues its normal way. There are optimists, who invent plans for the future, who discuss the plan of the technical and industrial reconstruction in the new territory. Only if they could believe, that there will be left some territory for us, after the big gang shall finish its work.

"I really don't know, what we have still to expect in the future. Especially if I speak as architect. Perhaps, there will be later much to do here, but the questions of architecture and form are put off for a long time. As the old sentence said, 'Inter armis silent

THE ARCHITECTS' DIARY

Thursday, October 13

Thursday, October 13

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

A.A.S.T.A. At the Group Theotre Rooms, 9 Gt. Newport Street, W.C.2, "A.R.P." Speakers: Paul V. Mauger and John Pinckheard, 7 p.m. SCHEME FOR SOUTH BANK OF THE THAMES. Exhibition at Charing Cross Underground (Booking Hall) of models, plans and photographs of the "Star's" scheme. Until October 21.

INSTITUTE OF FUEL. At the Institution of Mechanical Engineers, Storey's Gate, S.W.1.

Presidential uddress, by Lieut. Col. J. Green), 2.30 p.m. Annual Dinner and Dance at the Connaught Rooms, W.C.2, 7.15 p.m.

C.P.R.F. At Chester. Eleventh National Conference, Until October 16.

R.I.B.A., 66 Portland Place, W.1. "Small House" Exhibition. To be orened by Miss Ellen Wilkinson, M.P., and Mr. J. B. Priestley. The Erhibition will remain open until October 29.

Friday, October 14

riday, October 14

Institution of Sanitary Engineers. At Caston Hall, Caston Street, S.W.1, "Sanitary Work in Lurge Buildings," By W. C. Easdale and D. Easdale. 6.30 p.m.

HOUSING CENTRE. Dance at the Suffolk Galleries, Suffolk Street, S.W. 8.30 p.m. till 12. Tickets 3s. (including light refreshments). Institution of Michanical Exgineers, Storey's Gale, S.W.1, "Coal Cillization Research: Co-operation hetween Producers, Users and Appliance Makers," By J. G. Bennett, 6.30 p.m.

LONION SOCIETY, Visit to the New Town Hall, Stoke Newington, N.16, 3 p.m.

Tuesday, October 18

HOUSING CENTRE, 13 Suffolk Street, S.W.I. Tuesday lunches: "Garden Cities' Association." By Major Hardy-Syms, 1 p.m.

Wednesday, October 19

**Yednessay, October 19
**Ecclestological Society, 6 Queen Square, W.C.1 "The Abbey Church of Bury St. Edmunds." By C. E. Power, 8 p.m.
**WORSHIPFEL COMPANY OF CARPENTERS, Carpenters' Hall, E.C. "Woodwork in St. Paul's Cathedral." By W. Godfrey Allen, 7,30 p.m.
**L.G.O. CENTRAL SCHOOL OF ARTS AND CRAFTS. "Egyptian Architecture: Temples, Obelisks and Dwellings." By Sir Banister Fletcher, 6 p.m.

"Yesterday I saw photographs of a new work of F. L. Wright in America. derful house, with striking technical refinements. What a happy country, where all the technical sorcery can go on in quiescence and develop towards beauty.

"I thank you again for your cordial letter—I shall never forget it. With best wishes from my wife and from me.

Sincerely yours,

THE ARCHITECTS REGISTRATION COUNCIL

At the last meeting of the Architects Registration Council the draft Regulations to give effect to the 1938 Act were approved for submission to the Privy Council as from January 1 next. The admission fee and annual retention fee have been fixed at 10s. until the end of 1940, after which the fees will revert to 6s. 8d., as at present.

The Council has exercised its power under Section 6 (1) (d) of the 1931 Act, to provide an additional qualification for registration, viz. in this instance in favour of architectural assistants. It is proposed that a person shall be eligible for registration who applies before August 1, 1940, and on August 1, 1938, was an architectural assistant, and at that date had been engaged in the study of architecture and the execution of architectural work in the United Kingdom for at least seven years. The Council has settled the necessary forms of application. We are informed that the Council will not be in a position to consider any applications

until the Regulations thus approved have been submitted to and approved by the Privy Council. It is not known how long this will take, but presumably at least, a month from their receipt by the Privy

TIMBER SHOW HOUSE SOLD

The two-storey specimen timber house, specially built as the Timber Development Association's exhibit at the Bath and West Show, has now been sold and is to be re-erected as a permanent residence. The purchaser, Mr. H. J. Singleton, states that the house is to be re-erected at Coppits Hill, near Yeovil, Somerset.

SCHOLARSHIPS

Fourth and fifth year students in architecture are invited to apply for a grant to be awarded by the Trustees for post-graduate research by study or travel in ancient or modern cities. The amount of the grant will be awarded according to the programme or studies to be undertaken, but will not normally exceed £250 in the 12 months commencing September, 1938.

Applicants must be under 21 years of age, and must have been born within the County of York, their respective parents or one of them being Yorkshire native of Leeds or one who has studied or lived in the City in all cases to have preference. Applications should be made in the candidates' own handwriting to W. H. Clarke & Co., Solicitors, 12 South Parade, Leeds, 1, before October 30.

SIR JOHN SOANE'S MUSEUM

The above Museum (13 Lincoln's Inn Fields, W.C.2) will be open free on Thursdays and Fridays of this month between the hours of 10.30 a.m. and 5 p.m., and on the same days during November, between the hours of 10.30 a.m. and 4 p.m.

PRESERVATION OF THE PENNINES

The Minister of Health has approved a resolution to prepare a planning scheme for nearly 300,000 acres embracing the Skipton Urban District, the Sedbergh and Settle Rural Districts and a large part of the Skipton Rural District. This extensive area contains a most beautiful stretch of country including Malham Cove and country including Malham Cove and Sedbergh and links up with other areas already under planning control. Hence-forth it will be possible to safeguard the amenities over this characteristic piece of Pennine scenery.

HOUSING CENTRE

The Housing Centre is organizing a Ballet Première at Sadler's Wells next February, and, in order to raise funds to pay for the expenses, is to hold a dance at the Suffolk Galleries, S.W.I, tomorrow, from 8.30 p.m. to midnight. Tickets may be obtained from Miss A. M. S. Wilson, I Grosvenor Place, S.W.I. (Price, 5s. each, including light refreshments) including light refreshments.)

ON THE AIR

Getting and Spending the Rates.-The talk on November 2 at 7.45 p.m. in this series which is being broadcast in the Welsh programme deals with "Houses." Stanley Parris is the compère, and various speakers will discuss : The general position of housing-pre-war; the Council housing estates; unfit houses; demolition and clearance areas; improvement schemes; slum clearances;

FRONT ELEVATION

have the long st, a Privy

ouse. nent West be The

that Hill,

rchito be uate t or rant nme not nths age. ts or a d or have nade g to outh

1

Inn onth

.m.,

ber, p.m.

NES

oved

eme the

and

nsive h of

and

areas the

g a next

ds to ce at

row.

may ilson,

each.

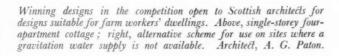
lk on

vhich mme is the

cuss :

war : uses ;

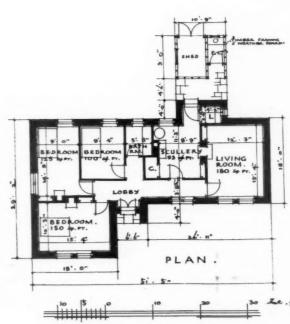
rove the



17' . 0"



FRONT ELEVATION .



problem of rural housing; community centres and new housing estates; municipal, occupier and landlord ownership; private building and planning; and direct and contract labour.

PLAN.

Build Us a City.—On October 31 at 9.10 p.m. in the Midland programme there will be an historical and industrial feature to celebrate Birmingham's Charter Centenary. The producer is Robin Whit-worth, who has collaborated with three local worth, who has collaborated with three local writers—Leslie Daw, F. W. Bradnock, and Bernard Coaling. "Build Us a City" will be in four parts—(1) Industrial history; (2) a sound picture of Birmingham's industries today; (3) Transport, distribution and export of Birmingham's multifarious products; and (4) the more human and products; and (4) the more human and personal side of the city's life.

CATHEDRAL FOR CAVAN

Work is shortly to be begun on the building of the new Cathedral at Cavan. The Cathedral will seat 2,000 persons, and it is expected that it will take three years to complete.

A.R.P.

A conference on structural air raid precautions, held under the auspices of the R.I.B.A., and the Liverpool Architectural Society, was held in Liverpool last week. Alderman J. G. Paris, chairman of the Air Raid Precautions Committee of Liverpool presided. He emphasized the first

pool, presided. He emphasized the fact that despite the settlement of the inter-

national crisis there must be no abatement in protective precautions. The Liverpool committee, he said, had examined some 200 buildings in the city with a view to ascertaining if shelters could be provided in the basements, and although the results had been rather disappointing, as many of the buildings were old and unsuitable for the purpose, progress was being made. Some owners of property had come forward and offered their cellars, but they had made a proviso that their staffs were to have the first chance of using them.

Papers were read by Messrs. Thomas E.
Scott and Eric L. Bird.

THE SHREWSBURY COMPETITION

The last date for submission of designs in the competition for the "Broom Hall" Senior School, Shrewsbury, has been extended to January 30.

COMPETITION RESULT

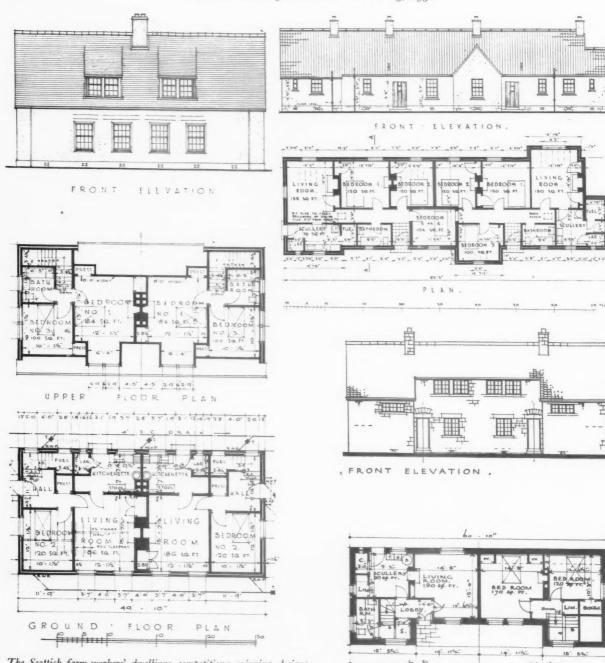
Mr. John C. Procter, F.R.I.B.A., the Mr. John C. Procter, F.R.I.B.A., the assessor of the competition for new council offices for the Adwick-le-Street U.D.C., has awarded the first prize (£50) to Messrs. Shapley and Davison, of 22 Queen Square, Leeds. The competition was limited to architects practising in the West Riding. The estimated cost of the scheme is £16,000. The designs placed second and third were submitted by the following: 2nd—Messrs.
Gribbon Foggitt and Brown, of 3 Park Place,
Leeds. 3rd—Mr. Norval R. Paxton, of
Prudential Buildings, Park Row, Leeds.

EXHIBITIONS

[By D. COSENS]

FOR a long time Graham Sutherland's work has stood out as far above the average in the mixed collections in which it has usually the mixed collections in which it has usually been shown. Now, with his excellently hung exhibition at Rosenberg and Helft's, he suddenly establishes himself as an artist of very great promise. His interpretation of landscape is personal and fits into no particular category, conveying the painter's mood and his reactions more directly than the actual qualities of his subject. His sure colour sense and his expression of form in terms of colour could in time become a terms of colour could in time become a dangerous pitfall for a less intelligent painter, but such works as "Fallen Trees by a River" (1) and "Black Landscape" (18) reveal an imagination and an understanding that will not easily accept a formula. This exhibition has been extended for a further week and should interest those who ask, usually with the implication that they can be up to no good, what our younger painters are doing.

Ethelbert White's painting is essentially that of the English school which, in direct succession to Cotman, has remained aloof from foreign influences, interpreting landscape with simple directness and clear definition. He is well known as a poster designer and wood engraver, and much of his best work has been in water colour. This, with



The Scottish farm-workers' dwellings competition: winning designs. Above, two-storey semi-detached cottage of four apartments. Architect, Samuel McColl. Right, top, block of two single-storey, four-apartment cottages. Architects, James A. Tweedie and Patrick M. Thompson. Right, two-storey semi-detached cottage of three apartments. Architect, A. G. Paton.



GROUND FLOOR PLAN.

its clear line and fresh treatment, has been particularly successful. His paintings at the Lefevre Galleries show continued exploration within the limits he has chosen. "The Glade" (16) and "Winter Woods" (33) are both excellent paintings of the trees, and the patterns of trees and their shadows, that he understands so well. But in "October Woodland" (20) he has abstracted from this knowledge and understanding a painting which in its simplification and grasp of essentials is by far the finest thing he has done.

Brynhild Parker, who is showing her work at the same gallery, has distinct decorative talent. That she has also the capacity to develop far beyond the flat decorative treatment she affects is evident in such paintings as "London Interior" (2) and "Entrance to the Port" (13), in which a sincere and successful attempt has been made to convey atmosphere as well as design. With a little sacrifice of the immediately charming for a more ruthless search of which the artist is clearly capable, fixed mannerisms might yet be avoided. Some of

the nicest things are her drawings in the hall.

UPPER FLOOR PLAN.

Recent Works by Graham Sutherland Rosenberg and Helft, 31 Bruton Street. Until October 15.

Recent Paintings by Ethelbert White and by Brynhild Parker. Lefevre Galleries, 1a King Street, St. James's. Until October 22.

FLATS AT HIGHGATE: HIGHPOINT NUMBER TWO





DESIGNED BY TECTON

GENERAL AND SITE—The new block has been built on a site adjacent to Highpoint No. 1. The layout is completed by the addition of a row of garages which are accessible from a service road outside the grounds, and which serve to close the garden on the south-east side (see layout plan overleaf.) The gardens of the two blocks have been thrown into one; and another tennis court has been added, making three in all. A swim-

ming pool with a children's paddling pool and cascade have been built in the extreme southeast corner of the site.

problem was to create an exterior that should harmonize with the earlier block of flats on the adjoining site. Although it was forbidden by the local Council to make the two façades continuous, a relationship is established by repeating the viignment and size of the windows, by lining through the height of the blocks and by using the same colours and materials. Owing to the higher cost of land a different type of flat is provided, one with considerably more accommodation in each flat, provided on two floors linked by a private staircase.

the

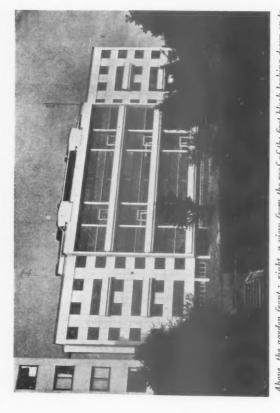
ind

and ries, ntil starcase.

Above, two views of the entrance front; right, the two blocks, from the end of their common garden; the new block is shown on the right of the illustration.









SITE PLAN (THE NEW BLOCK IS SHOWN IN TOP LEFT-HAND, CORNER)

SITE PLAN (THE NEW BLOCK IS SHOWN IN TOP LEFT-HAND CORNER)

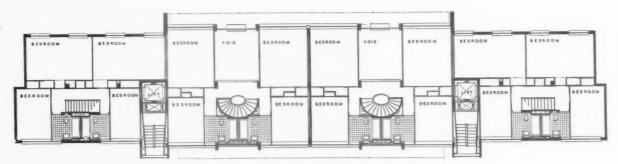
with white cement pointing built in the form of a cavity wall. Below, a night view of the entrance showing the freely planned curving canopy beneath which the drive passes, supported by two caryatid figures. Left, the entrance from outside; the figures it was possible to face the concrete external walls of either wing with cream-coloured glazed titles. These have been divided into panels with wide cement joints between In the centre block the structural framework is painted with a white practicable, however, to construct the centre block on this system owing to the the floor slabs. The lift-wells and stairs are constructed independently as concrete in order to give scale to the elevations and to facilitate resurfacing should this be cement paint and the panels are filled in with black Staffordshire engineering bricks CONSTRUCTION AND EXTERNAL FINISHES—The two end wings of the building are constructed on the same system that was used in the first block; monolithic external bearing walls (insulated with cork on the inside) and a central spine of columns and beams carrying the floors, all of reinforced concrete. It was not double-height rooms and their large windows: so a frame system has been adopted, with reinforced concrete beams and columns and the exterior walls supported on ground floor subdivisions and the pent-house on the roaf are structurally independent. As more money was available for the facing of this building than for the first block, are cast in white concrete from plaster casts obtained from the British Museum. towers and are separated from the end and centre blocks by a 2-in. cavity. necessary.



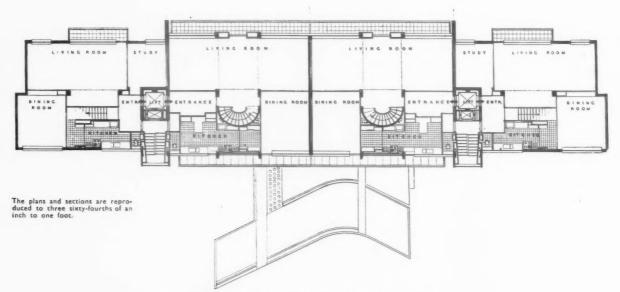


THE ARCHITECTS' JOURNAL for October 13, 1938

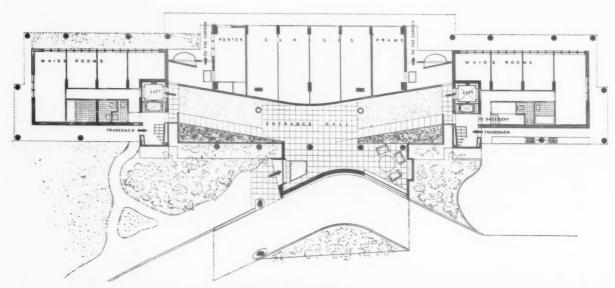
FLATS AT HIGHGATE: HIGHPOINT NUMBER



SECOND, FOURTH AND SIXTH FLOOR PLAN



FIRST, THIRD AND FIFTH FLOOR PLAN



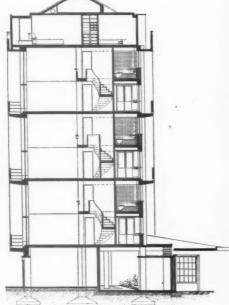
GROUND FLOOR PLAN

TWO: DESIGNED BY TECTON

PLAN—The planning provides for two different types of flat, one with the maximum number of rooms for the use of large families, and the other with the number of rooms sacrificed to the size and importance of the main living-room. The latter type, occupying the centre block, is on the duplex principle, each flat having two floors connected by an internal staircase, but with the large living-room rising the full height. This provides a central reception space with imposing scale and takes full advantage of the view over the garden to Hampstead Heath. This view is framed in a window 16 ft. high by 10 ft. wide. The wings on either side of this central block are occupied by maisonette flats, also with an internal staircase. The ground floor contains maids' rooms. A penthouse flat is built on the central portion of the ground floor, it was possible to treat the entrance in a very free manner. An outer vestibule of asymmetrical plan is first reached from the entrance canopy. From this the main hall is reached, which consists of a symmetrical pair of ramps leading to the two lifts. In order to create as spacious an effect as possible, the planting in the garden beds outside is carried through the large plate glass windows into the sunk flower boxes in the entrance hall. In this way the volume of the hall is extended in effect into the garden outside. The service quarters of the flats have been planned to be entirely selfcontained and separate from the reception rooms. Right, one of the tall glass brick windows of the service stairs; and the pergola on one side of the swimming pool.

ER



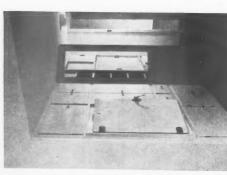


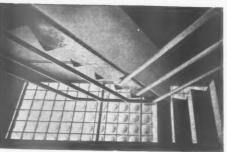












Above, the terrace of the swimming pool at the end of the garden, looking towards the fountain; left, top, a kitchen from the service entrance showing the long window over the sink and the double doors partially closed: left, the service staircase and a detail of the built-in cupboards, folding work-table and refrigerator.

There are eight main vertical ducts which

SERVICES—Ducks have been provided for all services. There are eight main vertical ducks which carry all the pipes for hot and cold water supply, heating, electricity, refrigerator connections, drainage, rain water, etc. No pipes or equipment show in the building either inside or outside. All the meters and control values are grouped in panels on the landings where they may be inspected without entering the flats. There is a central motor for the refrigerators in the basement. Hot water and heating are relayed from the boiltr chamber of Highpoint No. 1. There is a radio aerial on the roof with connection to every flat by means of plugs in the living-rooms. A special system of lift access has been adopted. From the entrance hall ramps lead up to one lift on either side. Inside the lift, there are two rows of push buttons, one at each end of the lift, which has two entrances. Each push button corresponds to one flat, and has the tenant's name adjacent: when pushed, it operates the lift and simultaneously sounds a buzzer in the flat. The door will be opened from the lift with their latch key. When vacated, the lift returns automatically to the ground floor. A special system of insulation ensures that noises and wibration from the lifts are not transmitted to the flats. For service purposes, there is a small lift (to hold two persons) which is housed in the same well as the passenger lift and serves on to a landing which is shared between two flats.

doors partially closed: left, the service staircase and a detail of the built-in cubboards, folding work-

There is a staircase in conjunction with the service lift which is also accessible from the main entrance of each flat in case of necessity.

Right, one of the two-storey living rooms in the duplex flats, taken from the staircase gallery : below, the entrance hall ; below, right, the garages.

The general contractors were J. L. Keir and Co., Ltd. For list of sub-contractors, see page 625.







LETTERS

R. W. SAMPSON A DISGUSTED STUDENT

FROM READERS

A. W. BARR (Secretary, Association of Architects, Surveyors and Technical Assistants.)

Professor Reilly Speaking

SIR,—I am pleased to see Mr. Maxwell Aylwin's letter on Professor Reilly's Ideal Home for the Architect. Nobody wants to be rude to anyone who has done so much in the past for the training of young architects, otherwise one might refer to Professor Reilly's second youth as his second something else.

One can imagine the Professor's horror in the old days of the box-kite architecture set in an English land-

scape.

I don't know what nationality Mr. Chermayeff is, or Mr. Ionides either for that matter, but the Greek name seems to have more respect for tradition than the Russian one; but why either should be set up as an example for Englishmen to follow can possibly only be accounted for because the Professor is Irish.

Hidebound tradition is inexcusable in an architect, and we must move with the times and take advantage of new methods and inventions that are good, no matter what their source, but as you show in the frontispiece in the JOURNAL for September 29 the amalgamation may have horrible results.

Familiarity is said to breed contempt, but is that so with architecture? The traditional Cotswolds house fits the Cotswolds as nothing else can to most people. The Queen Anne house fits London as few other things do-it will take centuries to accustom us to look upon the Shell-Mex House with the same feeling of reverence as we look on St. Paul's. If the green things in Nature suddenly turned red we should be horrified-no doubt we should get used to them in time, but we shouldn't like it and it is the same with our houses; let them grow gradually from one phase to another as in the past and we shall all be happy, but don't let professors or any other eminent people stampede us into trying to change the face of Nature with a horrible jerk, as Prof. Reilly seems to want us to.

R. W. SAMPSON

Salaries

SIR,—A recent advertisement in THE ARCHITECTS' JOURNAL for a third or fourth year student as temporary assistant at £2-£3 a week prompts me to write this letter.

It is part of the training of the provincial school of architecture at which

I am a student that you have to do a total of six months' office work during vacations. The idea is very sensible, but the architects seem to regard it as an excuse for employing assistants who, at any rate after two years at the school, have sufficient knowledge to be of real use to the office for practically no wages. One student went into an office where there were seven other assistants, and for seven and n half weeks he received a total of £1, and he had to buy his lunch each day. A girl student went up to London and was in a well-known architect's office for eight weeks at 10s. a week, whilst the office boy received three times that amount. Her travelling expenses to London and back alone were 50s., and she had to travel across London each day. Another student had his expenses paid. Apparently nobody received more than 15s. a week.

The excuse made by architects is

The excuse made by architects is invariably that the student is receiving experience. I have never yet heard of an architect accepting a student when he had no work for him, and on that account they should pay us a

reasonable wage.

A DISGUSTED STUDENT

R.I.B.A. Elections

SIR,—" Salaried's " letter raises some important points. The A.A.S.T.A. nominated two Associates and one Licentiate for the last R.I.B.A. elections, and supported a third Associate who had already been nominated by others. These men were nominated solely because we believed they understand and sympathize with the problems of salaried architects (two of them are not indeed members of the Association). Unfortunately, a number of other salaried architects were nominated, thus splitting the vote, with the result that only one of the former group was elected (Professor Holford) and several of the group sponsored by certain principals.

If "Salaried" examined the nomina-

If "Salaried" examined the nomination lists at the time, he would have found that of the ten nominees in this latter group, nine were principals in official offices, while one only was an assistant. He would also have found that the whole of this group were nominated by one man, the principal of a large county department, supported by a group of his assistants, who naturally would hardly have refused his request for signatures.

The kind of incident recounted by "Salaried" is only too common in official offices. We heard recently of another case where a request was submitted to a county architect concerning the arrangement of the drawing offices, signed by practically the whole staff, over 120 assistants. This request, which affected the working conditions of the staff very vitally, but those of their principal not at all, was described by him as an attempt to dictate to the council!

The Association has always held that the interests of all salaried architects, whether principals or assistants, are identical. Unfortunately, however, we have to reckon with the fact that many principals, far from sharing this view, identify themselves with the principals in private practice, whose position is fundamentally different for economic

reasons.

In these circumstances the only remedy is to try to secure the election to the Council of men who will interpret the views and interests of the majority of the profession. We hope that the lesson of this year's elections will have been learnt, and that in 1939 all those who want to see the R.I.B.A. a more democratic body will get together and agree on a list of nominations which will give them a better chance of success than they had this year.

With regard to the day-to-day affairs of assistants, there is no alternative to organization, if the tendency of so many principals to employ the Roman method, divide and rule, is to be effectively met. If "Salaried" has not already done so, we would ask him to read the charter recently published by the Association, which sets out suggestions for the organization of official departments, and which can be put into effect in exact proportion as assistants are willing to work for its adoption. We shall be pleased to send him a copy if he will write to the Secretary, A.A.S.T.A., 113 High Holborn, London, W.C.1.

A. W. BARR, Secretary, A.A.S.T.A.

R . I . B . A . EXAMINATIONS

The following are the dates on which the forthcoming examinations will be held:

Final Examination.—November 30, December 1, 2, 3, 5, 6 and 8, 1938. (Last day for applications, October 28, 1938.)

Special Final Examination.—November 30, December 1, 2, 3, 5 and 6, 1938. (Last day for applications, October 28, 1938.)

by in of was oning ole est, ons of ped the hat cts, are we any ew, oals is is mic only the vho ests We ar's who ore and nich of airs tive f so nan be has ask ntly nich tion can tion for d to the Hol-

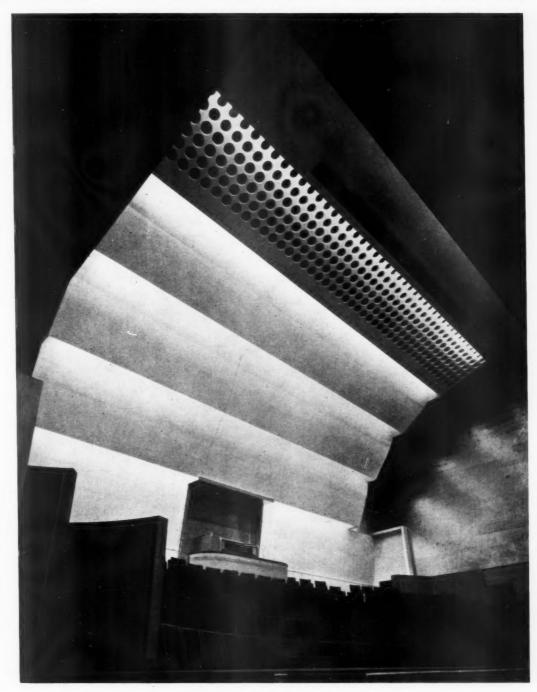
4.

the

30,

WORKING DETAILS: 691

ACOUSTIC PROSCENIUM HOOD . CIVIC HALLS, WOLVERHAMPTON . E. D. LYONS AND L. ISRAEL



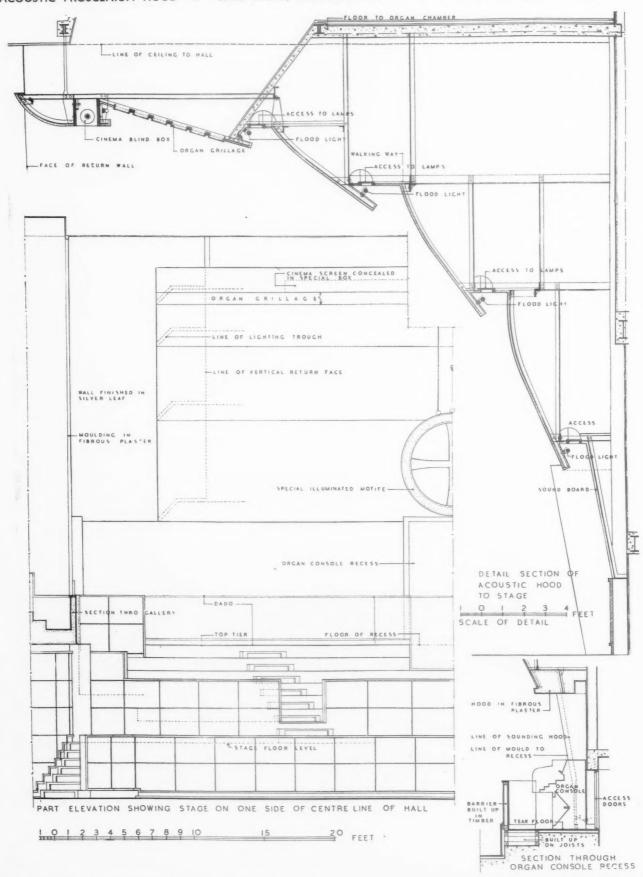
The acoustic hood is in the larger of the two Civic Halls, over the orchestra stage. This hall is equipped with an organ, and is used by choral and musical societies and for important social functions.

The hood consists of a series of plaster facets set at varying angles for the amplification of sound from the orchestra stage. It is constructed of plaster on expanded metal on steel framing, and is painted white, matt finish. At the top of the hood one of the plaster facets is pierced with circular holes for the organ grillage, and in front of this is a recess containing a cinema screen which can be lowered when required. required.

Details are shown overleaf.

WORKING DETAILS: 692

ACOUSTIC PROSCENIUM HOOD . CIVIC HALLS, WOLVERHAMPTON . E. D. LYONS AND L. ISRAEL



The Architects' Journal Library of Planned Information

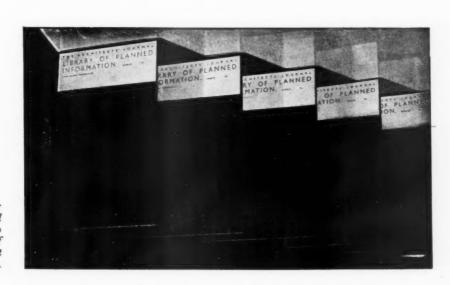
SUPPLEMENT



SHEETS IN THIS ISSUE

669 Aluminium

670 Metal Trim



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

Sheets issued since Index:

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

- 661 : Aluminium
- 662 : Sound Resistance
- 663 : Building Equipment
- 664 : Sheet Lead Work
- 665 : Building Equipment
- 666 : Sound Insulation
- 667 : A.R.P.
- 668 : Aerodromes



166

OF PLANNED INFORMATION THE ARCHITECTS' JOURNAL LIBRARY TYPICAL METHODS OF ANCHORING COMMON TYPES OF CAST AND SHEET ALUMINIUM WINDOW SPANDRELS Extruded, cast, or plate or sheet aluminium sills are shown fitted to most of the examples given. A simple and economical method (B) A common (C) A method of securing a cost or sheet spandrel method by which of combining a cast slotted holes in cluminum spandre with fixed window anchors allow when the spandrel beam & wall are of for spandrel beam reinforced concrete variations & permit accurate filting. The spandrel and Extruded aluminium! Beam clamp is anchoring lugs are sill welded to leg of window frame fixed first, and placed and secured spandrel may be inside the concrete placed after jambs form work, or may Cast-on luq and built-in anchor. are erected be made to act as part of the form of cast spandrels of normal size, 3/16". The extruded aluminium sill Allowance should should be notched. Aluminium be made for expanand the top lugs in the large sizes Continuous metal Continuous Tsupporting bar Continuous built-in screwed to window support, built-in at ends. frame Slotted angle and SECTION SEC gusset anchors SECTION TION Anchoring straps + PLAN PLAN PLAN (F) A large decor-Spandrel without (E) A commonly used type of ative spanarel with cial anchors Head rests upon anchorage when an open grille at spandrel beams the centre to or may be screwed are of concrete & wall of brick etc permit entry of air through the to window lintel side flanges built into masonry cháses Bolts are located concealed radiator Temporary support & placea before unit Screw support L.K. is obtained at the concrete is poured. head lintel. Eat the masonry work prosheet trunking of ceeds, or spandrel Slotted holes in the radiator inlet down into chases anchoring lugs aller masonry reaches sill allow latitudinal Fresh air inlet adjustment for bolts that have Space between Sills and heads up to 7" wide max unavoidably spanarel & heaten casing is filled with insulation moved out of true may be cost integ position. milly with spandrel Double hung Steel window Continuous lintel sashes. lintel support supporting member Spand-els havina Webbed anchoring ecial desia features should be lug, slotted for SECTION SECTION SECTION . Heater casing PLAN PLAN. Insulation Chase PLAN Information from the Northern Aluminium Company Limited.

INFORMATION SHEET: ALUMINIUM: Nº7: WINDOW SPANDRELS AND SILLS SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WCI. CHE. 22 B.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

INFORMATION SHEET

· 669 ·

ALUMINIUM

General:

This is the seventh of a series of Sheets dealing with the architectural uses of aluminium, and illustrates typical methods of constructing and fixing cast and sheet aluminium window spandrels. Metal panels of this kind are used as connecting links between vertical rows of windows, or as ornamental head, cill or side panels to a tall light, entrance door, etc. They may be used also as horizontal links between windows.

Form and Design:

The choice between cast and sheet form is made according to the size and design of the panel—cast work is normally up to 4 ft. wide by 5 ft. long with a maximum of 8 ft. by 6 ft. and can be made to almost any design and finish. Sheet aluminium spandrels, although not susceptible to the same intricacy of line, sharpness of detail or variety of finishes, possess the same weathering and nonstaining properties; simple forming should be adhered to, however, and although there are no pattern costs, welding and tool costs may be involved in their fabrication.

Aluminium spandrels materially reduce problems of erection and dead load on the structural framework of the building, they are readily accommodated, owing to the good malleability of aluminium, and at the same time permit reduction of wall thickness to the minimum allowed by the particular local authorities.

Sharp angles should always be avoided at intersections of faces by the use of fillets; back stiffening, ribs and anchor brackets should preferably not be the full height of the spandrel. Rapid changes in thickness of section should also be avoided.

Cills :

Heads and cills are sometimes narrow enough to be cast or formed integrally with the spandrel. Greater widths than 7 ins. overall, however, are necessarily made separate. Sheet or plate cills should be of small forming and simple design, but cast cills may be of any width and may incorporate any special design features. Extruded cills are

available in several stock designs and widths, to any desired length.

Protection:

Aluminium spandrels and cills do not normally require protection against weathering except in locations having highly corrosive atmospheres, where anodising is advisable. During erection, however, they should in all cases be protected against splashes of cement, plaster, etc., by means of a readily removable solution, such as a suitable wax or grease, heated or thinned for easy application, the type depending on the surface to be treated.

Finish:

A variety of finishes is obtainable by means of sand-blasting, scratch brushing, high-lighting or anodising. The type of alloy used, however, when retreated assumes a uniform grey appearance under weathering which remains unchanged over long periods. Painted aluminium spandrels and cills will ensure long life of the paint film owing to their resistance to the spread of corrosion.

Insulation

When aluminium is used in contact with such metals as copper, brass, bronze, iron, steel and lead, electrolytic corrosion of the aluminium occurs in the presence of moisture unless proper insulation is interposed to break the electrical contact or access of moisture thereto is prevented. A heavy coating of bituminous paint is a suitable method. Drainage from copper, bronze or nickel surfaces over aluminium, causing galvanic action, must also be avoided, and this may be done by using aluminium casement sections and flashings above the spandrels. If steel anchors are used for the spandrels these also must be protected, when direct contact occurs, by the application of a coat of red lead or a lead chromate primer followed by two coats of aluminium paint. The fastening bolts should likewise be similarly protected if not of aluminium. An alternative to paint coatings, when contacts are only occasional, is the use of thin fibre separating washers or strips. The backs and inaccessible washers or strips. portions of spandrels, etc., particularly in thinner sections, require permanent protection in the form of back painting and this also applies to aluminium anchors.

Previous Sheets:

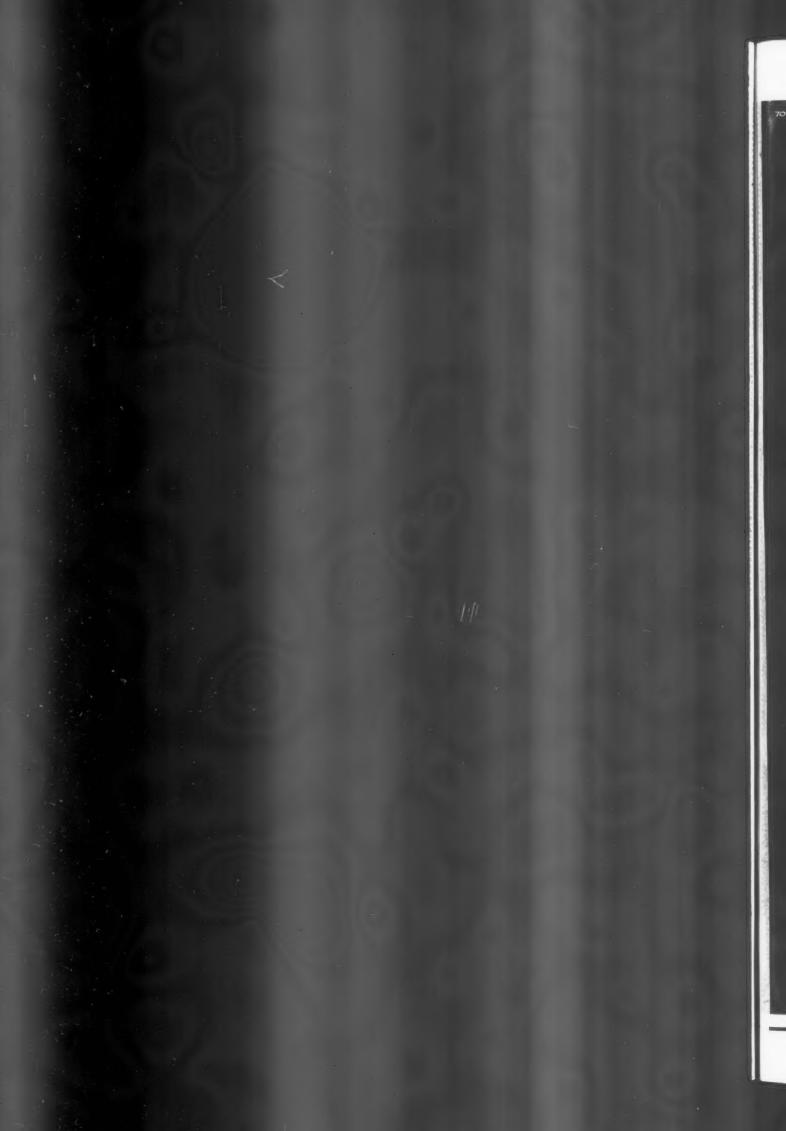
The previous Sheets of this series dealing with the architectural uses of aluminium are Nos. 492, 501, 504, 505, 510 and 661.

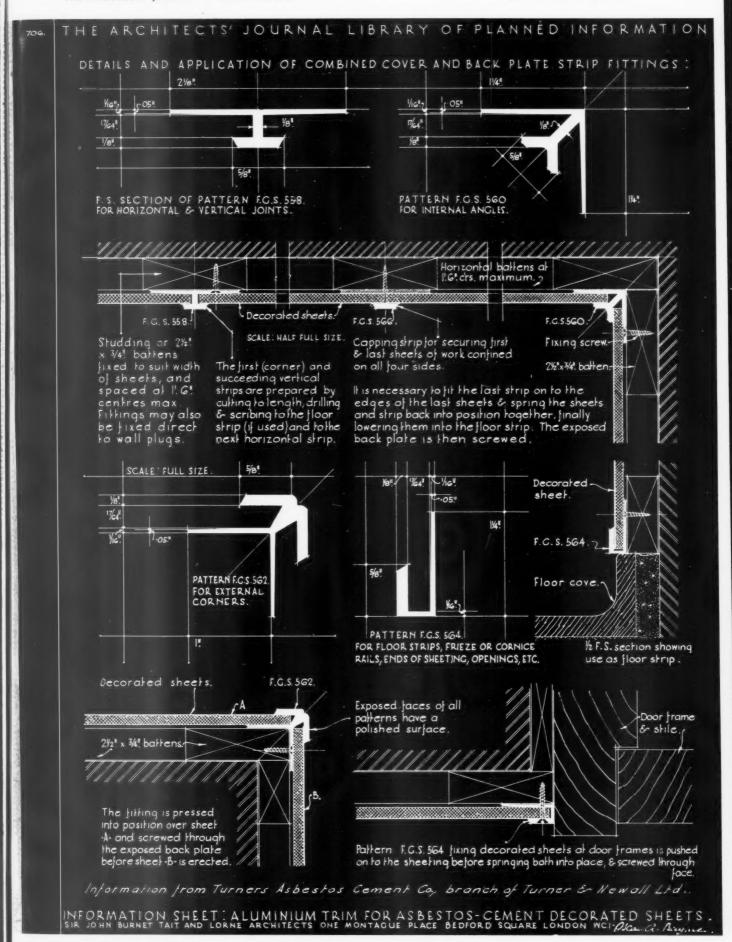
Issued by: The Northern Aluminium Co., Ltd.

Address: Bush House, Aldwych, London, W.C.2

Telephone: Temple Bar 8844







THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

• 670 •

METAL TRIM

Product: Anodised Aluminium Fittings, Natural Colour (Silver), for use with Asbestos-Cement Decorated Sheets.

Description :

The metal strips illustrated comprise a one-piece cover-strip and a back plate, joined together by a web to form a groove into which the Asbestoscement sheets are fitted. By the use of these fittings, it is unnecessary to drill the sheets for fixing-screws.

The strips are available in 6' 0" and 8' 0" lengths and in various patterns as shown, for use as intermediate strips and to suit internal and external corners, floor strips, frieze and cornice rails, ends of sheeting, openings, etc.

Fixing :

The strips are normally fixed through the back plate by means of 6 or 8 gauge countersunk wood screws, to studding on a timber-framed wall, to battens on a brick or similar wall, or direct to wall plugs. Having decided on the arrangement of decorated sheet panelling to be adopted, the walls are made ready to receive the strips by framing up at appropriate centres, or by plugging or battening as required.

Drilling and Cutting:

The drilling and countersinking of the strips will require to be done on the site, and engineers' twist-drills will be found most suitable.

The strips are easily cut and formed to the desired size and shape with a hacksaw for rough cutting, and are finally shaped with smooth files. A flat square-edged file and a half-round file (each about 10" long) will be suitable for all shapes likely to be required. The files should be rubbed with chalk occasionally when being used, as this eases the work and prevents the file becoming clogged with aluminium.

Erecting :

When a floor strip, e.g. FGS: 564, is used, this should be fixed first by means of screws through the back flange, the joints in the corners being fitted either by mitreing or by scribing one strip to the other.

The first vertical strip, e.g. FGS 558, may then be prepared by cutting to length, drilling and scribing the bottom end to fit the floor strips, and the top end to fit the next horizontal strip, which, depending on the height of the room, may be an intermediate horizontal strip, a frieze rail or a cornice rail.

The first vertical strip can then be fixed to the wall, the Asbestos-cement sheet being inserted in the groove in the floor strip and moved sideways into the groove of the vertical strip.

A second vertical strip, cut, drilled and scribed in a similar manner to the first one, can now be fitted to the Asbestos-cement sheet and fixed to the wall.

H

GEN

larg

90 1

PLA

opp

CO

face

boa

INT

Oa

kite

gas

Sol

Rig

TI

It should be noted that only one back flange of each vertical strip is screwed to the wall.

The same procedure is adopted with succeeding strips and sheets until the other end of the wall is reached, when it will be found necessary to fit the last strip, e.g. FGS. 560, on to the edge of the last sheets, and place sheets and strip in position together. One side of the last sheet is fitted into FGS. 558 and the other into FGS. 560, and the whole sprung back into line, the sheets and strip then being lowered into the floor strip. The last vertical strip is fixed by screws through the return leg of the same plate.

Horizontal Strips :

The horizontal strip may now be fixed by fitting it over the top ends of the sheets and into the scribed ends of the vertical strips. This horizontal strip, if an intermediate one, can be fixed with screws through the top back flange. When the horizontal strip is a cornice strip, i.e. fitted close up to a ceiling or soffit, it will be necessary to fix it before the vertical strips, by 6 gauge countersunk chromiumplated screws through the face of the strip, the strip being first fitted over the sheets, and sheet and strip together pushed into position. This horizontal strip should be used in such lengths as to enable the sheets to be manœuvred without difficulty.

Enclosing Sheeting:

It will also be necessary, in an area of sheeting which is confined on all four sides, e.g. an area of sheeting fitting between two corners of the room and from floor to ceiling or soffit, to use a finishing strip without web or back flanges, pattern FGS. 566. This means that the last panel or sheet will be edged on three sides with grooved strips screwed to wall through their faces and the joint along the fourth side covered with the ungrooved and unflanged strip fixed with screws through its face.

Packing Out:

A variation in thickness of the Asbestos-cement sheets is unavoidable, and where the sheets are too slack in the grooves of the strips, small paper packings should be stuck with Seccotine or similar adhesive on the backs of the sheets, one end of the paper being turned round the edge of the sheet so as not to be pulled off when pushing the sheet into the groove.

Should the sheets be found too thick to enter the groove in the strip, the back of the sheets should be filed down. A flat "dreadnought" or milling file will be found most suitable.

Information from: Turners Asbestos Cement Co. (Branch of Turner & Newall Ltd.)

Address (Central Office): Trafford Park, Manchester, 17
Telephone: Trafford Park 2181 (8 lines)

London Office : Asbestos House, Southwark Street, S.E.I
Telephone Waterloo 4041

HOUSE AT NORTHWOOD, MIDDLESEX

GENERAL—The client asked for a symmetrical design and large rooms facing west and south. Site is about 400 ft. by 90 ft.

PLAN—" Den" and loggia intended for children running in and out of garden. Separate boiler and fuel stores are opposite kitchen entrance.

CONSTRUCTION AND EXTERNAL FINISHES—11-in. walls, faced with multi-coloured bricks. Plain tile roof on close-boarding. Breeze and stud partitions. Steel windows in wood frames. External woodwork is painted cream, and netal, black.

INTERNAL FINISHES—Walls plastered and distempered. Oak flooring in reception rooms and cork composition in kitchen and pantry. Bathrooms are tiled.

SERVICES—Coal fires and radiators in principal rooms, gas elsewhere. Independent solid-fuel boiler in out-house. Solid fuel range; and refrigerator.

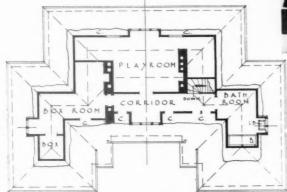
COST—Built by building contractor for his own use. No actual prices are available for publication.

Right, front and back elevations.

The general contractors were W. J. Page and Sons; for list of sub-contractors see page 625.





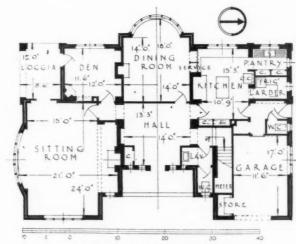


SECOND FLOOR PLAN



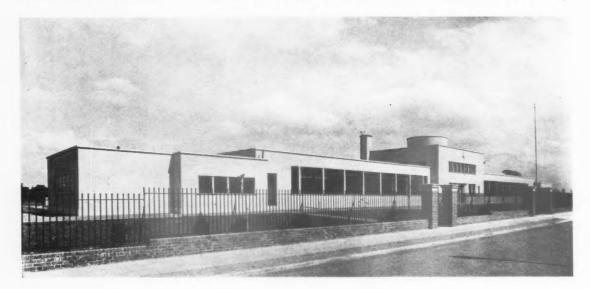
FIRST FLOOR PLAN

D E S I G N E D B M
M A X . R . H O F L E M



GROUND FLOOR PLAN

HINCKLEY HEATHFIELD SCHOOL,



GENERAL—Fully-equipped Central school for 480 Senior boys and girls.

SITE—Level generally, with slight fall from road. Playing fields are behind the school, and school gardens are provided.

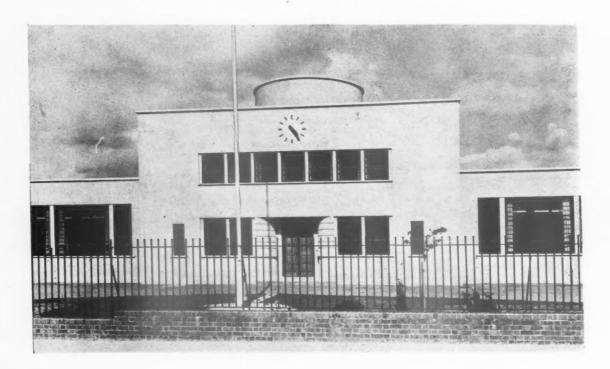
construction—Steel-framed with 13½-in. brick walls, cement rendered. Ground floor is mainly on pre-cast R.C. beams owing to the fall in the site, elsewhere ground floors are solid on 4-in. concrete. Upper floor and roofs are precast R.C., the latter finished in asphalt.

EXTERNAL FINISHES—Cement-rendering with steel case-

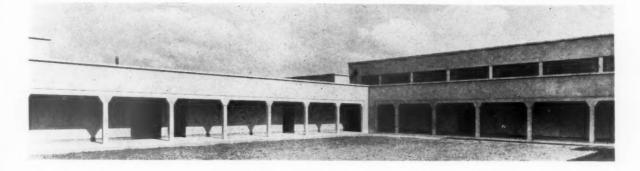
ments. Sills, copings, etc., are of artificial stone. Clock figures are blue mosaic and entrance doors of oak.

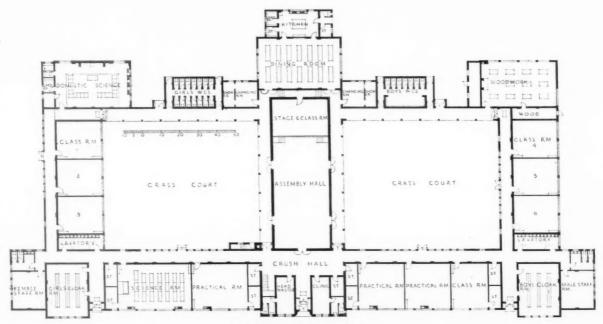
INTERNAL FINISHES—Walls: hard plaster with tiled dadoes generally; fair face brick in woodwork room and stores. Kitchen, changing-rooms and lavatories are tiled full height. Floors: grano in corridors, lavatories, etc.; Rhodesian mahogany in classrooms; terrazzo in entrance hall; maple strip in hall; asphalt in changing-rooms and showers; tiles in kitchen. Staircases are pre-cast R.C., non-slip faced.

The photographs show a detail and a general view of the entrance front.



LEICESTER: BY E. G. FOWLER





GROUND FLOOR PLAN



SERVICES—Heating: low-pressure hot water with radiators; separate domestic hot-water boiler. Cleaning: points for vacuum cleaners in all rooms. Radio: points for loudspeakers in hall and some classrooms. Bells: in all rooms, controlled from head teacher's room. Electric clocks: in all rooms. Heating pipes are run in ducts with access covers close-spaced.



COST—1s. 1d. a foot cube. Contract price, £31,040.

Top, the hall from the girls' court. Bottom, the gymnasium and the domestic science room.

The general contractors were Otley and Clegg; for list of sub-contractors, see page 625.



Lounge car interior for the New York Central Railroad by Henry Dreyfuss. Key: 1, crew's quarters; 2, barber shop; 3, serving bar; 4, club lounge. [From the "Architectural Forum."]

PERIODICALS

SEPTEMBER ANTHOLOGY

AMERICA

Architectural Forum

(Monthly, \$1.00. 135 East 42nd Street, New York)

SEPTEMBER. The Elbow Room, a New York restaurant designed by Norman Bel Geddes, the name indicating the luxury layout; railway train

interiors by Henry Dreyfuss and Raymond Loewy; a restaurant in Kansas City by Holabird and Root, a railway ticket office in Denver by the same architects—good and simple; a high school in Colorado by Frewen, Morris and Huntington; a theatre re-modelling by Michael Hare; competitions, a symposium by 154 architects who answered a Forum questionnaire, with an

interesting analysis of time spent and approximate costs; a remodelled town house in which Buckminster Fuller's prefabricated bath unit has allowed two bathrooms where only one grew before; various private houses.

Architectural Record

(Monthly, \$1.00, 115 West 40th Street, New York)

September. A school in Los Angeles by Gogerty and Noerenberg, specially designed to resist earthquake shock; a very jolly little information bureau for the New York World's Fair; the building types section deals with flat blocks, design trends covers the town planning of Cleveland.

Pencil Points

(Monthly, 50 cents. 330 West 42nd Street, New York)

September. The petroleum pavilion for the New York World's Fair; Professor Talbot Hamlin discusses competitions in general and the Wheaton College results in particular, with some additional comments on the Government's Post Office façade competition; museum lighting—a competent study by Olindo Grossi; the Early American architecture section continues to deal with old Marblehead.

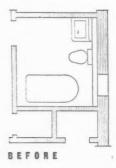
FRANCE

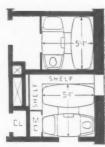
L'Architecture

(Monthly, 10 frs. 2 rue de L'Echelle, Paris, 1er)
August. New vaults for the Bank of
France by Defrasse and Ansaloni; the
Salle Chaillot, by Boileau, Carlu and
Azema; a flat block in the rue Malakoff
by Gras and Rendu.

September. Studios and living rooms, examples from current flat blocks; three







AFTER

A New York remodelling in which the use of Buckminster Fuller's prefabricated bath unit has allowed two bathrooms in the space formerly occupied by one. [From the "Architectural Forum."]

centuries of American architecturereview of an exhibition recently held in

La Technique des Travaux

(Monthly, 10 frs. 54 Rue de Clichy, Paris, 9e)

September. A flat block in Rotterdam by Van Tyen and Maaskant: two villas near Brussels by A. and Y. Blomme; a telephone exchange by A. Audoul; grain silos by various designers; the new Hudson river road, New York.

GERMANY

Baukunst und Städtebau

(Monthly, 1m. 90. Bauwelt Verlag, Charlot-ters:rasse 6, Berlin, S.W.68)

September. A hospital in Karlsruhe by Gisbert van Teuffel; the work of Gustav Gsaenger-a church near Munich and four country houses; a school in Rottweil by Gerhard Grauber and Richard Kesseler; building regulations for fireproof floors.

Bauwelt

(Weekly, 90 pf. Bauwelt Verlag, Charlotten-strasse 6, Berlin, S.W.68)

September 1. Industrial buildings continued-a storage and office block by Alfred Dissmann, and a factory by Egon Eiermann -no plans.

September 8. Country houses by Egon Eiermann; competition results.

September 15. H. H. Wachter's own house near Berlin, a house near Dresden by F. Wolf, and a house in East Prussia by H. Flotow.

September 22. The German building and housing exhibition at Frankfurt-on-Main; result of the competition for a new post office in Vienna, won by Heinrich Schmid and Hermann Aichinger.

September 29. A house in Tokyo by Tetsuro Yoshida—full plans, sections and many interior photographs.

Deutsche Bauzeitung

(Weekly, 3 m. 40 per month. Beuthstrasse 6–8, Berlin, S.W.19)

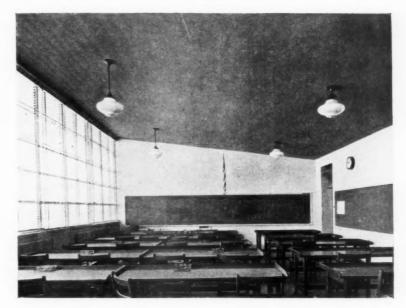
August 31. Result of a competition for the State Theatre in Oppeln, won by W. Bartmann—the first three, and two commended, designs are illustrated; compression tests on bricks and mortars.

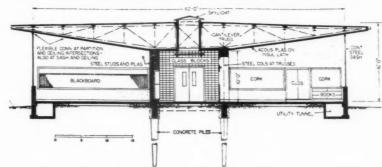
September 7. Stadia, notes and photo-graphs of various German schemes, including Professor Speer's Nuremberg job which now seems well advanced; notes on the building and housing exhibition at Frankfurt-on-Main.

September 14. Further notes on the Frankfurt Exhibition; a page of notes and illustrations of "Underground Aeroplane Hangars in England"; the fact that these schemes are only propaganda for a firm of concrete manufacturers does not seem to be made quite clear.

September 21. A new working-class housing scheme in the Hartz Mountains by F. J. Jirka, half-timber construction for the larger buildings.

September 28. The use of twisted steel reinforcing bars in reinforced concrete buildings, an article by Erich Friedrich.





Anti-earthquake construction for a school in Los Angeles. [From the "Architectural Record."

Building Supplement. Scheme for a congress and exhibition hall in Hamburg by Peter Behrens and Alexander Popp; a week-end house near Bremen and a house on the Elbe by Rudolf Lodders: recent work by Ernst Zinsser, mostly country houses; interiors and furniture by A. C. Rüdenauer: public buildings in Sweden.

Innen Dekoration

(Monthly, 2 m. 50. Alexander Koch, Neckar-strasse 121, Stuttgart)

September. Interior decoration in the German Air Ministry and German Air Force barracks, well handled, but rather oppressive traditional designs; a country house by Adolf Wendhut.

Moderne Bauformen

(Monthly, 3 m. Julius Hoffmann, Stuttgart)

September. A large and luxurious country house for the head of a firm of Munich decorators; two large flat blocks to give additional accommodation in Nuremberg; a country house for a Swiss doctor O. Linner; houses in Upper Bavaria—four jobs by Gustav Reutter; simple wooden furniture (with detail drawings) by Josef Leuthard.

HOLLAND

Bouwkundig Weekblad Architectura

(Weekly, 15 florins per annum. Weteringshans 102, Amsterdam)

September 3. A pumping station for the drinking water supply of Amersfoort by C. B. van der Tak; a fairly large country house by J. Stevens.

September 10. A church and rectory by F. J. Gouwetor.

September 17. Country house at Epe York Exhibition by Professor Wenckebach. September 24. Competition for a new September 24. Competition for a new civic centre at Huizen won by E. J. Falkenburg and W. M. Groeneveld.

de 8 en opbouw

(Fortnightly, 30 cents. Amstel 22, Amsterdam (C)

September 3. A number devoted to the seaside resort of Zandvoort; a flat block by Zanstra, Giesen and Sijmons; a bathing beach, restaurant and dressing boxes by J. P. Kloos.

September 17. A holiday house by H. Salomonson.



A country house in Holland by J. van der Linden. [From "Bouwkundig Weekblad Architectura."]

ITALY

Architettura

(Monthly, 18 lire. Via Palermo 10, Milan)

August. A home for the war mutilated at Genoa by Eugenio Fuselli; new hangar buildings at the air port of Linate; the new railway station, by Roberto Narducci, built for the reception of Herr Hitler during his recent visit to Rome; town planning notes.

Rassegna di Architettura

(Monthly, 15 lire. Via Podgora 9, Milan) June. An article by Carlo Rava on the possibility of architect-designed film sets; a metal tube factory at Turin by the brothers Rigotti, full constructional notes are given at the end of the issue.

SWEDEN

Byggmästaren

(Weekly, 20 Kr. per annum, Stockholm) Kunsgatan 32,

No. 21. Fire-proofing and fire tests on buildings, an article by Christer Möller. No. 23. Finishes for concrete, an article

by P. A. Bech. No. 24. A discussion on working-class

housing. Technical notes.

No. 26. Trailer caravans, current English, American and German designs with photographs and plans.

SWITZERLAND

Schweizerische Bauzeitung

(Weekly, 1 fr. Dianastrasse 121, Zürich)

September 3. An enlarged number devoted to the various buildings for the 1939 Exhibition at Zürich.

September 10. This span concrete bridges.
span concrete bridges.
17. Portable welding ma-September 17. Portable welding machines; the Louis Pasteur hospital at Colmar by W. Vetter.

September 24. Competition scheme for a hospital at Schaffhausen by W. Vetter, and an article on the design of operating theatres with students' galleries above.

Werk

(Monthly, 3 m. 50, Muhlebachstrasse 59, Zürich)

Traditional and modern building in Palestine, a well-illustrated article by J. Posener; buildings by Swiss architects in other countries, bridges in America, houses and schools in Turkey, and a flat block in Colombo.

Professional Announcements

Mr. Morris de Metz, A.R.I.B.A., has moved his office to No. 155 Oxford Street, W.I. Telephone No.: Gerrard 1442.
Mr. Eric N. Smallwood, L.R.I.B.A., has

opened an office at Metropolitan Chambers, Lichfield Street, Wolverhampton. phone: Wolverhampton 21178. He will be pleased to receive trade catalogues at that address.

LAW REPORTS

ret tio

un

th

ov

SIL OV

ac tic

re

of T

THE AIR MINISTRY NEW BUILDING : DISPUTE OVER FOUNDATIONS

Knott v. Sir Robert McAlpine and Sons (London), Ltd.—Chancery Division. Before Mr. Justice Asquith.

THIS was a motion by the plaintiff, Mr. Knott, the lessee of 3 Berkeley Square, against Sir Robert McAlpine and Sons (London), Ltd., in regard to the excavations made by the defendants, for the erection of a building at 4 Berkeley Square, for the Air Ministry.

Mr. Hewins appeared for the plaintiff and Mr. Harold Lightman for the defendants.

Mr. Hewins stated that the defendants were constructing a retaining wall below the road on the site of the old party wall between the properties Nos. 3 and 4 Berkeley Square. The defendants had replied by affidavits which were very voluminous. Counsel had only seen those affidavits that morning, and he wished for time to answer them. It might prove that there was a dispute of fact, which could not be dealt with on motion, and the matter would then have to stand over for trial.

His lordship said he had looked at the papers and it appeared to him that there was a question of fact as to whether the excavations at No. 4 did go below the level of the road or not.

Mr. Hewins said there was also a question of what was the meaning of "foundations. It might be necessary for him to ask the Court for the appointment of an architect to inspect and report on the work that the defendants had so far carried out on the foundations, and as to the depth of the excavations.

Mr. Lightman said he had been puzzled as to what the plaintiff wanted. His case was that there could be no dispute here. His clients had already put in heavy concrete foundations and his case was that the defendants had not gone below the level of the old foundations.

Mr. Hewins said his instructions were that the defendants had hurried on with the work and put in the concrete foundations.

Mr. Lightman: That is not true.

Mr. Hewins said he wished to restrain the defendants from doing this work till they had complied with the London Building If the defendants persisted in going on with the work he would have to ask for a mandatory injunction to remove the foundations the defendants had put in.

Mr. Lightman said the building his clients were constructing was for the Air Ministry and it was important that the work should proceed with all speed.

His lordship directed the motion to stand over for the defendants to reply to the plaintiff's affidavits.

When the motion came before Mr. Justice Asquith a week later, Mr. Hewins said he was glad to say that the parties had arrived at terms on the motion. Plaintiff had con-sidered the defendants' evidence and had filed further evidence in reply to the defence. It was now agreed that the motion should stand over on certain terms. The issue on the motion, continued counsel, was whether

or not the defendants had constructed the retaining wall below the level of the foundations within 10 ft. of the plaintiff's building under the London Building Act, and if so, a notice would have to be served. When that notice had been served, the adjoining owner could serve a counter notice and a surveyor might decide that the building owner should underpin or strengthen the adjoining owner's wall. Defendants' attention had been called to the fact that the retaining wall was not only flush with the party wall, but was alleged to have been constructed on the footings or some part of the footings of plaintiff's party wall.

This question had been referred to surveyors and should they find in the plaintiff's favour, the plaintiff would get all she was asking by her motion. Under these circumstances the motion would stand over pending the surveyors' award, with liberty to restore on the publication of the award. Plaintiff now undertook to accept served the notice required under the London Building Act and also to admit that she had been served with the necessary

Mr. Lightman said he agreed to the terms mentioned, but it must not be taken that the defendants had in any way interfered with the foundations of the plaintiff's wall. His lordship directed the motion to stand over generally, with liberty to restore on

cross notice by the defendants.

the publication of the surveyors' award.

The action is in the list of Mr. Justice
Farwell for trial, when the matter is ripe
for hearing.

COMPLAINT OF BLASTING OPERATIONS

Borough of Dudley v. Skelland.—Chancery Division. Before Mr. Justice Morton

THIS was a motion by the Borough of Dudley for the committal of the defendant, Skelland, for breach of injunction.

Counsel stated that the plaintiffs were the owners of a housing estate known as the Wren's Nest estate, and their complaint was that the defendant had carried on blasting operations near by, which endangered the life and limbs of the tenants and their families and did damage to the houses. The Council had obtained an interim injunction against the defendant and it had been made perpetual. The complaint was that in July the blasting operations were again commenced by the defendant and stones had fallen on people on the estate and damage had been done to the houses. Under these circumstances the Council now sought the committal of the defendant.

The answer of the defendant was a denial of liability and an allegation that the falling stone was due to people using catapults, and he pleaded that he was not therefore responsible. The defendant had put in a number of affidavits and the Council desired to answer them.

Mr. St. John Hutchinson, K.C., who appeared for the plaintiffs, asked for an adjournment to answer the defendant's affidavits.

Mr. Roxford, for the defendant, said his client was the owner of a quarry near the estate, and he opposed the motion and also any adjournment. He was ready to go on. His lordship directed the motion to stand

over for two weeks.

TRADE NOTES

[By PHILIP SCHOLBERG]

The Problem of Renderings

THE Building Research Station has been publishing résumés of questions received for a good many years now, and a month hardly ever goes by without some reference to failure in renderings, And since, of the total number of queries received, only a small proportion are ever published, it may be assumed that the failure of renderings is a really serious problem: most architects, at any rate, get no further than hoping for the best, and the number of proprietary renderings and stone paints on the market is another indication that renderings are not regarded as reliable. And the word reliable, as the Building Research Station rightly points out, does not only mean sustained good appearance, but sustained weather-proofing as well, for a wall covered with a dense but cracked plaster may actually be less weatherproof than a bare wall.

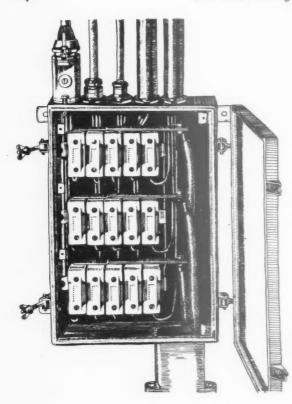
Everybody knows that the Building Research Station has been paying a great deal of attention to the problem, and a little was heard last year about an expedition made to the Continent to find out what was done Brief reference to this was made in the Building Research Board's report for the year 1937, and a further more exhaustive pronouncement was promised in due course. This has now appeared,* and seems about the best shillingsworth the Stationery Office has ever produced. To the architect, the main point of interest is the statement made quite early on that "the defects which frequently occur in this country are not found in rendered finishes in the countries visited. Cracking and crazing are virtually unknown, and any cracking which occurs is due either to a movement of the structure or to some obvious departure from accepted practice. The renderings can also be relied upon to be weatherproof." How is this eminently desirable state of affairs reached? The general Continental practice of rendering differs from the English method both in materials and methods of application and finishing. The behaviour of wall surfaces is also improved by the free use of flashings on parapets, string courses and all horizontal surfaces and projections, for these not only prevent the absorption of moisture

—particularly with the absorbent renderings commonly used-but they also throw the rain clear of the wall.

Dealing with the question of materials, the report leads off with a short consideration of the lime stucco so widely used in this country during the Regency, and points out that its apparent durability is a testimony to the protective qualities of the paint applied to it rather than to the durability of lime. On the Continent it is generally regarded as the cheapest form of finish, and the general conclusion reached is

* External Rendered Finishes: A Survey of Continental Practice. (By F. L. Brady and L. F. Denaro. London: H.M. Stationery Office: Price 1s.) that it is, on the whole, "barely sufficiently durable and weatherproof. There are evident differences in durability and weatherproofness, but the factors, either in materials or craftsmanship, which determine the permanence of the work are not now ascertainable. Protection by paint is desirable; horizontal surfaces and projections must be protected by flashings. Surfaces near pavement level exposed to rubbing and to rising ground moisture must be covered with a harder and more resistant material." A plasterer of long experience is quoted as being of the opinion that hydraulic lime softens and decays after prolonged exposure to moisture, whereas white lime gets continually stronger, so that after a time the finishing coat becomes too strong for the undercoat and pulls away, though the reasons for this softening of the undercoat (which often becomes reduced to a powdery mass) are not known.

Textured finishes are widely used, the general opinion being that rough textures break up the film of dripping rain water and decrease the slow percolation through the finishing coat to the undercoat. The Report does not attempt to decide whether or not this opinion is right, but adds that except on plinths, one rarely sees a rendering so smooth as the wood-floated cement finish which is common in this country." The more common finishes are either fine or coarse roughcast thrown on thinly from a small steel trowel; brushthrown roughcast in which the plaster is thrown on from a small besom of twigs about 18 ins. long; or Strichputz, literally "stroked" stucco, but referred to in the Report as "torn stucco." The brush-thrown method involves rather high labour costs, though a small portable machine has now been evolved to do much the same job : from the description this appears to be the same machine as that supplied by the Cement Marketing Company for the application of their new Tyrolean finish. "Torn stucco is produced by applying an ordinary stucco mix to which is added a small proportion of coarser pebbles like those which often pass under the name of pea gravel. The stucco is trowelled from the mixing trough straight on to the hawk or handboard and then flung on the wall with rapid flicks of a steel trowel, the average thickness of the coat being slightly greater than the diameter of the coarsest pebbles. When a yard or two has been covered the handboard is pressed firmly on to the work and drawn quickly along. several horizontal strokes being given, all in the same direction. The stucco is thus first levelled, then pressed out slightly until the coat is as thin as the diameter of the larger pebbles which, during the last few strokes, are dragged and rolled along under the board, forming a series of irregular channels. This finish is very cheaply produced, and is most suitable where large areas have to be covered; its weathering



Sketch of the new Super-Sandaspeed fuse and distribution board: various types of outlet fittings are shown at the top. (See note on this page.)

properties are good, and it is widely used in Switzerland and South Germany."

For a good many years much of the best rendered work in Germany, Switzerland, Austria and Czechoslovakia has been finished with Edelputz, a trade name signifying "super stucco," and for the greater proportion of this work one of the factory-made proprietary mixtures has been used. In some districts the exact constituents of the mix are kept secret, but it is generally composed of cement, lime and a graded aggregate in the proportions (by weight) of 1:3:12-14. The mixture is supplied in sacks and only the addition of water is needed on the site. Colour mixtures in the paler tones are obtained by using an aggregate from a natural rock, but for deeper or more brilliant colours the addition of some pigment is necessary. Here again factory mixing scores, for it is possible to supply stucco for large areas of wall with the certainty that there will be perfect uniformity between one delivery and the next, as the materials can be mixed in large batches.

The Report continues with a discussion of the materials used for undercoats, the various methods in use for producing scraped finishes and suggests the appropriate variations in texture to suit different degrees of atmospheric pollution. It is also pointed out that independent scaffolding should be used where a perfect finish is required, for "it is known to be quite impossible to make good putlog holes imperceptibly, or to marry successive areas of rendering if there has been too long an interval between them.

The scaffolding is therefore built so that the work can be carried down without interruption and sufficient plasterers employed to enable the whole of a wall to be covered down with as little interval as possible."

The Report concludes with a suggested specification for a scraped finish cement lime rendering, but adds that "since the materials and methods used are so different from those which are in common use in this country, it will obviously be unwise to use the specification in a job of any size until some test panels have been prepared and kept under observation for a time, or until experience has been gained with a small area of work which would not involve too great cost and inconvenience if difficulty were experienced. The Building Research Station would be glad to receive reports on the results of any trials made on the basis of this specification."

In this brief review it is not possible to deal adequately with all the points raised in the report: all one can suggest is that any architect who thinks he may ever want a rendered finish should get it at once.

Fuse and Distribution Boards

The sketch on this page shows a new type of board recently introduced by Sanders of Wednesbury. This board is known as the "Super-Sandaspeed," and is built up from sheet steel, the fuse units being of the Duplex type already referred to in these Notes. The design is such that there is plenty of room for wiring operations, and

all live parts are shielded with insulating barriers on which are mounted labels for indexing the outgoing circuits. Connection from the bus bar to the fuse is by split tubular copper members which are expanded into the fuse terminal by taper screws. Individual fuses can thus easily be detached without interfering with the rest. A good sound fitting this, for the manufacturers have evidently taken a great deal of trouble to find out exactly what is wanted, and have then done their best to supply it.—(William Sanders & Co. (Wednesbury), Ltd., Falcon Electrical Works, Wednesbury, Staffordshire.)

sup

Manufacturers' Items

That manufacturers are alive to the problems of school construction is shown by the publication of Asbestos-cement in Schools, by Turner's Asbestos Cement Co., Branch of Turner and Newall, Ltd, This booklet deals with the application of asbestos-cement materials to modern school buildings and it contains numerous photographs of work which has been carried out. Of particular interest are the colour photographs of the Brimrod Nursery School, Rochdale, for these show the application of Turnall marbled-glaze sheeting to walls of a large schoolroom with pleasing results. Other photographs show interior and exterior views of some of the newest school buildings in the country where asbestos-cement has been used for roofings, wall-coverings, laboratory ducting, floor insulation, rainwater and flue pipes, and a host of other applications. Copies of the booklet are obtainable, free of charge, on application to the firm, post free upon request.

Messrs. W. T. Henley's Telegraph Works Co., Ltd., of Holborn Viaduct, E.C.t, have issued a six-page folder devoted to their corrosionproofed fuse strip, which has been evolved to overcome the inconvenience and trouble caused by fuses of tinned copper wire operating prematurely under normal loading conditions.

Plymax (the metal-faced plywood), plymax standard units, Venesta plywood, Venesta plywood flush doors, and other Venesta products used in schools under the control of the Board of Education in all parts of the country are described in a folder just issued by Venesta, Ltd., of Vintry House. Queen Street Place, E.C.4.

On October 5, Mr. James H. Gregory, of Messrs. A. Edmonds & Co., Ltd., shopfitters, sailed for New York in the "Aquitania." In the course of an extensive tour embracing the principal cities of the U.S.A. and Canada, Mr. Gregory will endeavour to obtain new ideas for store planning, equipment and frontage design.

More than 97 per cent, of the domestic electrical consumers of Great Britain can buy their current at 1d. a unit or less according to a recent survey of electrical charges in Great Britain conducted by a Fellow of the Royal Statistical Society.

Statistical Society.

The results of the survey have been published by the British Electrical Development Association in a booklet entitled *The Truth about the Price of Electricity in the Home.* The publication also reveals that: 60 per cent. of consumers can buy current at \(\frac{1}{2}d\), a unit or less; \(85\) per cent. of consumers can buy current at \(\frac{3}{2}d\), a unit or less; \(85\) per cent. of clectrical consumers in Great Britain need pay more than 1d. a unit.

These prices are made possible, it is pointed out, by the "All-in" domestic rate which has

been adopted by the majority of electrical supply undertakings in Great Britain.

"It is impossible to guarantee," the report states, "that no advance in electricity prices will take place . . ." but "it is unlikely that any general increase in the selling price of electricity will be necessary because the cost of coal is a relatively smaller proportion of the total cost of production than with gas." total cost of production than with gas."

A new service for architects and builders is announced by Celotex Limited, whose new factory for the manufacture of structural cane fibre, on the North Circular Road, Stonebridge Park, Middlesex, is in production.

The main object of the new service is to supply

architects and builders with comprehens information on all branches of acousti acoustical correction, particularly as applied to the control of sound by the use of insulating board and

sound-absorbing materials.

Other activities of the service will include the initiation of original research into the problems of sound control in modern architecture and in buildings which are already completed. Reports on such work will be prepared from time to

Experts will be available for the carrying-out of acoustical analyses in theatres, cinemas, concert halls, and other large or small interiors where the accurate control of the acoustics is a matter of first importance, entirely free. The service is

THE BUILDINGS ILLUSTRATED

FLATS AT HIGHGATE: HIGHPOINT NUMBER TWO (pages 601-607). Architects: Tecton The general contractors were J. L. Kier & Co., Ltd., who were also responsible for the reinforced concrete. The sub-contractors, Kier & Co., Ltd., who were also responsible for the reinforced concrete. The sub-contractors, craftsmen and suppliers included: Earl of Dudley Brick Works, bricks, Staffordshire blues; Carter & Co., Ltd., external and internal tiling; Williams and Williams, windows and cills; Thomas Wilson, Ltd., plastering; G. N. Haden and Sons, Ltd., heating, plumbing and drainage; Mortimer, Gall & Co., Ltd., electricity; J. and E. Hall, Ltd., lifts; Frigidaire, Ltd., refrigerators; A. Goldstein & Co. (Glass Merchants), Ltd., glazing; D. Sebel & Co., Ltd., handrails, spiral stair; V. Naudeau, Ltd., supplied glass bricks fixed by general contractors; Gliksten Doors, Ltd., doors; L. E. Vigar and Sons, Ltd., joinery; Sharp Bros, and Knight, Ltd., joinery; Joseph Sankey and Sons, Ltd., metal door frames; Shanks & Co., Ltd., sanitary fittings; Permanite, Ltd., asphalte; Belling and Lee, Ltd., wireless; Dryad Metal Works, Nettlefold and Sons, Ltd., and Oscar Kanter, ironmongery; Rota Products, Ltd., kitchen equipment; F. P. Morton, Esq., sculpture: Treloar and Sons, carpets; J. Starkie Gardner, Ltd., lift push plates and ash trays; Jaconello, Ltd., travertine; R. C. Cutting & Co., Ltd., lightning conductor; A. Johnson & Co. (London), Ltd., sinks; William Ryder, Ltd., bathroom cabinets; Pontifex and Emanuel, Ltd., sink taps; Modern Floorings Co., linoleum.

PRIVATE HOUSE AT NORTHWOOD (page PRIVATE HOUSE AT NORTHWOOD (page 617). Architect : Max R. Hofler. The general contractors were W. J. Page and Son, and the sub-contractors and suppliers : Woodcock Hill Brick Co., bricks; Wiggins Sankey, tiles; Permanite, flat roofs; Architectural Timber, woodblock flooring; Granwood Flooring Co., patent flooring; Freeman Heating Co., central heating; Triplex Grates, Ltd., grates in kitchen; Cozy Stove Co., stove in dining room: W. N. Froy and Sons, Ltd., grates; Wheeler, electric wiring; Pontifex and Emanuel, sanitary fittings; Crittall Manufacturing Co., Ltd., fittings; Crittall Manufacturing Co., Ltd., casements; Gypsum Mines, Ltd., Sirapite to casements; Gypsum Mines, Ltd., Sirapite to walls, limed hair to ceilings; Eborn, shrubs and

HINCKLEY HEATHFIELD SCHOOL (pages 618-619). Architect: E. G. Fowler. The general contractors were Ottey and Clegg, who were also responsible for the excavation and joinery. The sub-contractors and supplie included: Leicester Asphalte and Tar Pavir Co., asphalte; Constone, Ltd., "Corite patent precast-floors and roof flats; G. Pott Co., aspirance, patent precast-floors and roof flats; G. room, and Sons, structural steel; F. J. Bayliss and Son, glass, lead, gas-fitting and plumbing; W. G. Kaleyards, Ltd., patent glazing and casements; Acme Flooring and Paving Co., wood-block flooring; Limmer and Committed Lake Asphalte Co., Colourphalte; Trinidad Lake Asphalte Co., Colour Kerner-Greenwood & Co., Ltd., Pudlo;

Austen and Young, Ltd., central heating; Leicestershire and Warwickshire Electric Power Leicestershire and Warwickshire Electric Power Co., gas fixtures; A. E. Matkin, Ltd., electric wiring and electric light fixtures; Joseph Kaye and Sons, Ltd., door furniture; Inglesants, Ltd., blinds and curtains; Hill and Smith, folding gates; Arthur Hutt, plaster; M. Bull, metalwork; Gimson & Co. (Leicester), Ltd., furniture; J. C. Kellett and Sons, furniture; Educational Supply Association, Ltd., furniture; Corts. Ltd., garden furniture; Bradshaw Corts, Ltd., garden furniture; Bradshaw Brothers, shrubs and trees; A. Brown & Co., cloakroom fittings; Smith's English Clocks, Ltd., clocks; James Woodward, Ltd., tiles; G.P.O., telephones; Hinckley U.D.C., water supply.

THE WEEK'S BUILDING NEWS

ANSFORD. School. The Somerset Education Committee is to erect an elementary school at Ansford, at a cost of £38,267.

BOLTON. Houses. Plans passed by the Bolton Corporation: Nine houses, Park Road, A. T. Reynolds & Co. (Estates), Ltd.: eight houses, Lever Edge Lane, Bagguley and Fenton: 21 houses, Rawlyn Road, etc., Mr. A. S. Woods: six houses, Smithills Croft Road, Mr. James Reddy: 152 houses, Blenheim Road, Park & Co.; 16 houses, Pocket Nook Road, Mr. E. Garside: 48 houses, Bradford Road, Mr. Wilfred Andrew.

BRADFORD. School. The governors of the

BRADFORD, School. The governors of the Grammar School, Bradford, are to erect new

premises, at a cost of £50,000.

BRIDGEND. School. The Glamorgan Education
Committee is to erect a senior school at Bridgend,

at a cost of £54,185.

CARLISLE. Houses. Plans passed by the Carlisle Corporation: Six houses, Landowne Crescent, A. Blakeley and Sons.

Plans passed by the COULSDON. Houses. COULSDON. Houses. Plans passed by the Coulsdon U.D.C.: Eight houses, 21–23 Nutfield Road, and six houses, St. Andrew's Road, Mr. R. C. Handcock. COVENTRY. Houses. The Coventry Corporation

is to erect 500 houses on the Canby Estate, at a cost of £172,800.

cost of £172,800.

DARTFORD, Hospital. The Kent C.C. is to prepare a scheme for the provision of a new 600-bed hospital, capable of further expansion to 1,000 beds, in the Dartford area, either on an entirely new site or on the existing site of the County Hospital, Dartford, at a cost of £510,000.

DENTON. Houses. The Denton R.D.C. is to erect 76 houses on the Chapel Field Estate, at a

cost of £24,616.

DORCHESTER, School. The Dorset Education
Committee is to erect an elementary school in

Dorchester, at a cost of £25,600.

FARNBOROUGH. Hospital Extensions. The Kent C.C. is to proceed, in the near future, with the provision of further additional accommodation for 500 cases at the County Hospital, Farnborough, at a cost of about £200,000.

FLEETWOOD, School. The Lancashire Education

Committee is to erect an elementary school at Fleetwood, at a cost of £24,640.

HOVE. Houses. Plans submitted to the Hove

Corporation: 20 houses, Hangleton Road: six houses, Nevill Avenue, Tudor Close and six nouses, Nevill Avenue, Tudor Close and Holmes Avenue, Thompson and Walker; nine houses, 14–30, Goldstone Way, Messrs. Cook (Brighton), Ltd. Hyde. Houses. The Hyde Corporation is to erect houses on the Walker Estate, at a cost of

£53,900.

KETTERING, Houses. The Kettering U.D.C. is to erect 100 houses on the Avondale Estate, at a cost of £31,000.

cost of £31,000.

MARKET HARBOROUGH, Houses. Plans passed by the Market Harborough U.D.C.: Eight houses, Bath Street, Mr. C. Page.

NORTHAMPTON. School. The Northampton Education Committee is to erect a school on the

Spencer Estate.

School, The Ossett Education Committee has purchased a site for a new senior

PONTEFRACT. Houses. The Pontefract Corporaon is to erect eight houses at Monkhill, at a of £.4.500.

PONTEFRACT. School. The Pontefract Education

PONTEFRACT. School. The Pontefract Education Committee has approved plans of the new senior girls' school at Carleton Park.

RUSLIP. School. The Middlesex Education Committee is to erect an elementary school on the Garden Estate, Ruislip, at a cost of £37,742.

SANDERSTEAD. Houses. Plans passed at Sanderstead: Six houses, Mitchley Avenue, etc., J. Laing and Son, Ltd.

SLEAFORD. Houses. The Sleaford U.D.C. is to erect 61 houses in North Road.

SOMERSET. School. The Somerset Education Committee is to erect a senior school at Stoke-

erect 61 houses in North somerset Education somerset. School. The Somerset Education Committee is to erect a senior school at Stoke-under-Ham, at a cost of £38,134.
swindon, Houses, Plans passed by the Swindon Corporation: Six houses, Sunnyside Avenue, Pope Bros.: 12 houses, Collett Avenue, E. H., Bradley and Sons; 29 houses, Upham Road, etc., Colbornes Estates, Ltd.
stalybridge. Bungalows. The Stalybridge

STALYBRIDGE. Bungalows. The Stalybridge Corporation has obtained sanction to borrow £13,104 for the erection of 50 bungalows on the Springs Lane site.

WAKEFIELD. Houses. The Wakefield Corpora-

wakefield. Houses. The Wakefield Corpora-tion is to obtain tenders for the erection of 78 houses on the Darnley Estate and on the Portobello Estate. wallasey. School. The Wallasey Education Committee has purchased a site for a Roman Catholic Senior School, off Rake Lane.

Catholic Senior School, off Rake Lane. WARRINGTON. Houses. Plans passed by the Warrington Corporation: 62 houses, Charter Avenue, for Messrs. Greenwood Bros. WATH-UPON-DEARNE. Houses. The Wath-upon-Dearne U.D.C. is to erect 80 houses on the Newhill Estate, at a cost of £33,750. WELLINGTON. Houses. The Wellington (Salop) U.D.C. is to erect 70 houses on the Arleston estate, at a cost of £26,612. WETHERBY. Houses. The Wetherby R.D.C. is to erect 48 houses in various parishes, at a cost of £21,080.

to erect 40 nouses in various parishes, at a cost of £21,089.

WHITLEY BAY. Welfare Centre. The Northumberland C.C. is to erect an infant welfare centre at Whitley Bay, at a cost of £3,200.

WORTHING. Houses. The Worthing R.D.C. is to erect 48 houses in East Preston, at a cost of £00 area.

of £20,300.

WORSLEY, Houses. The Worsley U.D.C. is to erect 10 houses in Cleggs Lane, 34 at the Wharton estate, and 80 at Peel Park, at a cost

of £52,889.
WORTLEY, Houses, The Wortley R.D.C. is to erect 286 houses in various parishes, at a cost of

£98,073. Extensions to Power Station. The York

YORK. Extensions to Power Station. The York Corporation is to extend the power station, at a cost of £199.850.
YORK. Police Buildings. The York Corporation has prepared a scheme for alterations to police buildings at a cost of £15,000.

Copies of the loose supplement containing the labour rates for the principal towns and districts throughout the country can be obtained from the JOURNAL, price 2d. to cover postage.

PRICES

O^N the following pages appears Prices of Materials
—Part I, with the prices, last published on
September 15, brought up to date.

Immediately below, Messrs. Davis and Belfield mention the principal changes which have occurred in the last month. Similar notes will be published on this page each month.

*

ANSWERS TO QUESTIONS

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

NOTES ON PRICE CHANGES

I have not been able to obtain satisfactory firm quotations for timber owing to fluctuations caused by sudden A.R.P. demands, etc. The timber prices published this month are the same as those published last month as it seems only reasonable to expect that prices will soon return near their normal level.

O. A. DAVIS, P.A.S.I.

- Items marked thus have risen in price since last quotation on September 15.
- * Items marked thus have fallen in price since last quotation on September 15.

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

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

B.—Prices for Approximate Estimates.

★ The previous complete Supplement is contained in the issues of the JOURNAL for September 15, September 22, September 29 and October 6.

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.

PART 1

CURRENT MARKET PRICES OF MATERIALS-I

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

CONCRETOR

Cements

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

Rapid hardening Water repellent				4 Tons	In 80-ton freights F.A.S. Safe Wharf in River Thames, London Area.
Portland			per to	n 42/-	39/6
Rapid hardening			per to	n 48/-	45/6
Water repellent			per to	n 72/-	
Atlas White (1 ba	rrel 376	lbs.)			per barrel 44/-

Colorcrete	rapid har	dening.	Nos. 1	and	2	per ton	upwards 69/-
Colorcrete	non rapid	harde	ning			per ton 140	/- to 300/-
Snowcrete						per ton	175/-
					1 - 10	11-15 16-2	20 1 ton and
-					cwts.	cwts. cwt	s. upwards

London area	delivered	per cwt.	7/9	7/3	6/-	6/-
4	Aggregate an	d Sands	(Full	Loads)		
2" Unscreened ball	last			per yard	cube	6/-
1" (Down) Washe	ed, crushed	and gra	aded	-		
shingle				per yard		6/2
3" (Down) Ditto				per yard		7/6
2" Broken brick				per yard		10/6
¾" Ditto				per yard		11/9
Washed pan breez	e			per yard	cube	5/3
Coke breeze 1" to	dust			per yard	l cube	13/6
3" Sharp washed	sand			per yard	cube	8/3
White Silver Sand						25/-
(For Sands for	Bricklaying	and Pla	asterin	g see res	pective	trades)

(For Sands for Bi	ricklaying a	end Plas	sterm	g see respective	trades
	P	avings			
Brick hardcore				per yard cube	2/9
Concrete ditto				per yard cube	3/9
Clean furnace clinke	r and boiler	ashes		per yard cube	3/6
Coarse gravel for pa	ths			per yard cube	6/9
Fine ditto				per yard cube	9/6
Clean granite chippi				per ton	18/6
Red quarry tiles, 6"				per yard super	6/-
Buff ditto, $6'' \times 6''$				per yard super	6/6
Hard red paving bri	icks			per 1,000	150/-

Hard red paving bricks				per 1,000	150/-	
	Rein	forcem	ent			
*Basis price for mild ste	el rods	, å" di	ameter a	and upwards,		
from London stocks				per ton £	13 10	0
Extras for :-				non ton	***	

3 and 1 diameter	 	 per ton	10/-
$\frac{9}{16}''$ and $\frac{1}{2}''$ diameter diameter	 	 per ton	15/-
4" diameter	 	 per ton	20/-
diameter	 	 per ton	30/-
i" diameter	 	 per ton	40/-
diameter	 	 per ton	60/-
Lengths of 40 ft. to 45 ft.	 	 per ton	10/-
Lengths of 45 ft. to 50 ft.	 	 per ton	15/-

CONCRETOR—(continued)

Sundries

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

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 Flett	ons	 	per 1,000	46/3	
* Phorpres keyed Fletto	ns	 	per 1,000	48/3	
Blue Staffordshire wirec	uts	 	per 1,000	165/-	
Lingfield engineering win	recuts	 	per 1,000	95/-	
Breeze fixing bricks		 	per 1,000	57/6	
Firebricks, best Stourbri	idge 21"	 	per 1,000	155/-	
Firebricks, best Stourbr	idge 3"	 	per 1,000	190/-	
· · · · · · · · · · · · · · · · · · ·	No.		-		

* 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 Fle	ettons				per 1,000	66/8
Midhurst Whites					per 1,000	75/-
* Hard stocks, firsts					per 1,000	93/-
* Hard stocks, secon					per 1,000	86/-
Sand-faced, hand-ma		ls		per	1,000 from	115/-
Sand-faced, machine					1,000 from	110/-
Red rubbers (94-in.)					per 1,000	300/-
Hunziker (white)					per 1,000	67/6
Hunziker (creams, li		evs etc	.)	per	1,000 from	100/-
Dunbricks (concrete	0				per 1,000	72/-
Dunbricks (concrete						
works					per 1,000	75/-
Southwater engineer	ring No	o. 1 (fir	st qua	lity		
red pressed)					per 1,000	145/-
Southwater engineer	ing No	. 2 (seco	ond qua	dity		
red pressed)					per 1,000	125/-
Blue pressed					per 1,000	174/-
* At King's Cross. Discount if accompa	For a	delivery by orde	in W.	C. distr	ict add 4/3 p 2/- per 1,00	per 1,000.

* Items marked thus have fallen in price since September 15th.

CURRENT PRICES

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

BRICKLAYER AND DRAINLAYER

BRICKLAYER—(continued)

White, Salt and Coloured Glazed Bricks (9" \times $4\frac{1}{2}$ " \times $2\frac{7}{8}$ ")

The following prices are subject to $2\frac{1}{2}$ per cent. trade discount and $2\frac{1}{2}$ 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		Seconds		Best		Best		t	Seconds					
	£	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
Header, glazed one end Double stretcher,	23	10	0	21	10	0	25	10	0	29	0	0	22	10	0
glazed two sides Double header,	32	10	0	30	10	0	34	10	0	38	0	0	31	10	0
glazed two ends Quoin, glazed one	29	10	0	27	10	0	31	10	0	35	0	0	28	10	0
side and one end	30	10	0	28	10	0	32	10	0	36	0	0	29	10	0

Limes and Sand

				1-ton lots	o-ton lots
Lime, greystone			per ton	43/-	37/6
Lime, chalk			per ton	43/-	37/6
Lime, blue Lias (including	paper	bags)	per ton	47/-	42/6
Lime, hydrated (including	paper	bags)	per ton	47/-	42/6
Washed pit sand			per yare	d cube	7/9

(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	157/6
D.P.C. slates, size 14" ×	41"	 	per 1,000	61/3
*Ledkore D.P.C. Grade A	١	 per	foot super	5d.
*Ledkore D.P.C. Grade I	3	 per	foot super	61d.
*Ledkore D.P.C. Grade (per	foot super	8d.

 ${}^{\bullet}$ Trade discount 5 per cent. and cash discount 5 per cent. Prices include delivery on minimum of £4 orders.

	0" 0"	0" 0"	0" 0"	***	
Earthenware airbricks:	a × 3.	9 × 6.	9. × 9.	12°×9	" 14"×9"
red, blue, vitrified and buff terra cotta each	-/8	1/4	2/4	4/-	6/8
	9"×3"	9"×6"	9"×9"	12"×6	" 12"×9"
Black cast iron, School Board pattern airbricks					
per doz.	3/-	5/6	11/-	11/-	20/-
per doz. 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/-
	1' 0"	1' 6"	2' 0"	2' 6" 8	3' 6" 5' 0"
Buff terra cotta chimney pots each Fireclay per cwt.	2/6	3/-	4/4	5/9	13/4 22/6
Wall minforcoment suppli	ad in eta	ndard r	alle cons	toining 0	" wonds lin

Wall reinforcement supplied in standard rolls containing 25 yards lin. 2" wide black japanned per roll 2/1 Greater widths pro rata $2\frac{1}{2}$ " wide galvanized ... per roll 3/2 price carriage paid on $2\frac{1}{2}$ " wide black japanned per roll $2/7\frac{1}{2}$ croters of £5. Discounts $2\frac{1}{2}$ " wide galvanized ... per roll $3/10\frac{1}{2}$ for quantities.

Partitions

		2"	21"	3"	4"
Breeze	 per yard super	1/31	1/51	1/8	2/3
Clay tiles	 per yard super	2/3	2/6	2/9	3/1
Pumice	 per yard super	2/8	3/-	3/6	4/-
Plaster	 per yard super	2/3	2/9	3/3	4/-

BRICKLAYER—(continued)

Shepwood Partition Bricks size $9'' \times 2_8'''$ and $2\frac{1}{2}''$ on bed. Terms, as for Glazed Bricks

Prices per 1,000 except where stated per brick			ar		-		C	rear and ron	m)the olou			All	rs
	1	Best	t	Se	con	ds		Bes	t	1	Best		Se	con	ds
Double stretcher, glazed two sides Single stretcher, glazed one side	32	10	0	30	10	0	34	10	0	38	s. 0	0	31	10	(
	1	Sael	n	1	Eacl	h]	Eac	h	1	Eacl	h	I	Cael	n
Round end glazed two sides and one end		-/10)1/2		-/10)		1/0	1 2		1/0	Į.		-/10) 1/2

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	3	* *	each	1/-	1/8
Terminal and cap			per set	6/9	11/6
Middle terminal and ca	p		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

12'' lengths .. per 1.000 67/6 92/6 120/- 210/- (Delivered in full loads Central London Area.) Pipes in 12" lengths

Salt Glazed Stoneware Pipes and Fittings

					-94	4.5	29
Pipes (2' lengths)				each	1/8	2/6	4/6
Bends, ordinary				each	2/6	3/9	
Single Junction, 2' 1	ong				3/4	5/-	9/-
Yard Gulley, withou	it gratii	ng		each	6/3	6/101	11/3
Ordinary round or	square	Grati	ng,				
painted				each	-/71	1/3	2/6
Ordinary round or	square	Grati	ng,				-/-
galvanized				each	1/01	2/1	4/41
Extra for Inlets, ho					1/6		1/6
Extra for Inlets, ve					2/3		2/3
Intercepting Trap						-1-	-10
Stopper				each	17/6	22/6	37/6
Grease and mud int							/-
silt and grease fo	r 6", 9"	and I	12" d	rains,	with ir		20/-
grating, painted	:	. * *			* *		
Ditto, with iron grat	ing galv	anized			* *	each	$21/10\frac{1}{2}$

The above prices to be varied by the following percentages for the different qualities given. All subject to $2\frac{1}{2}$ per cent. cash discount.

	British Standard	Standard Tested
Orders for 2 tons and over		Plus 5%
Orders under 2 tons, 100 pieces upwards		Plus 221%
Orders under 2 tons, less than 100 pieces	Plus 7½%	Plus 32½%
Orders for 2 tons and over	Best Less 27½%	Seconds Subject to 15%
Orders under 2 tons, 100 pieces upwards Orders under 2 tons, less than 100 pieces		off the price of best quality for all sizes

CURRENT PRICES

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

D R A I N L A Y E R

AND M A 0 N

DRAINLAYER—(continued)	DRAINLAYER—(continued)
Cast Iron Drain Pipes and Fittings	Channels in Brown Glazed Ware
Socket and Spigot Pipes:— Weight Size 9 fts. 6 fts. 4 fts. 3 fts.	4" 6" 9"
(per 9 ft.) each each	Half round straight channels 24" long each 1/3 1/10 1/10 1/10 1/10 1/10 1/10 1/10
1.1.8 4" per yard 6/6 7/3 11/7 8/9	Half round straight channels 30" long each $-$ 4/2 $\frac{1}{4}$ Ditto, short lengths each 1/3 1/10 $\frac{1}{4}$
1.1.20 4" per yard 6/9 7/5 11/10 9/-	Half round ordinary channel bends each $1/10\frac{1}{2}$ $2/9\frac{3}{4}$ $5/0\frac{3}{4}$
2.0.6 6" per yard 10/- 11/11 19/3 15/4 4.0.2 9" per yard 18/2 23/9 41/3 31/5	Ditto, short each 1/10 2/9 4 —
Socket and Spigot Pipes :—	Ditto, long each 3/9 5/7½ 10/1½
Weight Size 2 fts. 18 ins. 12 ins. 9 ins.	Three-quarter round branch bends each $5/-7/6$ — $6'' \times 4''$ $9'' \times 6''$
(per 9 ft.)	Half round taper channels 24" long each 3/9 6/9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Half round taper channel bends each 4/84 8/54
2.0.6 6" each 11/6 — — —	The above prices are subject to the same discounts as those given for "Best" quality salt glazed stoneware pipes.
4.0. 2 9" each — — — — —	for Best quanty sait grazed stoneware pipes.
Tonnage Allowances :	Manhole Covers
Orders up to 2 tons nett. Orders 2 to 4 tons less $2\frac{1}{2}\%$	$24'' \times 18''$ single seal for foot traffic. (Weight
Orders 4 tons or over less 5%	0.3.0 in lots of 24) each 12/- 23/3
4" 6" 9"	$24'' \times 18''$ single seal for light car traffic.
Bends each $6/3$ $12/10$ $40/7\frac{1}{2}$ Single junctions each $11/ 22/ 70/11$	(Weight 2 cwt. in lots of 24) each 35/- 61/6
Intercepting traps each 37/6 48/3 137/6	24" × 18" Wood Block pattern. For road traffic. (Weight 3 cwts.) each Coated 55/9
Gulleys ordinary trapped each 15/	Fine Cast Galv.
Extra for inlet 4" each 4/3 — —	Cast step irons, 13½" long, 6" wide, 9" in wall,
Grease Gulley trap each 117/6 — — H.M.O.W. large socket gulley trap	approximate weight $5\frac{1}{2}$ lbs. each per dozen $12/6$ $20/6$ $4''$ $6''$
with 9" gulley top and heavy	Galvanized fresh air inlets with cast brass
grating and one back inlet each 23/9 42/9 —	fronts (L.C.C. pattern) each 5/6 20/3
Cast Iron Inspection Chambers	
The larger figures below refer to the main pipes and the smaller	MASON
figures to the branches	Yorkstone
$4'' \times 4'' 6'' \times 4'' 6'' \times 6'' 9'' \times 6''$	Building quality Robin Hood and Woodkirk Blue Stone.
Straight chambers with two branches one side each 56/3 66/10 78/9 153/9	Blocks scrappled, random sizes per foot cube 4/6
Straight chambers with three	Add for blocks to dimension sizes per foot cube 6d. (each
branches in all each 66/3 76/10 91/3 166/3	dimension) Templates with sawn beds, edges rough (up to 4 ft. super
Straight chambers with four	and not over 2' 6" long) per foot cube 5/-
branches in all each 76/3 87/10 103/9 178/9 Straight chambers with three	Templates with sawn beds, sawn one edge per foot cube 6/-
branches one side each 71/3 88/9 101/3 —	Templates with sawn beds, sawn two edges per foot cube 7/-
Straight chambers with four	Prices f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 6-ton loads.) 18/3
branches in all each 81/3 98/9 113/9 —	
Straight chambers with five branches in all each 91/3 108/9 126/3 —	Ancaster Stone
Straight chambers with six	Freestone, random blocks per foot cube 3/6
branches in all each 101/3 118/9 138/9 —	Brown weather bed stone selected for polishing all brown blocks per foot cube 8/-
Straight chambers with four	Brown and blue weather bed stone
branches one side each 93/9 111/3 133/9 — Straight chambers with five	selected for polishing per foot cube 7/-
branches in all each 103/9 108/9 146/3 —	Prices f.o.r. Ancaster, railway rate to London Station approxi-
Straight chambers with six	mately 11½d. per foot cube (minimum 6-ton loads).
branches in all each 113/9 131/8 158/9 — Straight chambers with seven	White Mansfield Stone
branches in all each 123/9 141/3 171/3 —	Random blocks (yellow bed) for dressings per foot cube 4/-
Straight chambers with eight	Random blocks (hard middle bed) for steps, pads, pavings and copings per foot cube 3/6
branches in all each 133/9 151/3 183/9 —	pavings and copings per foot cube 3/6 Prices f.o.r. Mansfield, railway rate to London station,
The branches to the above are at 135° 4" 6"	6 ton lots per foot cube 1/2
Extra for branches between 135° and 180° each 7/6 7/6	Bath Stone
Extra for branches between 90° and 135°	Random blocks, delivered railway trucks, Paddington or
other than standard angles each $6/3$ $6/3$ $4'' \times 4''$ $6'' \times 4''$ $6'' \times 6''$	South Lambeth per foot cube 2/102
Curved chambers, no branch 90°-112½°	
each 26/10 — 38/2	Portland Stone
Curved chambers, no branch 135° each 26/10 — 38/2	Whitbed, in random blocks of 20 feet cube average,
Curved chambers, one branch 135° each $33/9$ $48/9$ $55/-$ Curved chambers, two branches 135° each $40/8$ $65/8$ $76/3$	delivered railway trucks Nine Elms, South Lambeth or Paddington per foot cube 4/5
Channels in White Glazed Ware (Unselected Quality)	Basebed—add to the above per foot cube -/3
4" 6" 9"	For every foot over 20 ft. cube average—add per foot cube -/1
Half round straight channels, $6''$ long each $2/4$ $3/2$ $5/3$ Half round straight channels, $12''$ long each $3/3$ $4/5$ $6/11$	For every foot over 30 ft. cube average—add per foot cube -/01
Half round straight channels, 12 long each 4/- 5/3 8/5	3" Thick Plain Marble Wall Linings
Half round straight channels, 24" long each 4/8 6/4 10/6	Roman Travertine per foot super 5/-
Half round straight channels, 30" long each 5/10 7/11 13/2	Golden Travertine per foot super 6/3
Half round straight channels, 36" long each 7/- 9/6 15/9 Half round ordinary or long channel bends	Roman stone per foot super 4/6 Hopton-wood stone per foot super 5/-
each 8/5 12/11 21/-	Second statuary per foot super 4/6
	Sicilian per foot super 4/-
Half round ordinary or short channel bends	Diction Per root super a
Half round ordinary or short channel bends each 6/- 8/5 —	
Half round ordinary or short channel bends each 6/- 8/5 — Three-quarter round ordinary branch bends	Artificial Stone
Half round ordinary or short channel bends each 6/- 8/5 —	Artificial Stone $6'' \times 3''$ Copings and sills per foot run $1/6$ $6'' \times 6''$ Copings and sills per foot run $2/4$
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	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
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	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Half round ordinary or short channel bends each Three-quarter round ordinary branch bends each 8/1 11/8 — Three-quarter round ordinary branch bends, midgets	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
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	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

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

TO BE CONTINUED IN NEXT ISSUE

MASON, SLATER, TILER AND ROOFER, AND CARPENTER

MASON—(continued)	SLATER, TILER AND ROOFER—(continued)
Reconstructed Stone to match Natural Stone	Westmorland Green Slates
Sills, lintols, coping, cornices, ashlar, etc., average size	Bests, 24" to 12" long.
per foot cube 11/-	Proportionate widths Computed
Window sills, $9'' \times 3''$ section per foot run $2/1$, $7'' \times 3''$ section per foot run $2/-$	Price cover in
Slate Slabs, cut to size and Planed	per ton sq. yds.
1" 1½" 1½"	Random sizes.
Not exceeding 4' 6" long or 2' 3" wide per foot super 3/1 3/4 3/11	No. 1 Buttermere fine light green 240/- 30
,, 6' 6" long or 3' 3" wide	No. 2 ,, light green (coarse grained) 215/- 27-28
per foot super $3/9$ $4/1$ $4/10$ Exceeding 6' 6" long or 3' 3" wide	No. 5 ,, olive green (coarse
per foot super 4/1 4/6 5/2	grained) 197/- 25-27 No. 5 Medium green 197/- 25-26
Rubbed faces per foot super -/5 -/5 -/6 ,, edges per foot run -/4 -/4 -/5	No. 7 Elterwater fine light green 216/- 27-28
	No. 15 Tilberthwaite fine light green 214/- 26-28 No. 16 ,, light green (coarse
Combined Slate Cills and Window Boards for Metal Windows Straight Cills Circular Cills for C.O.P. Frames	grained) 202/- 25-27
Window Wall thickness Radius External reveals	Prices include for delivery to any station, minimum 6-ton truck loads.
Width 9" 11" $13\frac{1}{2}$ " 2" $4\frac{1}{2}$ " 1' 8" $4/-$ 4/8 $5/8$ 2' $4\frac{1}{2}$ " $21/ 24/-$	Asbestos-cement
3' 3\frac{1}{4} \text{8} \frac{7}{4} \text{8} \frac{10}{4} \text{2}' 7\frac{1}{4}'' \text{25} \begin{array}{c} \text{28} \end{array}	6" corrugated
$4' 10\frac{1}{2}'' \dots 10/6 12/3 14/10 2' 10\frac{1}{4}'' \dots 30/- 33/3$	sheets, grey per yard super 2/11 Standard 3" corrugated
SLATER, TILER AND ROOFER	sheets, grey per yard super 2/72
Best Bangor Slates	Slates:— $15\frac{3}{4}'' \times 7\frac{7}{8}''$ grey per 1,000 £6 16 3
£ s. d.	$15\frac{3}{4}$ " $\times 15\frac{3}{4}$ " diagonal, grey per 1,000 £12 18 6
24" × 12" per 1,000 actual 33 6 6 22" × 12" per 1,000 actual 27 19 0	$15\frac{7}{4}$ " \times $15\frac{7}{4}$ " diagonal, russet or brindled per 1,000 £16 6 6 Pantiles.
22" × 11" per 1,000 actual 25 4 9	Large russet brown per 1,000 £19 8 fl
20" × 12" per 1,000 actual 24 14 6 20" × 10" per 1,000 actual 21 15 5	Prices are for minimum two-ton loads.
18" × 12" per 1,000 actual 20 19 3	Canadian cedar wood shingles per square 32/- (normal
18" × 10" per 1,000 actual 17 4 0 18" × 9" per 1,000 actual 15 11 9	quantity).
16" × 12" per 1,000 actual 17 14 9	Prices include for delivery to nearest railway station in England
16" × 10" per 1,000 actual 15 11 9 16" × 9" per 1,000 actual 13 19 6	but vary with quantity.
16" × 8" per 1,000 actual 13 19 6 16" × 8" per 1,000 actual 12 1 11	CARPENTER
Prices include for delivery to site in lots of 1,000 and upwards.	Carcassing Timber Prices are for Standards in one
Old Delabole Slates (f.o.r.)	delivery; when less than a Per Per
Standard sizes. Prices and computed weights per 1,200.	standard is required, or special standard foot cube lengths, add £1 per standard. £ s. d.
	4" × 11" Scantling 24 15 0 3/-
Grey medium gradings per 1,200 $597/ 366/-$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
ewts. 461 30	
	$2'' \times 11''$, 23 10 0 $2/10\frac{1}{4}$
Unselected greens (V.M.S.) per 1,200 672/- 413/- cwts. 55½ 36	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per 1,200 672/- 413/- cwts. 55 3 36	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per $1,200$ 672^7 $ 413/$ $-$ cwts. $55\frac{1}{3}$ 36 Random sizes. Prices per ton and computed covering capacities in squares per ton.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per 1,200 672 - 413 - 36 Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per $1,200$ 672^7 $413/$ 265 Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $24''/22''$ to $12''/10''$ Ordinary grey greens per ton $128/$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per 1,200 672^{7} $413/$ 36 Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $24''/22''$ to $12''/10''$ Ordinary grey greens per ton $128/$ 2^{8} covering cap.: per ton $(3''/12)$ 2^{8} squares	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per $1,200 \\ \text{cwts}$. $672^{7} - 413/- \\ 36$ Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $24^{r}/22^{r}$ to $12^{r}/10^{r}$ Ordinary grey greens per ton $2^{r}/32^{r}$ to $12^{r}/10^{r}/32^{r}$ Covering cap. : per ton $(3^{r}/32)$ apper ton $(4^{r}/32)$ 2.37 squares per ton $(4^{r}/32)$ 2.19 squares	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per $1,200$ 672^{7} $413/$ 36 Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $24'' 22'''$ to $12'' / 10''$ Ordinary grey greens per ton $ 28/$ $ 2\cdot 37$ squares per ton $ 4'' 129 $ $ 2\cdot 37$ squares $ 2\cdot 19 $ squares No. 2 Grading	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per 1,200 672 $- 36$ Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $24''/22'' \text{ to } 12''/10''$ Ordinary grey greens per ton $(3''/4)$ lap per ton $(3''/4)$ lap per ton $(4''/4)$ lap $(2\cdot3)^2$ squares $(2\cdot3)^2$ vo. 2 Grading $(24''/22''/4)$ lap $(24''/4)$ lap	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per 1,200 672^{7} $413/$ 36 Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $24'' 22'''$ to $12'' / 10''$ Ordinary grey greens per ton $23''$ per ton $23''$ squares per ton $23''$ squares $23''$ squares $23''$ squares $23''$ squares Weathering grey greens (V.M.S.) per ton $23''$ covering cap.: per ton $23''$ per ton $23''$ covering cap.: $25''$ squares	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Unselected greens (V.M.S.) per 1,200 672^{7} $413/$ 36 Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $24''/22''$ to $12''/10''$ Ordinary grey greens per ton $24''/22''$ to $12''/10''$ Covering cap. : per ton $(3''/4)$ lap $2 \cdot 37$ squares $2 \cdot 19$ squares Weathering grey greens (V.M.S.) per ton $24''/22''$ to $12''/10''$ Weathering grey greens (V.M.S.) per ton $24''/22''$ to $12''/10''$ Covering cap. : per ton $3''/4$ lap $2 \cdot 37$ squares $2 \cdot$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2" × 11" "
Unselected greens (V.M.S.) per 1,200 672^{7} $413/$ 36 Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $24''/22''$ to $12''/10''$ Ordinary grey greens per ton $128/$ 128	2" × 11" "
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2" × 11" "
Unselected greens (V.M.S.) per 1,200 $\frac{672}{55}$ $\frac{413}{36}$ Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $\frac{24''}{22''}$ to $\frac{12''}{10''}$ Ordinary grey greens per ton $\frac{128}{-}$ $\frac{128}{2}$ 19 squares per ton (4" lap) $\frac{2 \cdot 37}{22''}$ squares $\frac{128}{2}$ 19 squares Weathering grey greens (V.M.S.) per ton $\frac{139}{2}$ 2.55 squares $\frac{139}{2}$ 2.08 squares Weathering greens (V.M.S.) per ton $\frac{24''}{22''}$ to $\frac{12''}{10''}$ 139 $\frac{24''}{22''}$ to $\frac{12''}{10''}$ 139 $\frac{24''}{22''}$ 22'' squares $\frac{24''}{22''}$ 10'' 149 $\frac{24''}{22''}$ 10'' 12'' 10'' 13'' 12'' 10''' 12'' 10''' 12'' 10''' 12'' 10''' 12'' 10''' 12'' 10''' 12'' 10''' 12'' 10'	2" × 11" "
Unselected greens (V.M.S.) per 1,200 $\frac{672}{55\frac{1}{3}}$ $\frac{413}{36}$ Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $\frac{24'' 22''' 10'' 10''}{2^2 10^2}$ Ordinary grey greens per ton $\frac{24'' 22'' 10'' 10''}{2^2 10^2}$ Per ton (3" lap) per ton $\frac{24'' 22'' 10'' 10''}{2^2 10^2}$ Weathering greens (V.M.S.) per ton $\frac{24'' 22'' 10'' 10''}{2^2 10^2}$ Weathering greens (V.M.S.) per ton $\frac{24'' 22'' 10'' 10''}{2^2 10^2}$ Weathering greens (V.M.S.) per ton $\frac{24'' 22'' 10''}{2^2 10^2}$ Weathering greens (V.M.S.) per ton $\frac{24'' 22'' 10''}{2^2 10^2}$ Weathering greens (V.M.S.) per ton $\frac{24'' 22'' 10''}{2^2 10^2}$ Weathering greens (V.M.S.) Per ton $\frac{25}{10^2}$	2" × 11" ; 23 10 0 2/16\frac{1}{6}
Unselected greens (V.M.S.) Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading 24"/22" to 12"/10" 128/- 2.37 squares 2.19 squares Weathering grey greens (V.M.S.) Covering cap.: per ton (3" lap) per ton (4" lap) Weathering grey greens (V.M.S.) Covering cap.: per ton (3" lap) per ton (4" lap) 2.25 squares 2.08 squares No. 2 Grading 24"/22" to 12"/10" 139- 2.25 squares No. 2 Grading 24"/22" to 12"/10" 149- 2.25 squares No. 2 Grading 24"/22" to 12"/10" Weathering greens (V.M.S.) per ton (3" lap) per ton (4" lap) Rustic reds (25%) and weathering greens	2" × 11" "
Unselected greens (V.M.S.) per 1,200 $\frac{672}{55\frac{1}{3}}$ $\frac{413}{36}$ Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $\frac{24'' 22'''}{22'''}$ to $\frac{12''}{10''}$ Ordinary grey greens per ton $\frac{24'' 22'''}{22'''}$ to $\frac{12''}{10''}$ Per ton $\frac{24'' 22'''}{22'''}$ to $\frac{12''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{24'' 22'''}{22'''}$ to $\frac{12''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{3''' 22'''}{22}$ to $\frac{12''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{3''' 22'''}{22}$ to $\frac{12'''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{3''' 22'''}{22}$ to $\frac{12'''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{3''' 22''''}{22}$ to $\frac{12'''}{10''}$ Rustic reds (25%) and weathering greens (V.M.S.) per ton $\frac{3'''' 22''''}{22''''}$ to $\frac{12'''}{10''''}$ Rustic reds (25%) and weathering greens $\frac{174}{2}$ Covering cap. : per ton $\frac{3'''' 22''''}{36}$	2" × 11" "
Unselected greens (V.M.S.) per 1,200 $\frac{672}{55}$ $\frac{413}{36}$ Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $\frac{24''}{22''}$ to $\frac{12''}{10''}$ Ordinary grey greens per ton $\frac{128}{2}$ $\frac{128}{2}$ · $\frac{2}{37}$ squares per ton $\frac{3''}{4}$ lap per ton $\frac{3''}{4}$ per	2" × 11" "
Unselected greens (V.M.S.) per 1,200 $\frac{672}{55\frac{1}{3}}$ $\frac{413}{36}$ Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $\frac{24'' 22'''}{22'''}$ to $\frac{12''}{10''}$ Ordinary grey greens per ton $\frac{24'' 22'''}{22'''}$ to $\frac{12''}{10''}$ Per ton $\frac{24'' 22'''}{22'''}$ to $\frac{12''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{24'' 22'''}{22'''}$ to $\frac{12''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{3''' 22'''}{22}$ to $\frac{12''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{3''' 22'''}{22}$ to $\frac{12'''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{3''' 22'''}{22}$ to $\frac{12'''}{10''}$ Weathering greens (V.M.S.) per ton $\frac{3''' 22''''}{22}$ to $\frac{12'''}{10''}$ Rustic reds (25%) and weathering greens (V.M.S.) per ton $\frac{3'''' 22''''}{22''''}$ to $\frac{12'''}{10''''}$ Rustic reds (25%) and weathering greens $\frac{174}{2}$ Covering cap. : per ton $\frac{3'''' 22''''}{36}$	2" × 11" "
Unselected greens (V.M.S.) per 1,200 672 - 413 - 36 Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading 24" 22" to 12" 10" Ordinary grey greens per ton (3" lap) 24" 22" to 12" 10" Per ton (4" lap) 2.37 squares Veathering grey greens (V.M.S.) per ton (3" lap) 2.25 squares Per ton (4" lap) 2.25 squares Weathering greens (V.M.S.) per ton (4" lap) 2.25 squares Weathering greens (V.M.S.) per ton (3" lap) 2.25 squares Per ton (3" lap) 2.25 squares No. 2 Grading 24" 22" to 12" 10" 139 2.25 squares No. 2 Grading 24" 22" to 12" 10" 149 2.25 squares No. 2 Grading 24" 22" to 12" 10" 24" 22" to 12" 10" Rustic reds (25%) and weathering greens (V.M.S.) per ton (3" lap) 2.25 squares Per ton (3" lap) 2.25 squares 2-25 squares	2" × 11" "
Unselected greens (V.M.S.) per 1,200 $\frac{672}{55}$ $\frac{413}{36}$ Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $\frac{24'' 22''' \text{ to } 12'' 10''}{24'' 22''' \text{ to } 12'' 10''}$ Ordinary grey greens per ton $\frac{128}{2}$ $\frac{128}{2}$ $\frac{1}{2}$	2" × 11"
Unselected greens (V.M.S.) Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading 24"/22" to 12"/10" 128/- 2 · 37 squares 2 · 19 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2 · 25 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2 · 25 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2 · 25 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2 · 25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2 · 25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2 · 25 squares No. 2 Grading 24"/22" to 12"/10" Rustic reds (25%) and weathering greens (V.M.S.)	2" × 11"
Unselected greens (V.M.S.) per 1,200 $\frac{672}{55\frac{1}{3}}$ $\frac{413}{36}$ Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading $\frac{24'' 22''' \text{ to } 12'' 10''}{128}$ Ordinary grey greens per ton $\frac{128}{2}$ Per ton (3" lap) $\frac{24'' 22''' \text{ to } 12'' 10''}{2 \cdot 25 \text{ squares}}$ Weathering grey greens (V.M.S.) per ton $\frac{139}{2}$ Covering cap.: per ton $\frac{3''' \text{ lap}}{2}$ Weathering greens (V.M.S.) per ton $\frac{3'''' \text{ lap}}{2}$ Weathering greens (V.M.S.) per ton $\frac{3'''' \text{ lap}}{2}$ Per ton $\frac{3''''' \text{ lap}}{2}$ Per ton $\frac{3'''' \text{ lap}}{2}$	2" × 11" "
Unselected greens (V.M.S.) Random sizes. Prices per ton and computed covering capacities in squares per ton. No. 1 Grading 24"/22" to 12"/10" 128/- 24"/22" to 12"/10" 128/- 2-19 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 139/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10" 149/- 2-25 squares No. 2 Grading 24"/22" to 12"/10"	2" × 11"