THE

ARCHITECTS'

JOURNAL

THE ARCHITECTS' JOURNAL, WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER, IS PUBLISHED EVERY WEDNESDAY BY THE ARCHITECTURAL PRESS (PROPRIETORS OF THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE), 9 QUEEN ANNE'S GATE, WESTMINSTER, S.W.1.

NEXT WEEK

we shall illustrate one of the most interesting religious edifices built in Europe during recent years, the new mosque for Mohammedans in Paris. There will also be plans and photographs of Mr. W. H. Ansell's new almshouses for the Butchers' Benevolent Institution at Hounslow, of which the central block has just been completed. Another interesting feature will be Mr. Henry W. Nevinson's second and concluding article on *Architects and the Next War*.

THE ANNUAL SUBSCRIPTION RATES ARE AS FOLLOWS:

AT ALL NEWSAGENTS AND BOOKSTALLS	£1 6 0
BY POST IN THE UNITED KINGDOM.....	£1 3 10
BY POST TO CANADA.....	£1 3 10
BY POST ELSEWHERE ABROAD.....	£1 8 6

SINGLE COPIES, SIXPENCE; POST FREE, SEVENPENCE. SPECIAL NUMBERS ARE INCLUDED IN SUBSCRIPTION; SINGLE COPIES, ONE SHILLING; POST FREE, 1S. 2D. BACK NUMBERS MORE THAN THREE MONTHS OLD (WHEN AVAILABLE), ADD 1S. 6D. TO ABOVE PRICES.

SUBSCRIBERS CAN HAVE THEIR VOLUMES BOUND COMPLETE WITH INDEX, IN CLOTH CASES, AT A COST OF 10S. EACH. CARRIAGE IS EXTRA. A USEFUL BINDER, ALLOWING THE COPIES TO OPEN FLAT FOR READING, COSTS 4S. 6D. POST FREE.

9 Queen Anne's Gate, Westminster, London, S.W.1
TELEPHONE: VICTORIA 6936 (OWN EXCHANGE)
TELEGRAPHIC ADDRESS: BUILDABLE, PARL, LONDON

WEDNESDAY, JANUARY 13, 1926. NUMBER 1619: VOLUME 63

PRINCIPAL CONTENTS

The Index to Advertisers will be found on page iv

CHRISTIAN BARMAN, *Editor.*

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 to him at or without his invitation.

RENDERINGS OF ARCHITECTURE

Selected and annotated by Dr. Tancred Borenius.

ii. Gian Paolo Pannini (1692-1765),
Roman Ruins.

In its most typical aspect the work of Pannini displays an absolutely romantic worship of anything connected with classical Rome. Herein it reflects one of the main tendencies of his age, which was one of very enthusiastic enterprise in the field of archæological exploration and boundless admiration of the art of ancient Greece and Rome. The buried city of Herculaneum had begun to yield its treasures early in the eighteenth century; somewhat later came the far-reaching activities of the great archæological Winckelmann, who settled at Rome in 1755; and not long afterwards the Neo-Classical movement carried the day in European art. The example of Pannini here reproduced is a striking illustration of the way in which no concern was felt about verisimilitude in the romantic archæological rhapsodies then so much in vogue; for the picture brings before us a juxtaposition of edifices—e.g. the Column of Trajan, the Colosseum, the Temple of Vesta at Tivoli, the Cestius pyramid—which, in reality, are situated very far apart. Some well-known examples of antique statuary are also introduced to heighten the "classical" note; nor is the heroic touch lacking in the human actors in the scene. [Private Collection.]

THE ARCHITECTS' JOURNAL

Wednesday, January 13, 1926

THE SUPERFLUOUS ARCHITECT

WHEN an architect is described as a bad architect it hurts him very much, but when he is dubbed " superfluous " he is quite indifferent. The fact is that he is so familiar with the arguments which would establish his redundance that they frighten him no longer. But although he is no longer frightened by them, he does well to take heed each time that the old arguments are trotted forth, and think again whether they perchance contain some truth which may be profitable to him. The immediate occasion for this act of reflection is provided by an article by Mr. Eric Gill in that distinguished periodical *Pax: The Quarterly Review of the Benedictines of Caldey*. There are two ways of attempting to discredit the architect: the critic may say that great architecture has never been produced by architects, but only by builders and craftsmen. This was the contention of the late Mr. March Phillips, who was fortified in that opinion by a study of the writings of Ruskin and William Morris. But Mr. Eric Gill adopts a different and bolder line of attack; he is ready to abandon the word " architecture," with all its cultural associations, and claims that there is something which he calls building superior to architecture. That Mr. Gill is making a tactical error in so doing is not our affair. It may be pointed out, however, that as words acquire their meaning, not through the caprices of individuals, but through a general consensus of opinion, it is quite beyond the competence of Mr. Gill or anybody else to exalt the word " building " so that in common estimation it has a greater spiritual content than the word " architecture." But this is merely a question of terminology which does not affect the degree of truth which is contained in Mr. Gill's observations. A few of these latter are quoted here, in the hope that no injustice will be done to them through their being taken out of their context. " Architecture is the imposition (hence the word ' imposing ') upon building of the notions of building possessed by the architect and favoured by his clients," and, again, he says: " Architecture aims first at beauty; goodness and truth are secondary considerations. In building you look after goodness and truth, knowing that beauty can take care of herself, and she does take care of herself. Even the Forth Bridge, which is but the building of mechanics under the direction of mathematicians, is beautiful because, being seen, it gives delight to the intelligence in spite of its being, like the Pyramid of Cheops, the work of slaves, whereas Waterloo Bridge, although also the work of mechanics, was done under the direction of an architect, and does not so much please the intelligence as give pleasure to snobs."

This is all extremely depressing. It is noteworthy that a few days ago the London County Council received a further certificate of approval of its intention to destroy Waterloo Bridge from no less a person than Ruskin himself, whose strictures upon the bridge were gleefully quoted by a contributor to the *Times*. Perhaps some industrious person will cull from the pages of William Morris another sneering and contemptuous reference to this masterpiece.

The peculiar thing, however, is that while the architects can see elements of form, a beauty not only in Waterloo Bridge and the Forth Bridge, but in the medieval structures so much admired by Ruskin and Morris and their disciples, these latter are content to be sectarians who survey with hostile glances quite three-quarters of that sum total of architecture or building which the rest of mankind acknowledge to represent both beauty and genius. And after all, what is the alleged offence of the architect? Is it that he presumes to plan his buildings beforehand, and to determine its parts in every detail?

What a heinous crime this is to be sure! Mr. Eric Gill exclaims: " Behold our Lady of Chartres! No architect and no contractor considers her, yet Liverpool Cathedral in all its glory is not arrayed as she." Yet it is recorded that a certain building of even greater spiritual prestige than Chartres Cathedral was preceded by a plan, and a very precise one. To Moses in the Mount were addressed these words: " Let them make me a sanctuary that I may dwell among them. According to all that I have shown you after the pattern of the Tabernacle and the pattern of all the instruments thereof, even so shall ye make it." And there follows a long list, one might almost call it a specification, of the works required to be executed. Not the smallest liberty is given to the craftsman to express his individuality in any particular, and in order that this should be made doubly clear, at the close of the instructions the command is repeated: " See that thou make all things according to the pattern shown to thee in the Mount." For " pattern " read " plan," and the argument seems complete.

NEWS AND TOPICS

In the *Times* of December 28, 1925, a list of the ancient monuments which have been "scheduled" during the year under the 1913 Ancient Monuments Act was printed. This is the fifth list since the passing of the Act. I frequently come across a common misunderstanding as to the meaning of "scheduling." The power to "schedule" rests with the Ancient Monuments Board. When a building, an earthwork, or other monument has been scheduled, the owner is unable to make any alteration to it without informing the Board, which has then one month in which it may issue a "preservation order." If this order is not issued, the owner may proceed with what alterations demolitions, etc., he likes. When a "preservation order" is issued the law forbids such work to be done for eighteen months, during which time the Ancient Monuments Board refers the case to the Government, which can intercede and acquire the property for the nation. Should any man believe that a building ought to be "scheduled," he would be wise to proceed as follows (always remembering that only those buildings which are uninhabited or only inhabited by a caretaker are referred to in the Act). He would be well advised to write to the secretary of the Archæological Society of the county in which the monument is, and ask that body to recommend the Ancient Monuments Board to put it officially on the list; and at the same time he should send an accurate description of the building, with photographs.

* * *

The fifth list of scheduled monuments includes many fine bridges which the present passion for building new roads has threatened with demolition. Thus the activity of the Ministry of Transport is watched by the tactful officers of the Ancient Monuments Department of His Majesty's Office of Works. Among the bridges scheduled is the Clopton Bridge at Stratford-on-Avon, Fingle Bridge, Stopham Bridge, Crawford Bridge, and Bideford Bridge. The first-named, however, is to be spoiled in the very near future by having a new one built alongside of it, while the last-named has been subjected during the last two years to widening operations. Is it too much to ask that in the sixth list issued we can read "Waterloo Bridge"?

* * *

One of the latest buildings to enter the "begging list" is Durham Castle, which Sir Francis Fox tells us is in danger of collapsing into the river. Here, indeed, is a majestic pile redolent of grand and stirring history, which deserves, if ever a building did, to be honoured. Almost as soon as the subscription list opened there came a cheque for £2,500 from a native of the county who wishes to remain anonymous. The donor—who has spent many years abroad, and has, indeed, already left the country again—makes his gift as a tribute to the King. "I make my gift," he writes, "in the hope that it may be regarded as a little expression of tribute and loyal esteem from the heart of a citizen towards his King." The King incidentally is the Prince Palatine of the County of Durham, so that the tribute is particularly appropriate. Here, at any rate, is a method of showing loyalty in times of peace that is worthy of emulation.

Sir William Bull, M.P., in a letter to the Press, raises an important issue. He suggests a compromise that is certainly worthy of careful consideration. Many years ago Sir William was chairman of the L.C.C. Bridges Committee, a position for which he had qualified by having "learnt something as to how a great bridge across a river was designed and built." On the strength of this acquisition of useful knowledge, he now pertinently asks whether the L.C.C. have "put before the Port of London Authority the scheme of a bridge broad enough to contain six lines of traffic exactly on the site of Waterloo Bridge." He adds "that every bargee and lighterman who uses the river knows perfectly well that Waterloo Bridge—narrow as it is—is very difficult to navigate owing to the angle at which it is thrown across the river." Sir William believes that on the present site nothing but a suspension bridge similar to the bridges in New York is admissible, and that, in fact, the Port of London Authority would probably disapprove of a new arch bridge of the breadth proposed by the Council. This confronts the unhappy Council with a further formidable difficulty. Sir William gallantly suggests a way out. He proposes that Waterloo Bridge should be preserved frankly as a memorial, and the consequent erection of an entirely new traffic bridge at Charing Cross. Not at all a bad idea, but the more sensible the suggestion the less likely is its adoption by a Council that greeted the lethal resolution with cheers.

* * *

The Scottish Board of Health hope that work will commence next month on some of the 2,000 houses that the Government propose to build in Scotland, using alternative methods of construction. If there are no delays, due either to bad weather or to an industrial conflict, by Easter we shall know how far Mr. Baldwin's experiment in direct State action is justified, but those who prophesy that the houses will be completed in three months are too optimistic. Unfortunately, prejudice during the past fortnight has confused the main issues. There should, however, be general agreement that Mr. Baldwin and Sir John Gilmour are transparently honest and sincere in their desire to see the people of Scotland better housed; that the progress made in providing accommodation, even in the form of two-roomed tenements, is lamentably lagging north of the Tweed; and that methods of mass production, given a fair chance, can do something to expedite the manufacture and to accelerate the completion of houses, whether the materials used be concrete, timber, or steel.

* * *

These are the three fundamentals of the position, and the Government will be supported by the common sense of the nation if they proceed equitably. But out of the varied choice of alternative methods, Sir John Gilmour is to give an order through the Scottish National Housing Company to Messrs. G. and J. Weir for 1,000 houses made of timber and steel. What are the essential facts about this house? First, it is mainly a timber house, and has been wrongly called a "steel" house. Secondly, in spite of over a year's work, unlimited publicity, an unknown expenditure of capital, and the unwavering support of a strong Government, Lord Weir has only delivered 221 houses. Some of these are for private industrial concerns, but according to an official reply in Parliament, in spite of the incentive of a £200 subsidy for demonstration houses, only twenty-three have been completed in England and Wales for local authorities.

Thirdly, this extremely poor result cannot fairly be attributed to the opposition of the operatives to new methods. For over 2,000 of the Dennis-Wild steel-framed houses have been built; private enterprise is erecting pairs of Nissen-Petren houses with steel roofs in Edinburgh; Atholl steel houses are being erected not only in Scotland, but also in London, where Lord Weir has not yet delivered the proposed sample houses to the L.C.C.; 250 cast-iron houses, manufactured by mass production methods at Thorncliffe, near Sheffield, are being built at Derby; and concrete houses of many types may be seen in almost every town. In view of such facts Lord Weir cannot complain of a prejudice against alternative methods, even among his political opponents. After all, Mr. Wheatley when Minister of Health, and Mr. Arthur Greenwood, were the two men mainly responsible for the appointment of the Moir Committee, who devoted their first report to the Weir house, and now Mr. Greenwood, a man with considerable knowledge of the subject, declares that it "is a fraud and a failure." The trade unions, who are co-operating in the building of new types designed by the Duke of Atholl, Col. Nissen, and others, are hostile to Lord Weir, owing to his refusal, in splendid isolation, to agree to the normal trade conditions. In consequence, Mr. Coppock prophesies that, if the Government try to build Weir houses, there will be the biggest crisis in the building industry in 1926 that the country has ever known. His words might appear to be extravagant if they were not echoed by Mr. John Livingstone, the president of the Scottish Building Trades Federation, who voices the alarm of the employers.

* * *

The Dean of Canterbury, is, as those architects who attended the Town Planning Conference in that town last autumn were able to observe for themselves, a man of considerable vision and enterprise, and the news that his scheme for abolishing admission charges to the cathedral has been a financial success will have pleased everybody. It will be remembered that when the scheme was first propounded no difficulty was found in getting together the requisite number of guarantors. During the past week we have heard that the income derived between May 26 and September 30, 1926, from voluntary offerings and the sale of books, exceeded the visitors' fees collected during the same period in 1924. I am not altogether in favour of throwing everything under the sun open to the public free of charge, but if the principle of free admission is to be introduced at all (and no one could wish to rule it out *in toto*) it surely should be applied first of all to our ecclesiastical treasures. It may be an excellent thing to charge sixpence to people desirous of inspecting a gallery of pictures, or a mummy, or an aquarium, but there is something anomalous in having to put down one's money before being allowed to enter some part of a church, for all the world as though one were going in to witness a cinematograph performance or to examine the fattest lady in the world. The Dean has done a fine and a brave thing, and as acts of this kind do not always receive their proper reward in this world, his success should be a subject of general rejoicing.

* * *

It is a trebly welcome announcement that the Dean and Chapter of St. Paul's have accepted, as a memorial to the late J. S. Sargent, a crucifix designed by the artist himself. It is, no doubt, a noble work of art, affording further proof of the genius and versatility of Sargent, who, as Johnson said of Goldsmith, "touched nothing that he did not adorn." And its acceptance by the cathedral authorities is a sign of grace, or, in the current jargon, a graceful gesture. St. Paul's, with its pictures by Watts and Holman Hunt, its Henley bust by Rodin, and its Kitchener memorial by Reid Dick, is at length acquiring an art collection which should mitigate the scarcely veiled contempt of the foreign visitor accustomed in his own country to the close association of art and piety.

* * *

I had time for only a walk round at the Press view of the Sargent Exhibition at the Royal Academy on Monday but came away feeling that I had travelled far. Sargent managed to give the architecture he painted as much character as the faces—or rather, with that uncanny insight with which he saw the character of the woman in her figure or face, so did he draw out the soul which is in all great buildings. He gives us architecture which is indeed the architecture of Greece and Rome and the Renaissance, and not the artificial stage-work of Alma Tadema and the rest. Penrose, the G.O.M. of the R.I.B.A. (whose portrait by Sargent in the R.I.B.A. collection has been lent), would feel happy if he could know himself in the company of such things.

* * *

I notice on a back page of the *Architectural Review* for January an illustration of a decorative panel at Summit House (which is the name of Messrs. Austin Reed's new building in Red Lion Square, Holborn). The panel is frankly symbolical of the firm's trade, and the symbolism, consisting of socks, gloves, braces, and ties, is not too profound. This is as it should be. In the old days the oilman's shop had prominently above its window two large carboys,

WEDNESDAY, JANUARY 13.	*At the Edinburgh Architectural Association.* EIGHT p.m. Professor A. P. Laurie-M.A., D.SC., on Stone Decay.
MONDAY, JANUARY 18.	*At the Royal Institute of British Architects.* EIGHT p.m. Award of Prizes and Studentships. Criticism by H. S. Goodhart-Rendel, F.R.I.B.A., on the work submitted.
	At the Royal Society of Arts. EIGHT p.m. H. P. Shapland, A.R.I.B.A., on The Decoration of Furniture. (First lecture of a series of three.)
WEDNESDAY, JANUARY 20.	*At the Royal Society of Arts.* EIGHT p.m. H. Houlston Morgan, PH.D., B.SC., F.C.S., on Problems in Paint and Varnish Technology. Sir Frank Baines, C.V.O., C.B.E., will preside.
THURSDAY, JANUARY 21.	*At the Victoria and Albert Museum.* SIX p.m. G. P. Baker, on Printed Textiles.

A decorative panel from Summit House.

the barber's shop a pole. (These signs, however, have been growing of late rather scarce, as though men were ashamed of their trade.) As column and entablature grew from doorpost and lintel, it may be that from things like these the architecture of to-day will be found to have sprung.

* * *

The architectural problem involved in the defence of the civilian population against air attack seems almost an insoluble one—that is, if we are to accept Mr. Nevinson's prognostications of the fate of buildings and their inhabitants in the next war. And who can doubt that the tragic events, so brilliantly described by Mr. Nevinson, will indeed take place when a flotilla of aircraft comes on its cruel mission to a modern city with bomb and poison gas? Some critics might perhaps believe that even the description of such possibilities implies a disrespect to the League of Nations, and suggests that the signatories of the recent pact to abstain from the use of poison gas are capable of breaking faith in this matter. All of us have faith in the League, but, unfortunately, the fact remains that some nations are still outside the League, while others have as yet abstained from signing the pact. It is, therefore, but elementary prudence to encourage the consequences which will result should our nation be attacked by all the most deadly means of modern warfare. Moreover, remembrances of the last war are quite sufficient to convince us that when nations are fighting for their very existence, and passions are roused to the utmost limit, every weapon of offence, prescribed, or not prescribed, by treaty, will, in point of fact, be used. For when great outrages are committed vengeance assumes the guise of justice, and no human power could prevent those reprisals which would immediately follow if one of the belligerents were to use the terrible poison gases which even now are being distilled in laboratories of highly-civilized countries.

* * *

Not everybody, I think, has realized that the beginning of the new year marked the close of a quarter of a century. We do not have much opportunity these days to pause and look back, but the passing of the first twenty-five years of the nineteenth century is an occurrence which should give us a good excuse to do so for once in a while. The quarter-years have often been memorable ones, even architecturally; 1825 was by no means an uneventful year, and 1875 calls up memories other than Captain Webb's immortal conquest of the Channel, but it is probable that to most people the shadow of the Crystal Palace will lie rather heavily over the year 1850, though Stephenson's Britannia Bridge was opened in that year, which also saw the death of its designer, and of James Smith, the inventor of the modern system of drainage. Perhaps it may be said, however, that the Crystal Palace really belongs to 1850 after all, for it was on July 6 that the drawings were first given to the world in the pages of the *Illustrated London News*. What have been the most characteristic architectural events of 1925? I will give a prize of one guinea to the reader who cites, for each of the years 1900 and 1925, an important happening of such a kind as most clearly to show the distance travelled by English architects and architecture in the interval. Replies should reach me at the office of THE ARCHITECTS' JOURNAL, 9 Queen Anne's Gate, Westminster, not later than Thursday, January 21.

* * *

However one may disapprove of the modern tendency in the Arts, it seems hardly fair to condemn it off-hand, and it was good to hear Mr. Howard Robertson strike a blow for the principle, if not for its results, when he addressed the members of the A.A. on Monday evening, on the subject of the "Paris Exhibition, 1925." He quoted "The Revolt Against Civilization," by Mr. Lothrop Stoddart, where he refers to Futurism and Vorticism, as "being in fierce revolt against things as they exist, and a disintegrative, degenerative reaction toward primitive chaos." Mr. Robertson points out in answer that the return to the primitive is in effect merely a return to the starting point, from which will develop the fuller expression of our more complex civilization. The Arts had reached a state of ineptitude and pedantry which demanded a reconsideration of the fundamentals, and the present period is one of experiment and recapitulation, from which we shall presently emerge. The forms of expression used in the Paris Exhibition must not be regarded as comparable with other periods of design which have reached maturity, but as sincere expressions of dissatisfaction with the modern lethargy; and it must also be remembered that an exhibition provides so irresistible an invitation to research and experiment, that the forms will necessarily be of types, which, in themselves, are quite unsuitable to every-day conditions.

* * *

Headlines from an American paper on the day following the collapse of a reinforced concrete skeleton in course of erection:

UNDAUNTED, R. L. REISINGER BEGINS OVER.

"Put Her Up Again, Boys," His Command Upon Arrival Here.

WORKMEN START IN.

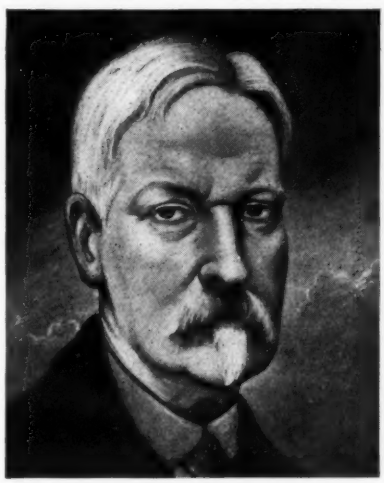
ASTRAGAL.

ARCHITECTS AND THE NEXT WAR

BY HENRY W. NEVINSON

[The following article by Mr. Henry W. Nevinson, and its sequel which will appear in our next issue, were promised in our leading article last week. The first article anticipates some of the developments that are likely to manifest themselves in the warfare of the future. In the next the author will suggest means whereby architects may help to protect the life of the community.—Editor, A.J.]

I AM not an architect, though my brother is. Nor am I a soldier, though as a war correspondent I have seen a good deal of wars in the last thirty years. But ever since the close of the Great War I have been reflecting from time to time upon the probable nature of that "next war" about which many are beginning to talk, and it appears to me that architects should reflect upon it too. For it threatens the destruction of all their work in our great cities, and especially in London, where they have lately been so active, as anyone who walks down Regent Street or haunts the City can perceive. And it is not only their work that will be threatened; the lives and property which their work is intended to protect from weather and robbery will be threatened at least equally, and probably more.



Mr. Henry W. Nevinson,
after a pastel drawing by C. R. W. Nevinson.

My reflections were rendered all the more serious, first, by a visit, at the invitation of the officers, to the fine factory of poison-gases at Edgewood, near Baltimore, where I found 101 chemists and a staff of 3,000 men perpetually working at experiments with various forms of disabling or deadly gas, such as phosgene, chloropicrin, dichlorethyl sulphide, tear-gas, mustard-gas, and "Lewisite" (acetylene with solution of arsenic trichloride), and able, as they told me, to turn out at the end of the last war 200 tons of deadly gas a day, which amount, no doubt, they could now largely increase. They were also experimenting upon new methods of defence, such as, among others, a gas-mask that could be swung on in three seconds (during the war the time allowed was a minimum of six seconds), and could be adapted for the use of women and children.

Again, my attention was called to the subject by Mr. J. D. S. Haldane's little book called *Callinicus; a Defence of Chemical Warfare*, in which that learned and witty author advocates the use of gas in warfare as an excellent substitute for the old-fashioned rifles and big guns, on the ground that many of the gases only disable for a time, and do not kill, but allow an attacking force to overcome the disabled enemy and occupy the position before his recovery is possible. In passing I may mention that, if I know the spirit of most men in action, a large proportion of the disabled would be killed off at once where the attacking force found them. And, thirdly, my reflections were stimulated by the speech made at Lincoln on October 16 of last year by our Air Minister, Sir Samuel Hoare. For after remarking, quite truly, that in the next war England would no longer be an island for defence, he is reported to have continued:

"If a European war ever broke out again our battles might no longer be fought upon foreign territory, nor our casualties be restricted to the regular forces. It is much more probable that the critical battles of the future will be fought over our great cities, and the chief sufferers will be the civilians, men, women, and children of our great towns. . In the whole of the late war only some 300 tons of bombs were dropped by enemy aircraft in this country. Air forces could to-day drop almost the same weight in the first twenty-four hours of war, and continue this scale of attack indefinitely."

The Air Minister went on to say that he need not dilate on this terrible and repulsive picture, nor need I dilate, but I think the civil population should be made to realize how terrible and repulsive the actual result would be.

For the present the dove of Locarno hovers over Western Europe, and all decent people pray that the welcome bird may continue her stationary flight. But though we were informed that the Great War was to end war, we now recall that prophecy with a melancholy smile. And if some hideous fate should bring war upon us again—war with any neighbouring Power, which we may call X—what would be our position? Let us assume (no difficult assumption) that X did not reduce her aircraft as we did after the last war, and has been steadily increasing it since. Our own Air Force is growing again, and no one doubts its skill and courage. It will, I suppose, be further strengthened by Sir Samuel Hoare's special reserve squadrons, which will act as Territorials of the Air. That is all very well, but, speaking in Cambridge last April, Air-Chief Marshal Trenchard observed that aeroplanes were "a shocking bad weapon of defence," though he thought them the only one. Their chief use, he said, would be to lower the *moral* of the enemy's people, apparently by destroying the enemy's capital and other cities. But while our airmen were engaged upon the laudable object of destroying Paris, or Berlin, or Leningrad, or Rome, the enemy planes would be simultaneously engaged upon destroying London, Leeds, Manchester, and other centres of our congested population.

Let us consider the case of London alone, just as an illustration. Within twelve, or at the most twenty-four, hours of the declaration of war the enemy's planes will be rushing and swooping over the whole metropolitan area. Probably they will begin by dropping explosive bombs of two kinds—shells that explode on immediate contact, and shells of "delayed action," timed to penetrate five or six solid stories before they explode. Incendiary bombs, which no amount of water will quench, will follow, and our common gasworks and electric light works will be burnt or exploded, leaving the city in total darkness at night, but for the fires of the burning houses and factories.

These enterprises will be followed or accompanied by the use of the most terrible instrument of war yet invented. For flights of aeroplanes will sweep over the blazing city and suburbs dropping bombs charged with poison gases of two main kinds—the kinds that stifle, choke, blind, and make to vomit, and the kinds that burn the skin and flesh and vitals, penetrating through any clothes or masks, and persisting, around the places where they fall, for days and weeks together. Side by side with these gas-planes will come others, swooping near the ground, and pouring thousands of bullets from machine-guns upon the bewildered and tormented population in our streets and squares.

The first instinct of the population will be to run. In the short intervals when I was in London during the war I witnessed two or three air-raids, and it was a horrible sight to watch the people, especially the crowding aliens of the East End, rushing to the Tube stations, trampling and tearing each other, and fighting for positions on the platforms or the stairs. What will be the panic when they smell and feel various poison-gases creeping over them, penetrating their houses, following them round corners, choking and burning them into disablement or death? As the Handbook recently issued to officers in the Chemical Warfare Section of the American Army rightly says:

"The first appearance of the faint white smoke of a gas-cloud will cause a stampede even in the most determined mob" (the Handbook contains instructions specially for dealing with mobs, not with national enemies). "The quickest way to appreciate the power which the presence of gas has upon a body of men is to picture the fear which a human being has of having his breathing interfered with by smothering or choking, and the instinctive dread this same human being has of losing his vision."

Besides that fear and instinctive dread, the human beings of London under attack would be overcome by the torture of burning gases which they could not possibly shake off. As at a Last Judgment, they would attempt to flee into the country, but the machine-guns would follow them. They would call upon the hills and the caves to shelter them, but with them they would carry the choking gases and the burning gas, which, even if they found cover in Tubes and tunnels, would hang for days around the entrances, forbidding them to emerge. We Londoners all remember the state of the Tubes after a few hours of air-raid; what will their condition be when the air-raids have continued day and night without intermission for a week or a month? During that time who will have fed the underground fugitives? What butcher or baker or milkman will have gone his accustomed rounds? Or who will convey supplies to the thousands wildly rushing through the open country or squatting in forlorn encampments? I have heard of a scheme to plant a cordon of troops round the city to prevent the fugitives from escaping into death by starvation instead of burning. Little do those who make such proposals know of human beings in panic.

[*To be concluded.*]

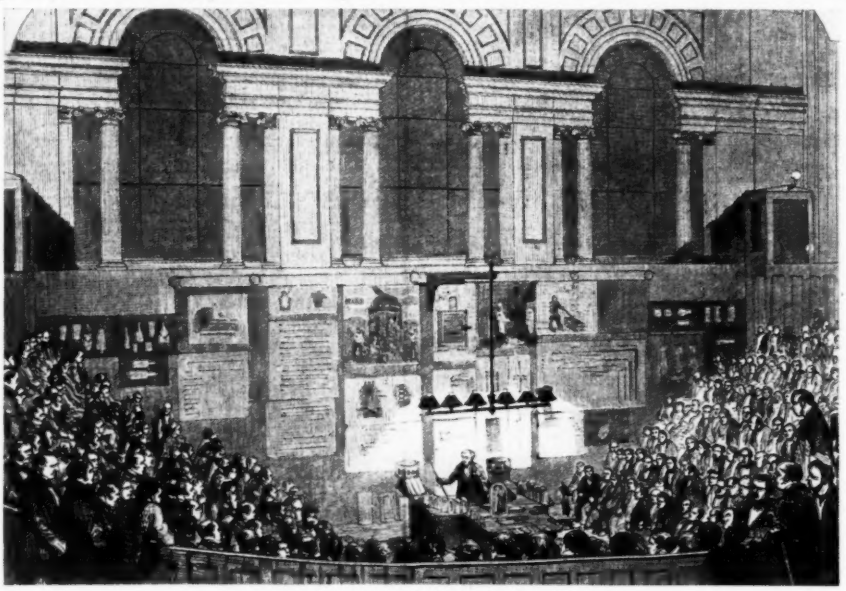
THE PASSING OF A MUSEUM

BY E. BERESFORD CHANCELLOR

THE Museum of Practical Geology will shortly be no more, and this fact, if the busy Londoner observes it recorded in the daily papers, will probably tell him for the first time that practical geology possessed a museum in our midst. When, however, he is informed that one of its façades is in Piccadilly, opposite Norman Shaw's hotel, and the other (where the entrance is) in Jermyn Street facing Jules, he will probably realize a dim consciousness of its existence, and will remark "Oh! is that the Museum of Practical Geology?"

Geologists are naturally busied with much subterranean labour; they are the human and learned moles that throw up for us the accretions of bygone ages, and so it is not, perhaps, inappropriate that their home for so many years, should have been thus disregarded until the dust of its falling debris marks its funeral pyre; and it is still more appropriate that that home should originally have existed in another secluded and unobserved spot—the remote backwater of Craig's Court where, too, beautiful Harrington House stands sadly and surely awaiting a like doom.

Now the museum is about to go, even those who do not know the difference between cretaceous and jurassic rocks, or whom fluorites and stalactites leave cold, will perhaps regret the loss of a landmark they never observed while it existed. This is the fate of such things of which it may almost be said that nothing in their life becomes them like the leaving of it.



An early meeting of the Geological Society.

Now the inevitable epitaph has to be written,

The Geological Museum: The Piccadilly façade.

and properly takes the form of some account of the origin and career of this geological headquarters.

It is just ninety years since Sir Henry De la Beche proposed to the then Chancellor of the Exchequer the formation of a museum which should contain specimens of the geological and mineralogical finds then being brought to light through the activities of the geological survey of the United Kingdom. The idea being approved of by the Government, collections were formed and first housed in a building, No. 6 Craig's Court, in 1837. In course of time, however, so largely did the specimens threaten to overflow this shrine, that it was found necessary to seek for some larger and more convenient home for them; and Sir J. Pennethorne was commissioned to design a special structure suitable for their accommodation and capable of holding the additions which it was obvious would be constantly made to the collection.

Pennethorne therefore designed the building for which a site between Jermyn Street and Piccadilly had been allocated. In doing this he kept in mind the application of geology to architecture, and constructed the Jermyn Street front partly of Anston stone and partly of Suffolk bricks,

the Piccadilly façade being built solely of the former; the entrance-hall he lined with Derbyshire alabaster; while the pillars in it were constructed of granite from Scotland, serpentine from Ireland, and limestone from Derbyshire, Devonshire, and elsewhere in England. Thus, the structure itself apart from its contents, affords a sort of illustration of the various workable stones to be found in our own land.

Both the façades possess a quiet dignity, which seems somewhat out of keeping with Piccadilly's otherwise rather flamboyant architectural efforts, and the sadly aimless nature of those in Jermyn Street. The entrance in the latter thoroughfare is one of the most exquisite things of the kind in London. Were it in Florence or Perugia, the tourist would be in raptures with it and Baedeker, licking his lips over a foreign name, would mark it with three stars as if it were a brand of cognac. As it is, it is passed unregarded; but it is the work of a man who ranks with the greatest decorative artists of any age—the supremely great Alfred Stevens. It is to be hoped that when the museum is razed to the ground, at least this beautiful feature will be preserved, and will be set up in the Victoria and Albert Museum, where the visitor, catching sight of its delicate tracery and superb balance, might suppose it the work of that great Renaissance, whose characteristics it exhibits, together with its contriver's own amazing artistry.

Behind the entrance-hall is the large lecture theatre, where one of our illustrations shows a lecture in course of delivery; while behind that again, with windows looking into Piccadilly, is the spacious and amply-stocked library, and the rooms of the directors and the secretary. Above, reached by a fine staircase, is the vast and beautifully lighted room, with a double row of galleries running round

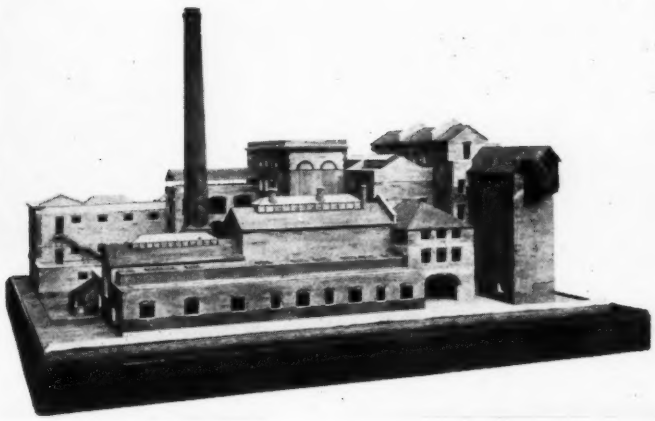
The Geological Museum. Above, the Jermyn Street façade; below, a detail of the entrance.

it, in which are placed every kind of metallurgical specimens, fossils, and minerals, it is possible to conceive; so that even the least scientific might well be fascinated by the beauty of their colouring, the strange and wonderful shapes many have, in the course of countless ages, attained; and above all, by their cumulative effect as exemplifying the amazing wonders which lie beneath the surface of the ground we tread so lightly and forgetfully.

Pennethorne's creation occupied some eleven years, and in 1851 (that well-omened year!) was opened by Prince Albert. Among the gradual accretion of objects, of which it is impossible here to say anything, may be mentioned the fact that the library of no fewer than 30,000 volumes, had been inaugurated in 1843 by Sir Henry De la Beche, who presented the whole of his own collection to the museum, a gift to which was added a similar bequest from Sir Roderick Murchison in 1871.

And now after being a landmark (though so often an overlooked one) in Jermyn Street and Piccadilly, for just on three-quarters of a century, the Museum of Practical Geology is to disappear, as the Egyptian Hall (that other home of mysteries) has disappeared. With it will go almost the last structure dating from Victorian days in Piccadilly, where the Burlington House of Banks and Barry, and the Arcade of Ware, clinging to its west side, will soon alone be able to recall those now almost historic days, and the Albany, of Chambers, shyly puts in its plea for a still earlier and more decorative period.

CURRENT
ARCHITECTURE
SECTION



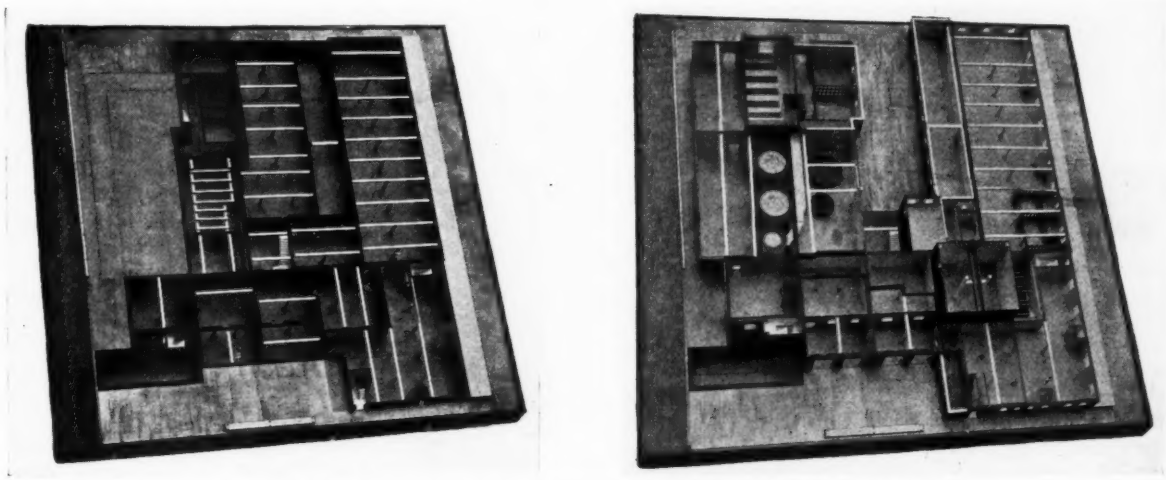
The river elevation.

A MODERN BREWERY

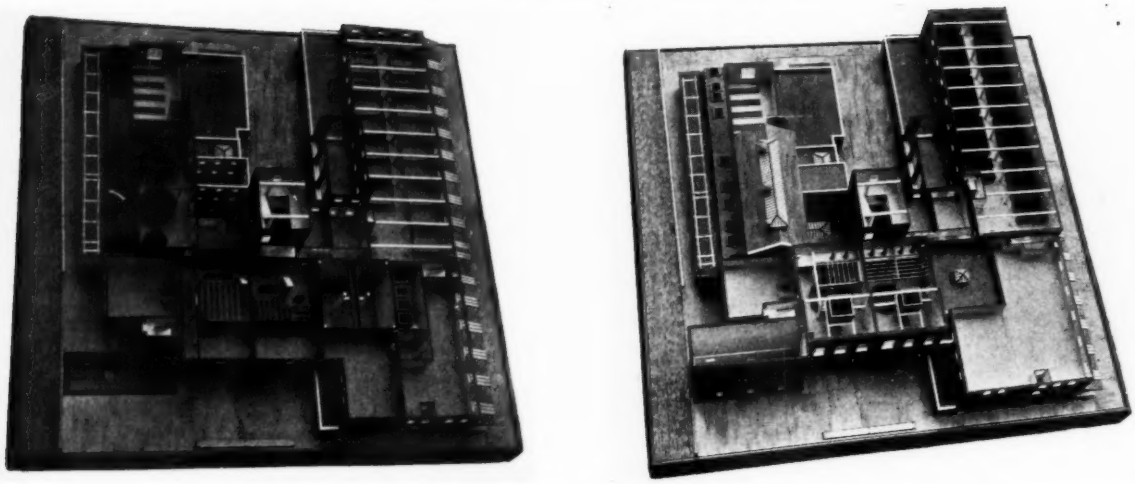
BY V. M. CHRISTY

Two main principles, which should inspire the design of all industrial building, are evident in the work of Messrs. Bishop and Etherington-Smith. One of these principles is that, before undertaking the design of a building for trade or manufacturing purposes, it is necessary for the architect to make himself acquainted with the business for which the building is required, not merely theoretically, but from the practical standpoint, " to learn the trade practically, so as to get into the mind of the client." But the architect has the advantage that he brings in fresh ideas from his general outside experience and his special knowledge of buildings of all kinds. The second principle is that it is necessary to " impress upon the people for whom the building is being designed that planning is the essential." Planning for organization, whether in new buildings or in reconstruction, is a special aim. Alongside of this, or rather, growing from it, comes a wide view of planning ahead. Provision for expansion is thus possible without entirely reconstructing the parts sufficient for present needs, although these immediate requirements are met in the meantime with completeness and efficiency.

The fact that the exercise of the second of these principles, planning for present and future organization, has been accepted by clients of deep-rooted trade and personal prejudices and traditions is evidence of the carrying out of the first principle, that of securing real " inside " knowledge of the industry concerned. Only thus can the confidence of experts in their own business be gained by the



Models of a new brewery at Wandsworth designed in 1907 for Messrs. Meux by Bishop and Etherington-Smith. On the left, the basement floor, comprising the cellars. On the right, the ground floor, comprising loading-bank, day store, boilers, coppers, and hop-backs.



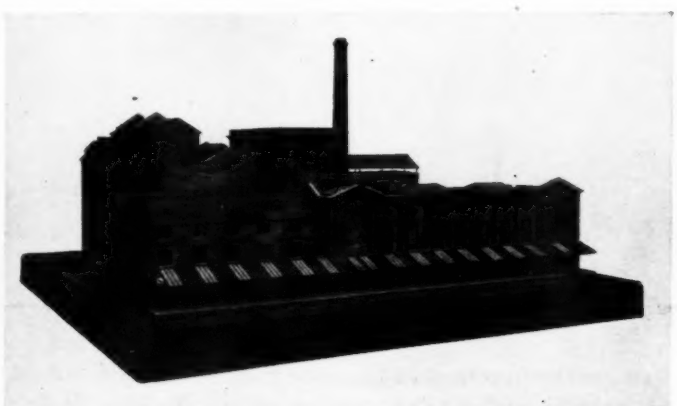
On the left, the first floor, comprising yeast backs, staging for mash tuns, coal bunkers, upper parts of boilers and coppers; on the right, the second floor, comprising fermenting tuns, bottling room, grist cases with mash tuns under, liquor heaters, and sugar store.

architect sufficiently for him to introduce innovations, however firmly he may be convinced himself of their value. As an instance of the thoroughness with which a trade may be learnt for the architects' purpose it may be mentioned that, before embarking upon the work of designing the important brewery of which the model is illustrated, Mr. Bishop, of Messrs. Bishop and Etherington-Smith, the architects, passed a considerable time in a small brewery, where, by personal participation in the processes involved, he gained that first-hand knowledge and actual experience which he regarded as essential. In the design for a complete new brewery for Messrs. Meux, the river-side site on which it was intended to build naturally determined the position of the boiler-house, power-house, etc., dependent on the coal usually arriving by water, although provision was also made for road-borne coal. The malt store was also placed conveniently for unloading from the river. The finished product, however, was expected to be taken out by road, except in the case of beer for export, which could be loaded on to barges. After the scheme represented by the model was got out, various changes supervened, and it was found necessary to abandon the idea of an entirely new brewery. Instead, a site was acquired already partly occupied by older brewery buildings. The case became then one of combined reconstruction and new building, offering opportunities for the exercise of ingenuity, but naturally lacking the homogeneity of a completely new lay-out.

The outstanding feature of these brewery buildings, both as first planned and as erected, is the extensive employment of ferro-concrete in place of older conventional materials, such as wood. At the top of the tower block of the brewery in Nine Elms Lane are vast " liquor " tanks of ferro-concrete, both for company's water and chilled water. The malt-silos are of the same material, with specially sloped bottoms to allow for the characteristic flow of the malt.

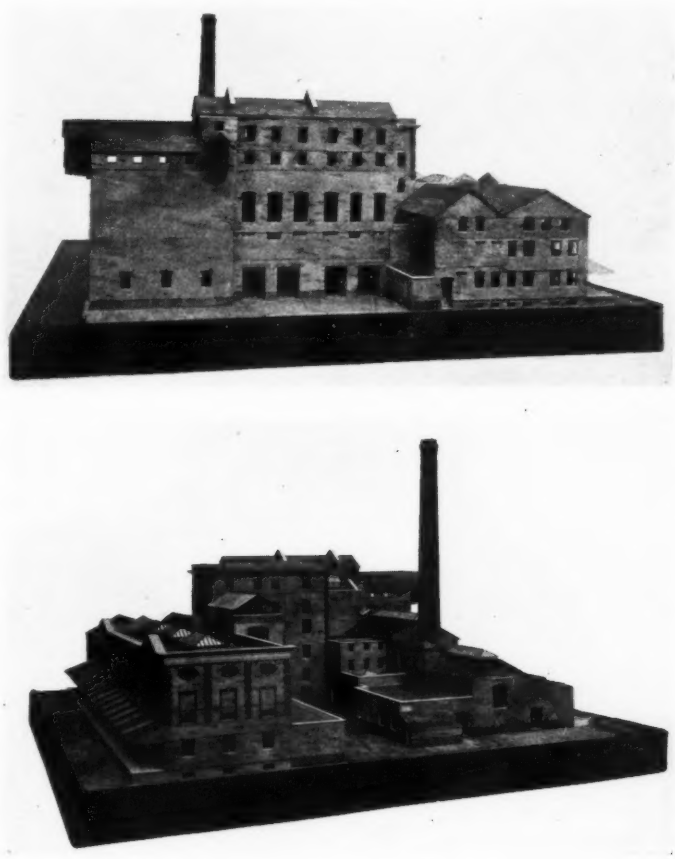
In the fermenting-room the tuns are of ferro-concrete. The use of ferro-concrete throughout, faced in places with glazed tiles, and with rounded angles, makes possible a far greater standard of cleanliness than the old methods, besides making an appreciable reduction in the actual labour cost of sweeping and cleaning.

Another example of innovations was the improved method of stoking for the copper and boiler furnaces. The existing boilers in the older brewery buildings were utilized in the same position, but it was perceived that the method formerly employed, by which coal was fed to the furnaces by hand from a dump, was wasteful and dust-producing. The system was eliminated by arranging for automatic stoking, and by the fitting of a revolving grate to the largest of the three coppers. The change in the stoking arrangements involved a change in the method of delivering coal, which, on the new site, had to be carted from the wharf a short distance away. To provide for this, large coal bunkers were contrived above the existing boilers. To these bunkers the coal is delivered by buckets of uniform capacity, which can be directed from below into any selected bunker. The planning of the foundations to sustain these great bunkers and their load was complicated by the necessity for bridging the foundations of an existing chimney. The reorganization of the coaling and stoking meant some modification in accommodating



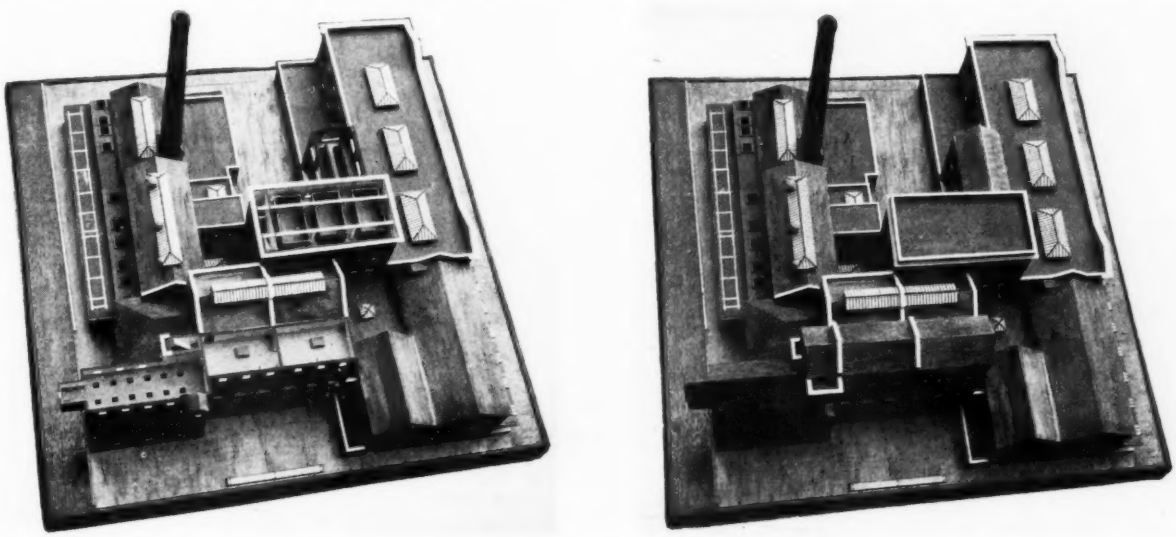
Elevation showing the loading-bank.

the various processes in the long sequence which produces the finished product. Into the existing system of conveying the materials entirely by gravity had to be inserted the pumping of the "wort" (beer before fermentation) to wort-receivers beneath the water tanks in the tower. The wort-receivers are of aluminium. From that point gravity again takes control, conducting the wort to the refrigerating room, where only filtered air is admitted, and thence to the fermenting tuns. The fermenting-room is one of the most striking of the whole series in the building. Not only is the efficiency of the whole arrangement evident, but the almost hospital-like cleanliness and light (though here is no direct sunlight) are a startling contrast to the more traditional type of fermenting room. Moreover, the lines and proportions of the room, with its ranges of north-light windows set between ferro-concrete principals of pleasing contour, satisfy the eye from the æsthetic point of view. Ventilation here is provided by means of ducts beneath the floor, with outlets to the flat roof at the side. Approach to this room, and others in the sequence, is by a staircase so contrived that no stanchions or other obstructions are met with in conveying machinery or parts to any floors. To the yeast-room, below the fermenting-room, the yeast is conducted by a "parachute." In the insulated cold-room, to which the fermented beer next flows, are vast cylindrical tanks, holding about 300 barrels each, from which the beer is led to the racking room.

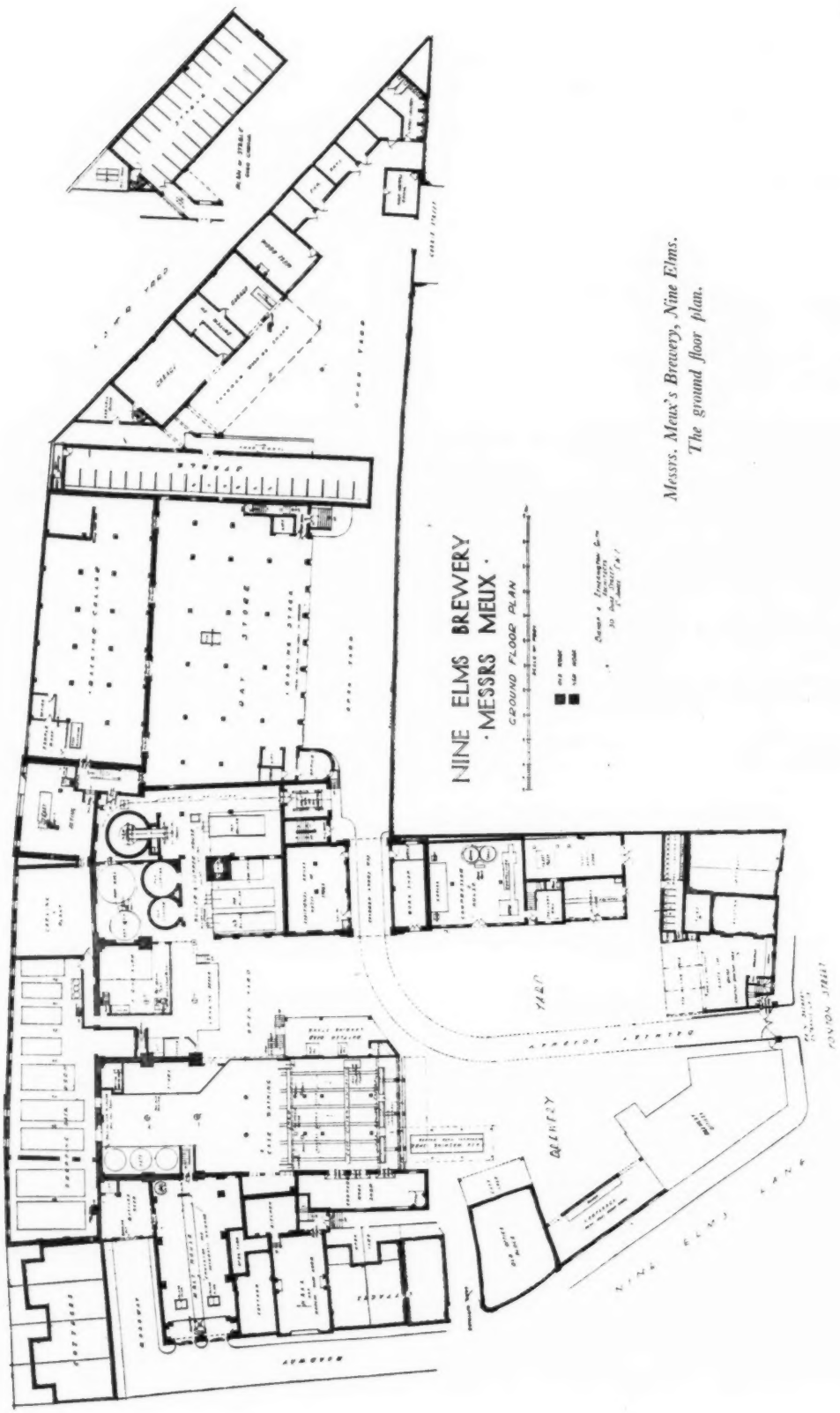


Above, the west elevation; below, the east elevation.

The effects of planning for efficiency are seen also in the newer methods of dealing with by-products. Ashes and waste hops are removed by conveyors and trolley-ways to the loading bank, where they can be shot into carts. A new method of dealing with the malt grains has been introduced: the wet grains are pumped up and conveyed to a dryer, whence they are sacked. Yeast, too, is dried on the premises, and the carbonic acid gas given off in the fermenting-room is collected and utilized by means of special plant. The question of dealing with the cloud of vapour given off from time to time in the brew-house is always one of difficulty. Here a draught is induced with



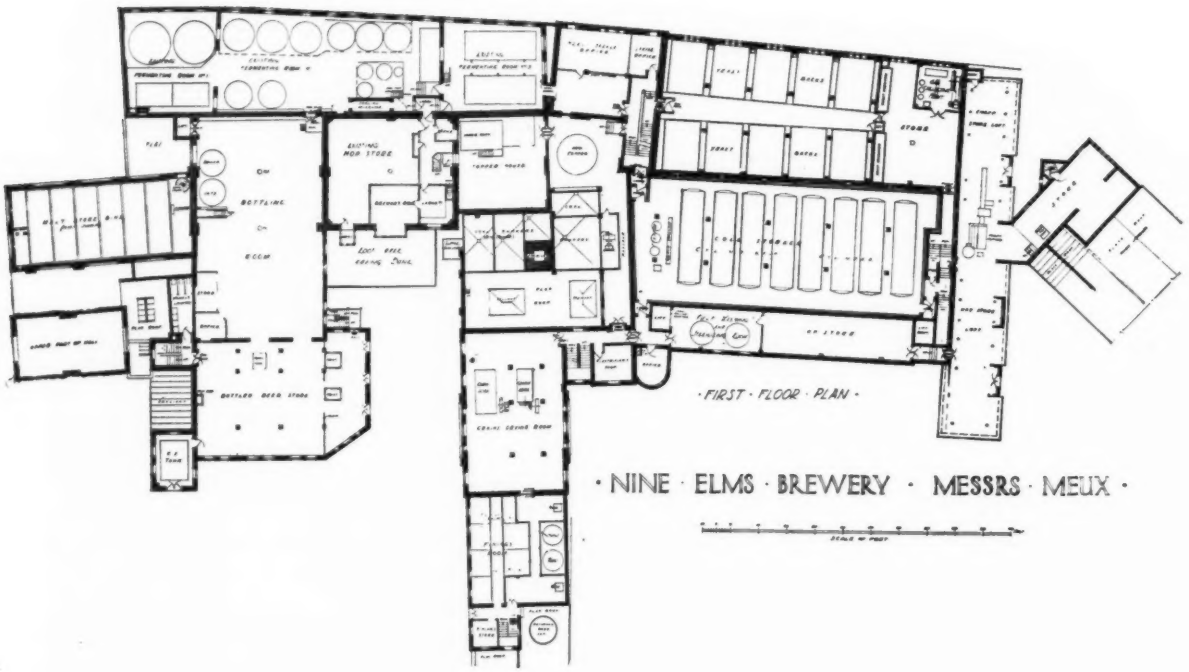
On the left, the third floor, comprising malt receivers, malt mills, and top of malt silos. On the right, the roof plan.

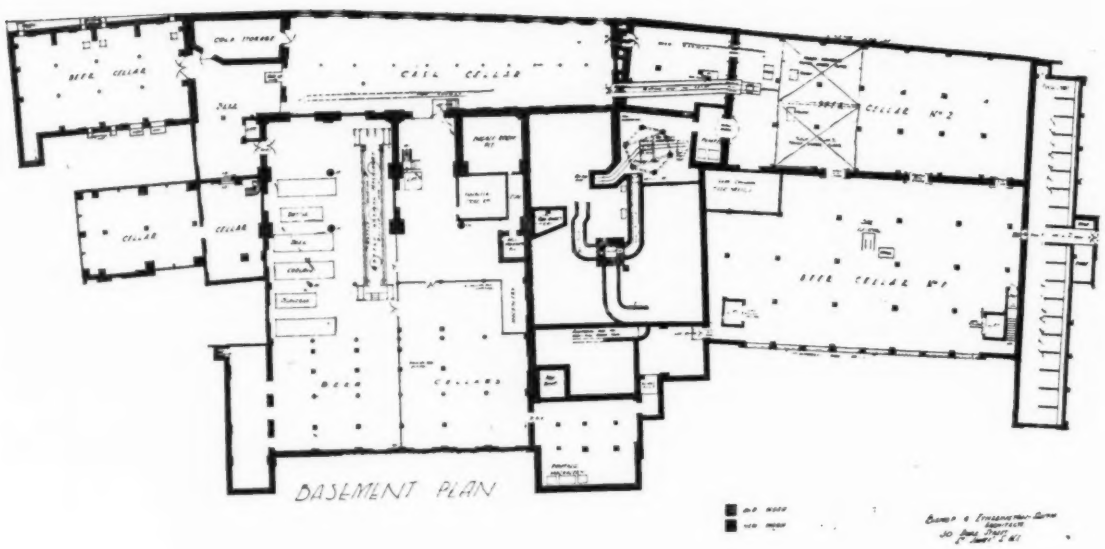


Messrs. Meux's Brewery, Nine Elms.
The ground floor plan.

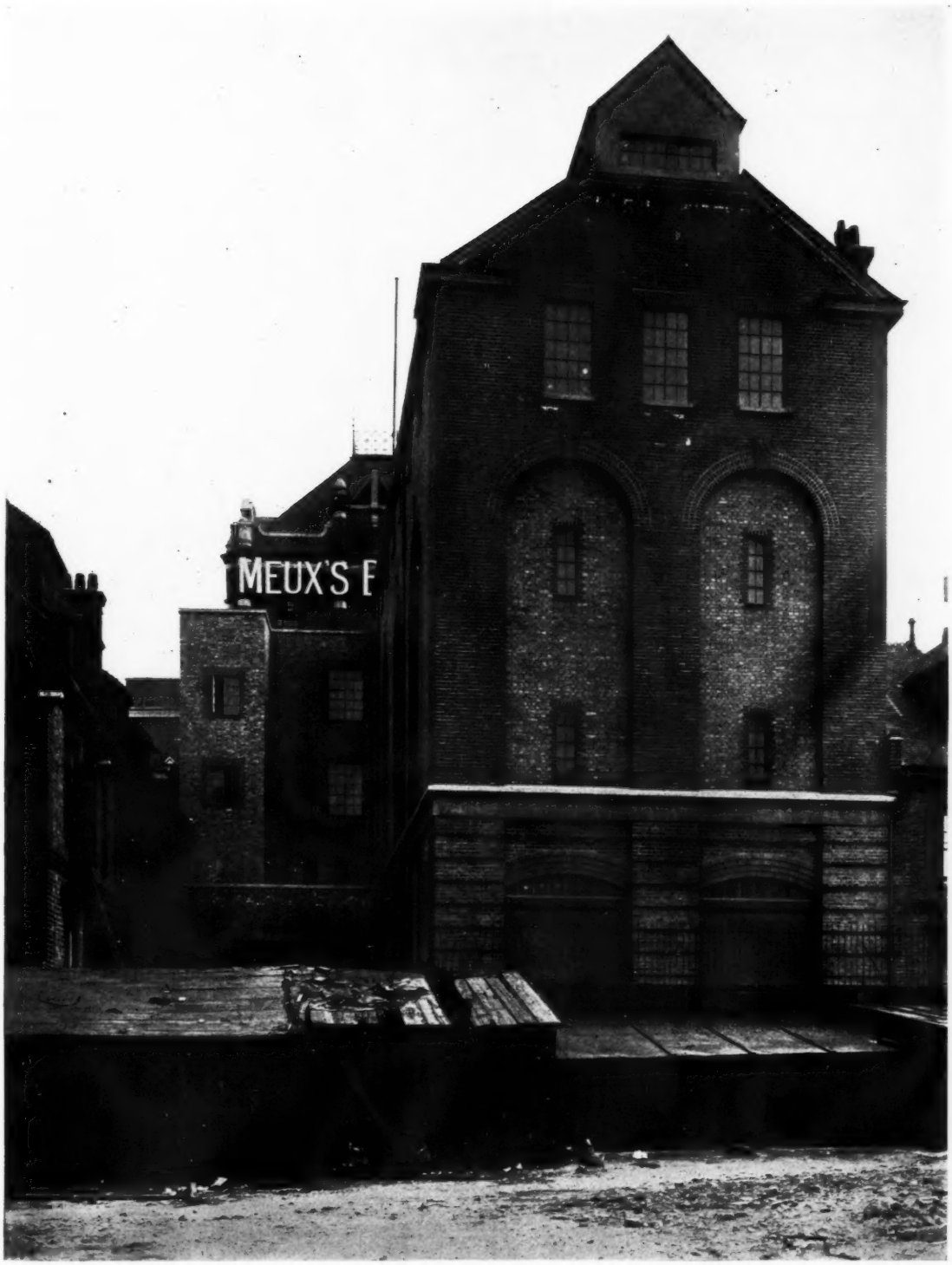
the purpose of conducting the vapour out through a louvred skylight. The portion of the buildings now turned into garages and stores was at first planned as a stable area. Accommodation for over 100 horses was provided by upper and lower stables and sick-bays. The external character of the brewery buildings, both as executed and in the abandoned scheme, reveals a certain almost domestic touch, still proper to industries such as this, which only in comparatively recent times ceased to be mainly home-industries. The street face of the house to the right of the entrance is pleasantly reminiscent of the eighteenth-century dwelling-houses remaining in the vicinity.

Messrs. Meux's Brewery, Nine Elms. By Bishop and Etherington-Smith. Above, a detail view of the elevation to the railway; below, the brewery as seen from the railway.

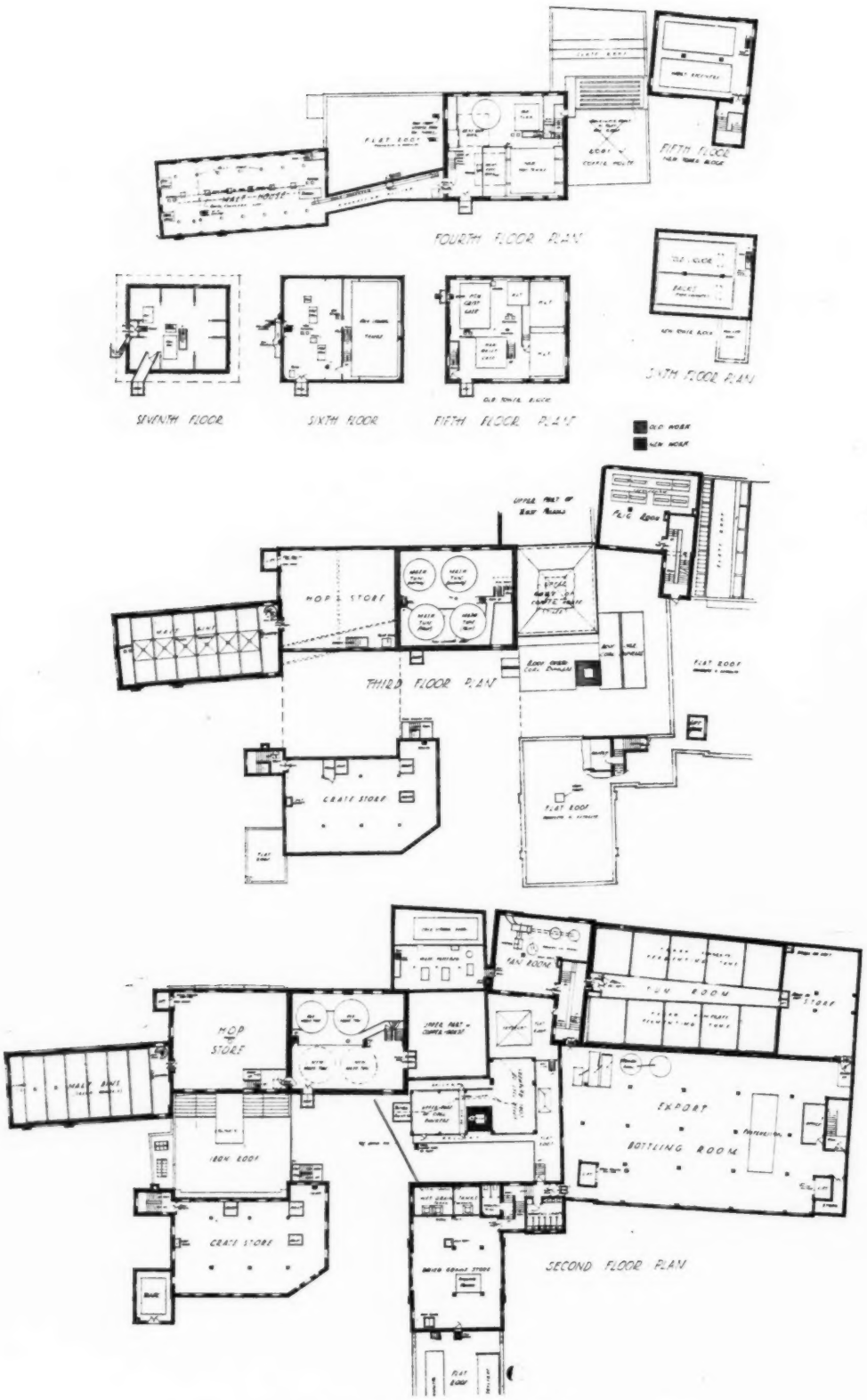




Messrs. Meux's Brewery, Nine Elms.
The first floor and basement plans.



Messrs. Meux's Brewery, Nine Elms.
The elevation of the malt store.



Messrs. Meux's Brewery, Nine Elms.
Plans of the upper floors.

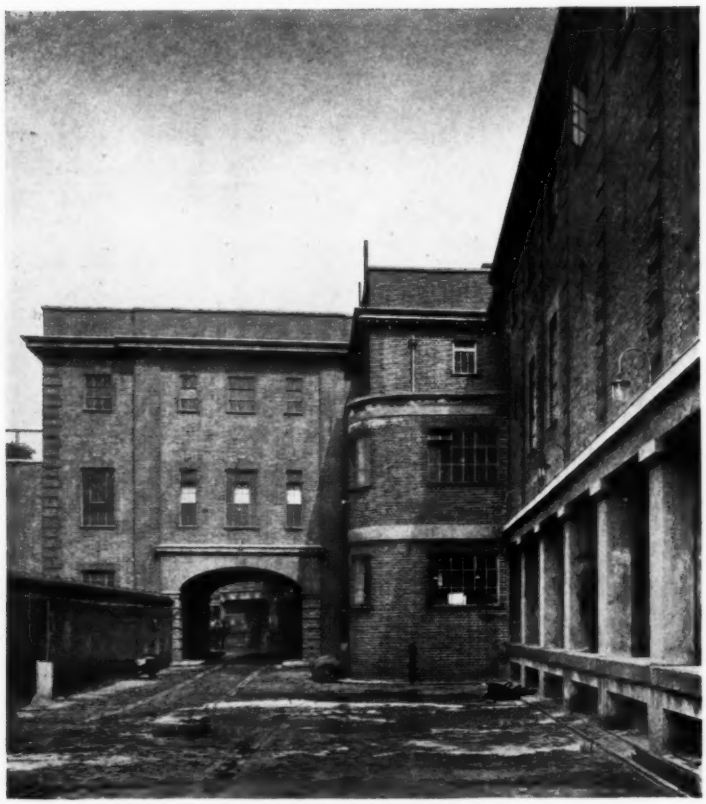
The general contractors for the work were G. E. Wallis and Sons, of Maidstone and London.

The general contractors as licensee for Mouchel and Partners (Ferro Concrete—Hennebique System) installed reinforced concrete construction in floors, columns, flats, north-light roofs, fermenting tuns, overhead coal bunkers, water tanks, and malt silos.

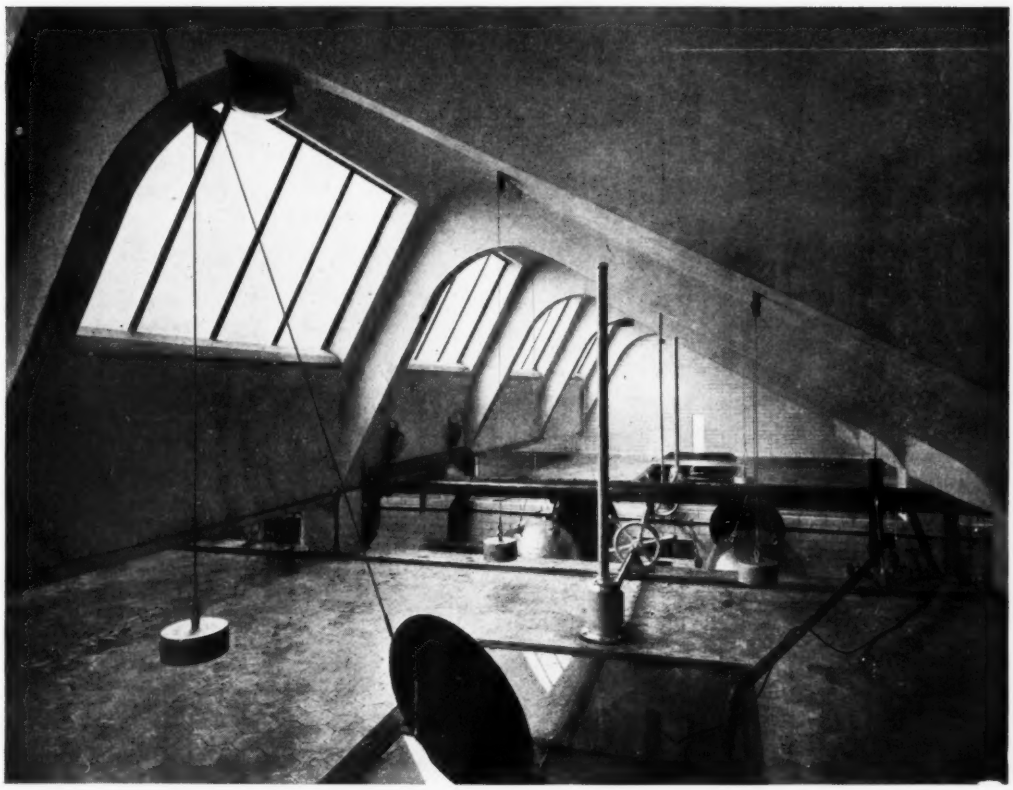
Sub-contractors employed on various works were: Redpath Brown & Co., Ltd., structural steelwork; Sidney Hunter, Ltd., multi-colour and red facing bricks; Carter & Co., London, Ltd., Art Pavements and Decorations, Ltd., wall tiling, w.c. divisions, etc.; Higgins and Griffiths, Ltd., electrical installation; Crompton & Co., Ltd., motors; Waygood-Otis, Ltd., lifts and barrel hoists, etc.; Underfeed Stoker Co., mechanical stokers to boilers and coppers; Richard Crittall & Co., Ltd., water and steam services, water pumps, ventilation; Doulton & Co., Ltd., sanitary fittings; Crittall Manufacturing Co., Ltd., metal windows; Dreadnought Fireproof Doors, Ltd., party wall fire-resisting doors; T. Faldo & Co., Ltd., asphalt; Mellowes & Co., Ltd., roof glazing; Young & Co. (Westminster), Ltd., stable fittings; Patent Victoria Stone Co., Ltd., granolithic floors and stairs.

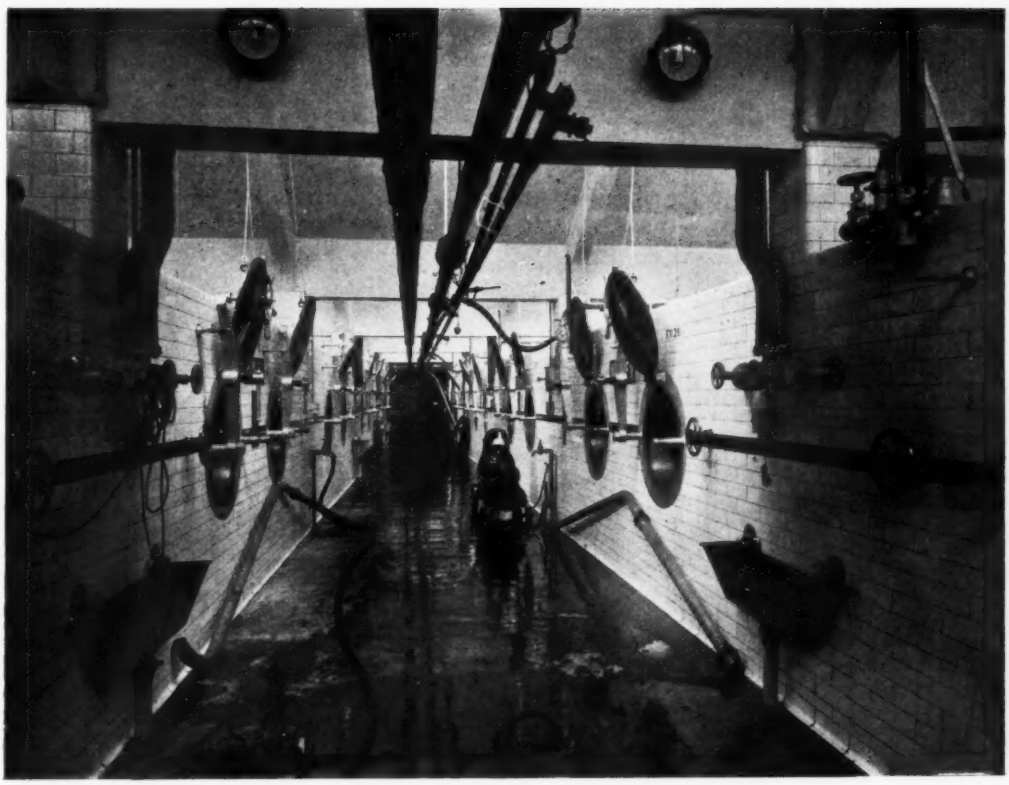
The brewing plant was supplied by: G. J. Worssam and Sons, tun room, copper piping, carbonic acid gas collecting plant, refrigerators; Roberts Adlard & Co., slate yeast backs and finings vessels; R. Ramsden and Son, malt mills, grist cases, mash tuns, Steele's mashers, Gregory's cask washing plant, air purifying plant; H. Pontifex and Sons, Ltd., copper refrigerating and chilling plant; R. Simon and Sons, grains drying plant, wet grains pump, yeast drier; Hopkins and Sons, mechanical cask washer, cask racking machine, beer filter, pulp washer; R. Boby, Ltd., malt elevators, band conveyors, and screen; Ewart Chainbelt Company, bottle conveyors; Aluminium Plant Co., wort receivers; John Fraser and Sons, Ltd., chilled beer tanks; Baracid Co., Ltd., lining to fermenting tuns; Mitchell Conveyor and Transporter Co., mechanical coal-conveying plant. Messrs. Selby and Sanders, and Messrs. Gardiner and Theobald were the quantity surveyors.

Messrs. Meux's Brewery, Nine Elms. Above, the elevation of the garage and chauffeurs' quarters; below, the elevation of the bottling department.



Messrs. Meux's Brewery, Nine Elms.
Two views of loading-bank.





Messrs. Meux's Brewery, Nine Elms. Above, the concrete north-light roof over tuns; below, the tun-room.

Messrs. Meux's Brewery, Nine Elms. Above, the floor over the malt silos, with malt shoots and screen; below, the main cellar.

THE COMPETITORS' CLUB

[*On this page a well-known architect, who has been successful in a number of major competitions, will, under the* nom de plume *of* SENESCHAL, *contribute a weekly causerie on a subject that is gaining in importance day by day. We are sure that all our younger readers, and most of the older ones, will here find much to help them. Precisely* how *much it would be difficult to say just now: it must suffice if we promise that the help will not only be theoretical, but practical also, not only indirect, but direct.* SENESCHAL *will keep a watchful eye on current events in the competition world, and his remarks will not be timed, as they so often are, to follow the announcement of the result. But in this, his first article, he has something to say on this very matter.—Editor* A.J.]

INTRODUCTORY NOTE

DURING the last year or more a very large proportion of the columns in the professional press has been given up to the discussion of competitions, to a large extent dealing with alleged failures in procedure and adjudication. Now it is not my intention to re-open any of these discussions, for, however well justified the opinions then voiced may have been, their expression in the Press raises doubts in many minds as to the validity of the competition system. I do not share these doubts, and, believing that it is, on the whole, of immense value to both architecture and architects, should wish to see it so conducted as to be beyond the reach of criticism.

So much of this criticism comes too late in the day to be of service except as a warning for the future. Most are agreed that the assessors' award must stand in any case, and, therefore, it is flagrantly a case of shutting the stable-door after the steed is stolen, and slamming it with a rather unpleasant noise liable to reach the layman and give him the impression that architects are quarrelsome people, which is, of course, the reverse of the truth.

A consideration of these happenings will force us to the conclusion that a little of the energy devoted to reviewing competitions at their tail-end, if applied at the right time, namely, at the start, would produce infinitely more useful results. Most competitors know this well enough, but not knowing each other are unable to co-operate. Now this is where the Press can be of real use, and after looking at the question from various aspects THE ARCHITECTS' JOURNAL has decided to dedicate this page in each number to the service of competitors. Here it proposes to print, on their issue, the conditions of all important competitions in a summarized form, but covering all essential points. A fortnight later a critique of these conditions will appear, so that all who are interested may have time to submit their views. These views it is intended to sum up in the subsequent review, chiefly in order to assist competitors in framing their questionnaire so as to improve the conditions in any way that may be desirable.

Of course, we shall all hope that, as a general rule, very little attention of this kind will be required, but it is quite clear that if procedure on these lines had been in operation during the last year or two a great deal of wasted energy would have been saved. The Editor and I conclude, therefore, that there is full justification for the somewhat novel programme here laid down. We do not for a moment suggest that we can teach anyone to succeed in competitive practice, but we do hold that we can be of material assistance in clearing the ground of ambiguities and uncertainties at the early stages. More especially shall we be able to do this if we secure the assistance of our readers in pointing these out, and by including appropriate questions based on the united opinion of those interested who may regard themselves as members of *The Competitors' Club*.

This, though perhaps the most important, is not the only branch of the subject that will claim attention. Naturally reviews of competition results will come under this heading, and also, from time to time, articles on the varied forms that competitions take, and others dealing with architecture, planning, and the like as related to competitive practice. The subject, as a whole, possesses so definite an interest for a large section of the architectural profession that it is not easy to say to what distance this departure may lead us. Suggestions from our readers, not necessarily for publication, will be welcomed, in especial as they will assure us of their sympathy and goodwill towards this effort to put a corner of the architects' house in order.

Considering the prominent place the competitive design takes in the training of the architectural student it seems strange that anyone should challenge the value of the public competitions as being in the interests of the profession and as conducing to an improved standard of design. I shall have more to say on this point at a future date, and will content myself at the moment with a mention of the fact that in France success in one of the premier students' competitions carries with it the assurance of an appointment giving the winner an opportunity to develop his practice as a principal. No such arrangement obtains with us, and, therefore, it seems only fair that the young architect who has shown an exceptional capacity in design should have some alternative to putting his services out on hire to those already in possession of the field. It will, of course, be admitted that for a time he will derive benefit by so doing, but considering the general tendency to estimate ability by achievement only, some test of achievement is necessary other than that of executed work, or the time of waiting for its legitimate reward will be, alas, unconscionably long.

SENESCHAL.

COMPETITION CALENDAR

The following competitions are announced with the full approval of the R.I.B.A.:

Thursday, January 14. International competition for houses for the middle classes. Premiums 500, 300, and 200 dollars. Adjudication by International Jury of eleven. Particulars from the Director-General of the International Federation, 17 Avenue Carnot, Paris.

Saturday, January 16. Branch library at Gabalfa, for the Cardiff City Council. Open to qualified architects within the City of Cardiff. Premiums £75, £50, and £30. Assessor, Mr. Sidney K. Greenslade, F.R.I.B.A. Particulars from the Librarian Central Library, Cardiff. Deposit £2 2s.

aturday, January 30. Erection of a new art gallery and museum at Birkenhead. Open to residents and practitioners within twenty miles of the Birkenhead Town Hall. Premiums £250, £175, and £100. Assessor, Sir Robert Lorimer, A.R.A., R.S.A., F.R.I.B.A. Particulars from Mr. E. W. Tame, Town Clerk. Deposit £2 2s.

Saturday, February 13. Clock tower with drinking fountains to be erected in the new park, Blackpool, as a suitable memorial to the late Dr. William Henry Cocker, J.P., first Mayor and Honorary Freeman of the Borough. Assessor, Mr. E. Bertram Kirby, O.B.E., F.R.I.B.A., President of the Liverpool Architectural Society. Particulars from Mr. D. L. Harbottle, Town Clerk. Deposit £1 1s.

Wednesday, March 31. Australian War Memorial, Canberra. Open to Architects of Australian birth. Particulars from High Commissioner, Australia House, Strand, London.

Thursday, April 1. Public Hall, Topsham. Premiums £50, £40, and £30 respectively. Assessor, Mr. Walter Cave, F.R.I.B.A. Date for application for particulars has passed.

Friday, April 30. Australian National War Memorial, Villers Bretonneux, France. Open to Australians. Particulars from High Commissioner's Office, Australia House, Strand. Deposit £2 2s.

Monday, July 12. Royal National Eisteddfod of Wales, Swansea, Competitions: (1) National Parliament House of Wales (Prize, £100; (2) Street Facade to a Large Stores (Prize, £25); (3) Set of Measured Drawings of Architecture (Prize, £25). Assessor, Mr. Arthur Keen, F.R.I.B.A. Particulars from the publishers, Messrs. Morgan and Higgs, Heathfield Street, Swansea (1s. 2d. post paid).

No date. Conference Hall, for League of Nations, Geneva. 100,000 Swiss francs to be divided among architects submitting best plans.

No date. Secondary School for Girls, Worcester. Premiums 100 guineas and 50 guineas. Assessor, Mr. Herbert T. Buckland.

MIRRORS
THEIR ARCHITECTURAL EMPLOYMENT

BY BASIL IONIDES

THE architectural use of mirrors in decoration has advanced but little since the days of Wren, who adopted them to help the effect of his mantelpieces, and placed them between the windows in his houses. It is seen at Hampton Court how charming they may be, and in the Adam houses they are put to most admirable uses. In the copies of these masters, but little advancement is observable, although there are finer craftsmen in the making of mirrors than ever there were before, and the material in which they work is better and more varied.

There are fine bevellers, embossers, etchers, and silverers of glass, and almost any effect can be got. We may have coloured mirrors in blues, pinks, greens, and ambers, or gold, black, and silver mirrors. The gold can vary in many degrees, and so can the silver. But we are chiefly concerned with the silver, as it is more customary. There are obtainable clean, bright, clear-plate mirrors for good reflection, and there are also other degrees of colour, even extending to a deep grey. It will be found that the clearness of the clear, bright mirror gives the illusion that the reflection is at double the actual distance of the mirror, the apparent distance being that reflected but not atmospherically. Yet the illusion of space is not as great as it might be. If, however, one uses a mirror of a grey tone, one's apparent distance from it is increased, producing a sense of looking into space instead of back on to oneself.

There is a fashion to-day of having mirrors cut into pieces. This is in imitation of the old mirrors that were used in sections simply because large plates could not then be made. Why this disqualification should be imitated by cutting V-shaped grooves across a perfectly good mirror it is hard to understand. There is no advantage observable. The charming pateræ that fix the squares, however, have a distinct decorative value in certain positions, and the edges of each plate reflect light very prettily. The V-cut mirrors are a very poor imitation. If clear reflections are desired the mirror should not be squared at all, but left plain.

Large mirrors used for the embellishment of the architecture of a room are often very interesting. In old Adam work mirrors are sometimes let into the plaster of the walls, with a charming tracery of the period applied to the front. This is a risky practice, as the case is hopeless if the mirror chances to get broken, as it was put in from the front and the decoration applied afterwards. But the method produces lovely effects.

Niches may be treated with mirrors. For the shaft of the niche the glass will have to be cut into many long strips, and into small pieces for the cove, but the result is very charming. In using mirrors for so informal a purpose as this, it is advisable to have glass that is "antiqued." Bright plate glass would never look right, and the colour should be greyish.

Lately the mirror is less often regarded as part of the mantelpiece, and has become a detached piece of furniture. This change is apparently a consequence of their being badly placed and designed. When the mirror is well designed, nothing is

Sir Edwin Lutyens designed this room, and has used a mirror in the manner so much favoured in the seventeenth century. This is an effective and rational treatment for a mantelpiece, and it is also an inexpensive one.

The illustration on the left shows the usual old-fashioned treatment of a piece mirror in squares, copied from the French. This may be varied to more modern design with charming results, and at no great expense. At right, a typical example of the use of a mirror in decoration to give a sense of glitter more than of space. The walls require a relief, which is well supplied by the mirrors.

more satisfactory than a mirror worked into the scheme of the mantelpiece, and there are many ways in which they may be embellished. They can be framed, as at Hampton Court, in bevelled coloured mirror, fixed with moulded pateræ, the bevels being flat, or the mirror may be festooned in the Adam manner.

The material sets the limitations with mirrors. Plate mirror is made from a fraction of an inch up to two inches in thickness. The expense per foot rises gradually as the size increases, but makes a big jump when the plate reaches 100 sq. ft. super. Boring holes in the mirrors for screws to fix it weakens the plate tremendously. Inside curves are expensive to cut, but are feasible, and when bevelled are very pretty.

It is sometimes desirable to subdue the edge of the framing of a mirror. To do this it is absolutely necessary to colour the back of the frame where it touches the glass, as the reflection of this part mars an otherwise nice piece of work.

I have myself once or twice tried to design light fittings so that half a circle placed against a mirror made a complete circle, and I have found that to make the illusion complete it is necessary to have in the design breaks which carry on the idea of the break that occurs where the gap between the front of the glass and the reflection on the back occurs. The reflection is cast from the back of a mirror, not from the front.

Very pretty decoration can be done on mirrors. The glass may be cut boldly on the surface, in the way that bevelling is done, but, of course, one is limited to design that is a little archaic, yet none the less charming. Again, the back may be engraved like the old Venetian work, which is limited to small plates, as they have to revolve in the process; or etching with acid can be adopted, and this, when well designed, can be very lovely indeed; but the design must be excellent or the result will be too flat. I am at the moment having some mirrors made in this way.

Mr. Ranken has designed some large Italian landscapes which are being engraved on to mirrors which measure 11 ft. long and 7 ft. high, cut into panels like a screen. These are being framed in bands of bevelled gold and pink mirrors made somewhat in the seventeenth-century manner.

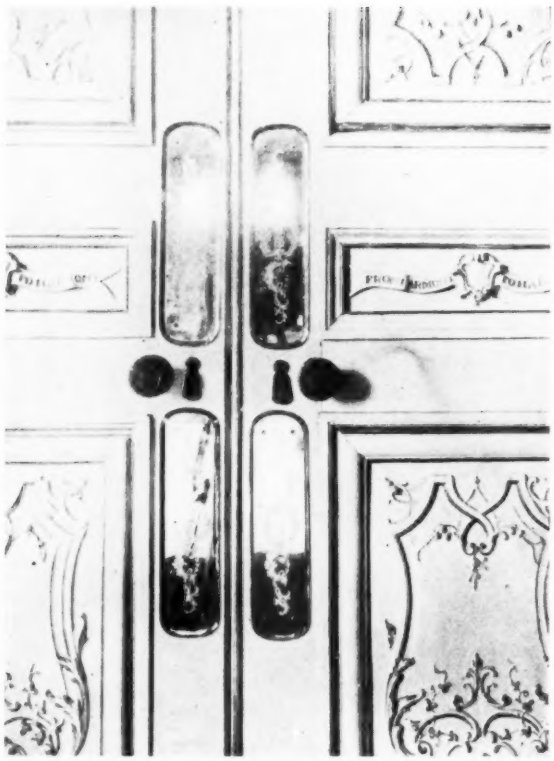
The placing of mirrors is important, indeed, and it is of vital importance that they should be exactly perpendicular, as the slightest slope ruins all.

It is better to avoid the reflection of windows in mirrors if possible. The halation would most likely spoil the effect. There are times when one may use mirrors on a ceiling with advantage. A cove and then a flat space, mirror-covered, will make a low passage look comparatively high.

One may decorate mirrors with more glass. For an hotel lift I am having some made thus. The large plate of glass has on its front festoons of cut green glass, representing drapery, while under it stands a green bowl with flowers in it, all being done in different coloured mirrors on the main mirror. This is a little modern for most tastes, but it might be done in a more classic manner.

A picture mirror will sometimes be successful. The process of producing it is to paint on the back of the glass and then silver the part unpainted. The drawback is that sometimes a dark edge will occur round the painting, from the pigment affecting the silvering.

When speaking of mirrors one naturally thinks only of silvered ones, but in reality one may have many sorts. A black mirror may be produced by placing black velvet behind plate-glass,



The illustration on the left shows a very pleasant treatment. The semi-classic landscapes are painted on the back of the glass, and then the rest is silvered—a treatment that gives a curious sense of space. That on the right shows finger-plates of a mirror engraved with monograms and coronets such as are found on some of the doors at Madresfield Court. This idea could be worked out very prettily in other designs.

and will be effective if it fits in with the surrounding scheme. Coloured mirrors should be made of coloured glass, silvered if they are to be really good, though sometimes the colour is put on to the back of plain glass. This never looks genuine, and is too easily detected. Gold mirrors are delightful, and are quite neat. It is done with gold-leaf on the back of the glass. In some lights it seems to lose its gilt, and to become almost white, and some reflections, such as blue, seem to cancel the gold. This gilt mirror should be used far more often than it is, especially in narrow strips and in larger quantities to brighten dark, cold-grey corners. For niches it is delightful, and reflecting on to itself becomes more intense.

There is also—I am told, but have never seen—a wonderful transparent mirror that is used by illusionists. It is a mirror if the stronger light is on the front, but one can see through it if the light is on the objects behind. This is used for disappearing tricks, I am told.

Concave and convex mirrors may be used in decoration most effectively, but they should be used as a thing in themselves to give sparkle to a scheme, and not as mirrors for reflection. Mirrored covered glass is impossible; it is far too restless, as every little movement produces a multitude of answering shooting reflections. The darker the situation of a mirror, and the lighter the reflection, the more effective will it be. Thus a mirror placed between windows reflecting, as it would, the light side of every object, will be far more effective than one opposite where one would see the dark side reflected. One sees a good illustration of this when one looks into shop windows which have mirrors in them. One not only sees every neglect in cleaning, but one also sees oneself, and other reflected objects showing the darker side amongst the objects displayed in the window which show their lighter side towards one. This is unfair on the objects, and is also an untruthful lighting effect This point needs consideration when placing a mirror architecturally as part of a permanent scheme.

When a mirror is to have no frame, and is to rely on itself for its edge, it should always be bevelled. This may be done in the old way with a soft flat bevel, or it may be done with the hard, sharp, commercial bevel of to-day. In either case the edges should be polished and the fixing carefully considered. For this latter clips on fillets may be used, but the choicest way to fix an unframed mirror is with pateræ fixed on with ornamental headed screws. This way—as I have said—weakens the plate, but it is very effective, and perhaps a little colour may be introduced into the pateræ. In bedrooms these unframed mirrors will be found invaluable inside cupboard doors where they may be fixed as full-length mirrors for dressing out where a framing would often look too heavy in proportion to the whole.

It is necessary to protect mirrors in bathrooms so that the steam will not affect them. This can easily be done. It is well when intending to use mirrors to remember that it is not a large industry in its finer forms, and so it may take a long time to get things made. In fact, it is often well to place the orders for specially bevelled and curved mirrors almost as soon as the building is begun, and where engraving is needed in large quantities it will take some months to get done if the design is a special one.

Of course there are endless other uses for mirrors in the house—finger-plates, plates for electric bells, and switches, etc. etc., and sometimes for the tops of shelves. A common shelf will be almost unnoticeable if it has a mirror top, since the line of the angle carries down in the mirror. A mirror is probably more often used for artifice than for any other purpose, but the artifice is very allowable as it is only to gain an illusion of space.

LITERATURE

Modern English Houses and Interiors.

AT this time, when housing occupies so important a place among the social problems of this country, some reliable guide to the possibilities afforded by this section of architecture seems to be essential. Messrs. James and Yerbury are to be congratulated on the way in which they have supplied this want.

The Englishman's pride in his home has always been a powerful factor in the creation of the various styles of domestic architecture, and has been largely responsible for setting a standard of design unequalled by any other country. Architecture always reflects the social conditions of its period, but, in so far as England is concerned, the domestic work is the clearest mirror.

The war probably affected the design of houses, large and small, more than any other branch of architecture. Cost of materials, cost of labour, and, above all, the servant problem, made architects and laymen realize that there had to be a drastic change of idea; absolute simplicity was the conclusion, and throughout this book the absence of unnecessary embellishment is in evidence. The craving for the picturesque is gone, and plain, polite designs have taken the places of the crudities which were the vogue before the war. The tendency to erect expensive "antiques" is gone, and in its place has grown up a logical expression of function and environment, which is fully in keeping with the times.

The Georgian feeling is noticeable all through the book, and it is probably the most satisfactory medium for the expression of existing conditions. Overdone it might become dangerous to the progress of design, but in most cases the treatment has been thoughtfully handled and has produced admirable results. The exteriors, for the most part, show extreme simplicity, and rely on their proportions for their effects; large shadows play a singularly unimportant part; mouldings are conspicuous by their absence, and, where they have been introduced, their execution is again indicative of the consciousness of the cost.

The plans, where shown, are of so straightforward a nature as to delight any housewife, and they show that, in spite of all we hear, architects not only thoroughly appreciate the problems with which modern conditions have saddled the housekeeper, but are entirely competent to deal with them. Compactness and accessibility are the watchwords to-day, and it is evident that the architect, as well as his client, is well aware of them.

But the elimination of the unnecessary does not stop with the façades. The interiors have in all cases been reduced to essentials. Heavy mouldings have gone, and in their place we find a refinement of treatment, which is most refreshing. It seems that the plain surface and sharp angle have suddenly found their places in the world of design, and have decided to make the best of themselves; in some cases, certainly, they have run riot, but even so they are preferable to the welter of swags and indelicacies that were their forerunners. In many cases the decorations and furniture have been handled by the designers of the houses—a system which is always desirable: colours have been extensively used in place of forms, and help to carry the effort in support of plainness to its ultimate conclusion.

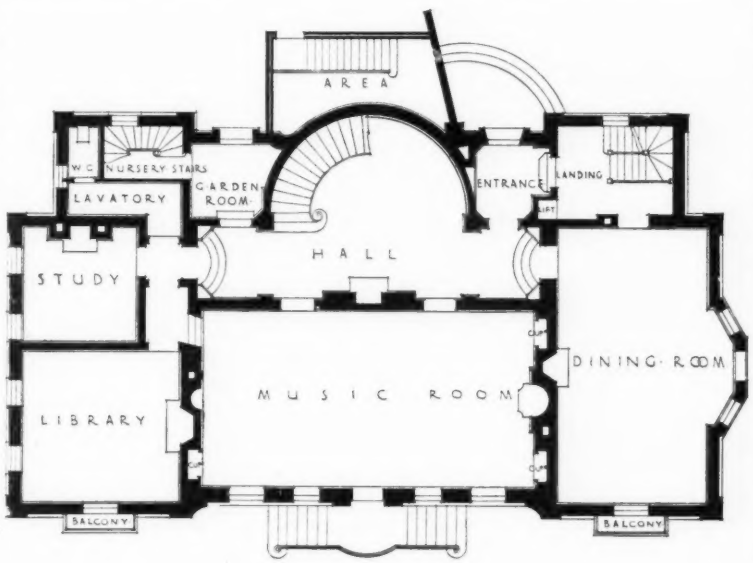
The editors are to be complimented on their choice of subjects, and on the photographs, which are, of course, admirable from every point of view, and of which we reproduce three examples.

Modern English Houses is no ordinary book. Messrs. James and Yerbury have realized their responsibilities to the full, and have risen to them to the utmost extent; if the work which they have chosen to illustrate cannot be fully representative of the building now in progress, it is certainly a well-ordered selection of the best designs executed in modern times. If the book should fall into the hands of laymen who have thoughts of building, and should influence them in some small degree, its object will have been achieved. It does not tell us so much what *has been* done, as what is the best thing to do.

Modern English Houses and Interiors. By C. H. James and F. R. Yerbury, AA.R.I.B.A. London: Benn Bros. 30s.

An Ancient Maya Citadel.

Dr. Gann dug over the remains of Xunantunich (Benque Viejo) alone. At the more important ruins of Lubaantun he was working in conjunction with those popular explorers—and writers—Lady Richmond Brown and Mr. Mitchell Hedges. He seems to have got in first with his description of the expedition—and that after all is only fair, for as neither Lady Brown nor Mr. Hedges spoke a word of Spanish or Indian, Dr. Gann was a very important member of the party. The great Maya city of Lubaantun is, as Dr. Gann puts it, "absolutely unique," not only in Central America, but anywhere else in the world. Neither the Aztecs nor the Incas left us anything quite like this, though they were infinitely better builders than the Mayas. Lubaantun covers seven and a half acres, and is the largest aboriginal building on the American continent, the central space (Dr. Gann calls it the arena) alone occupying an area of a third of an acre. As a fortress it must have been practically impregnable against any weapons known in South America before the Spanish conquest. It stands on a great platform surmounting a stone-faced, almost perpendicular wall, 40 ft. to 60 ft. high, and it had its own wells



House at Campden Hill, London, W. By H. M. Fletcher. Ground-floor plan.

House at Campden Hill, London, W. By H. M. Fletcher.

for obtaining water, and granaries large enough to keep a garrison going almost indefinitely.

If, as Dr. Gann supposes, its principal use was as a theatre, it could offer seating accommodation for five or ten thousand people on various grandstands, sloping mounds, and flat-topped pyramids grouped round the main arena. Dr. Gann is enthusiastic about the seating arrangements, pointing out admiringly that the pyramids at the back were built higher than those in front, so that all the spectators might see; but this is surely elementary, and would be poor consolation to an ancient Mayan gallery-ite who, having paid for admittance, found himself as much as 200 ft. away from the stage, and observed the vast amount of waste space which might have been utilized for nearer seating. If, on the other hand, the citadel was mainly a fortress, and only secondarily a theatre or forum, such inconveniences would be overlooked.

Dr. Gann reprints among the illustrations his very interesting "reconstruction" of the Lubaantun citadel, which appeared some time ago in the *Illustrated London News*. This is no doubt as good a guess at the original appearance of the place as anyone could make, except that the human figures are too small, thus exaggerating the apparent size of the arena. We are left with the impression that the Mayas, though clumsy builders (their method of raising a building was to fill in the lower story with stones and mortar, and then build others on top) had, at any rate, the grand manner. This citadel, as Dr. Gann says, must have stood up like "a glittering snow-white island," above the tropical vegetation. And the twentieth century must take off its hat to builders who could achieve all this with nothing but stone tools.

CLENNELL WILKINSON.

Mystery Cities: Exploration and Adventure in Lubaantun. By Thomas Gann, F.R.A.S., F.R.G.S., M.R.C.S. Duckworth. 21s.

A Bed. By Lionel H. Bucknell. (*From "Modern English Houses and Interiors."*)

A Very Useful Year-Book.

The new edition of this volume has been extended to over 400 pages, divided into the three usual sections of handbook, directory, and catalogue. Following the object the editors have in view of putting on record in one volume, or set of volumes, all the results of researches into reinforced concrete, a great deal of matter in the previous edition has given way to new chapters, included in which is a complete specification for reinforced concrete construction. Another useful section of the handbook is that giving drawings and approximate prices for different classes of reinforced concrete construction, which is introduced in this edition. The data and other information of everyday use to the reinforced concrete designer and contractor have been retained and brought up to date. The directory section has increased considerably in size, and, consequently, in usefulness. It is claimed that this section, which is classified, includes particulars of every business catering for the concrete industry at the time of going to press. A useful feature of the directory is a list extending to twelve pages of trade names and brands in use in the industry, which should be appreciated by those whose business necessitates the discovery of branded goods mentioned in specification. The catalogue section has also grown, and now includes 200 pages of announcements relating to businesses and products used in the industry: its chief use is the great amount of time and trouble it saves in sending for catalogue, as owing to its completeness this section contains complete descriptions of practically every machine or product used in concrete construction, together with particulars of the specialities of a large number of contractors.

The Concrete Year Book, 1926. Edited by Oscar Faber, O.B.E., D.Sc., and H. L. Childe. Concrete Publications. 2s. 6d.

CORRESPONDENCE

To the Editor of THE ARCHITECTS' JOURNAL.

SIR,—The controversy over the absence of bases in the arcade of the Stockholm City Hall sent me to a book, which is, I suppose, almost the earliest attempt in English to formulate the first principles which control all architecture, not merely that of one style. "It was necessary," wrote Mr. Ruskin, in the preface to *The Stones of Venice* in 1851, "that I should establish some canons of judgment, which the general reader should thoroughly understand, and, if it pleased him, accept, before we took cognizance together of any architecture whatsoever."

The first volume then deals exhaustively with the elements of architecture, but Mr. Ruskin is fairer to the baseless columns of the City Hall, or rather, to those of that building which so profoundly influenced it—the Ducal Palace of Venice—than is Mr. Trystan Edwards. "The intervals are filled up to the root of the shaft, and the columns have no independent base; they stand on the even floor of their foundation. Such a structure is not only admissible, but, when the column is of great thickness in proportion to its height, and the sufficient firmness, either of the ground or prepared floor, is evident, it is the best of all, having a strange dignity in its excessive simplicity—the pier base is the foot or paw of the pier. As far as it has to bear up, it is uncloven, with slight projection—look at an elephant's (the Doric base of animality)."

The differences in the outlook of Mr. Ruskin and Mr. Edwards are accidental rather than fundamental. Mr. Ruskin called back architectural criticism from orders to essentials; this the Battle of the Styles ignored. To-day the Battle of the Styles is lost and won; it is time to go back to fundamentals. Mr. Ruskin, like Mr. Edwards, speaks to the multitude. Both reduce all criticism to a lowest common denominator; with Mr. Edwards it is Manners; with Mr. Ruskin, Morals. Mr. Ruskin's health favoured Italy, and his rules are those best proved by Italian Gothic; Mr. Edwards had years at Scapa Flow, and the fogs of London are congenial atmosphere for his study of the works of the Regency. But their views on town planning are not very dissimilar, and might not this sentiment have been expressed by either: "Venice may well call upon us to note with reverence that of all the towers which are still seen rising like a branchless forest from her islands there is but one whose office was other than that of summoning to prayer, and that one was a watch-tower only."

Yours, etc.,

H. C. HUGHES.

THE WEEK'S BUILDING NEWS

Over Four Hundred Houses for Manchester.

At Manchester 424 houses are to be erected by private enterprise.

Housing at Darlington.

The Housing Committee have decided to erect 50 houses.

Schools at Beckenham.

Beckenham Education Committee have bought sites for two new elementary schools.

Cinema Destroyed.

The new Empire Kinema, Bury St. Edmunds, has been destroyed by fire.

Concrete Houses in 1925.

Twenty-four thousand concrete houses were erected in the United Kingdom during the twelve months ended December 31.

Concrete Houses at Oxford.

Owing to the success of their hundred concrete houses, Oxford City Council have decided to continue to build in this material.

A New R.C. School.

It is proposed to provide a new Roman Catholic school for 300 children at Goresbrook Road, Dagenham.

Leeds University.

In three and a half months about £238,000 has been raised for the reconstruction and development of Leeds University.

St. Andrew's University.

A hall and residence for men students is to be built for St. Andrew's University, at an estimated cost of £45,000.

Ilford Housing.

Ilford Council have passed plans for another 200 houses to be built by private enterprise.

Leicester Housing.

The Housing Committee of Leicester report that the purchase of Braunstone estate, at a cost of £115,000, has been completed.

Rebuilding of Hagley Hall.

An eminent architect has examined the fabric of Hagley Hall and reports that the walls are sound and that rebuilding is possible.

New Bridge at Hull.

The scheme which had been previously rejected for the construction of a new North Bridge over the River Hull at a cost of £275,000 has now been approved.

Vire Town Hall.

The town hall of Vire, in Calvados, has been destroyed by fire. The building was a superb specimen of seventeenth-century architecture.

Housing at Barnstaple.

Barnstaple Town Council have decided to erect thirty-two houses at Fair View, in addition to the scheme on the present housing sites.

Bridlington Spa.

The Ministry of Health have approved the application of the Bridlington Town Council to borrow £46,000 for the reconstruction of the Spa.

Doncaster Houses.

The Doncaster Council in committee have accepted the tender of Messrs. W. and A. Forsdyke, of Sheffield, for the erection of 132 houses at Balby, at a cost of £59,937.

Housing at Northwich.

The Northwich Rural Council have decided to apply to the Ministry of Health for sanction to a loan of £18,694 for the erection of forty-six houses in the townships of Barnton, Moulton, and Eddisbury.

Steel Houses for Dundee.

Dundee's share of the 2,000 steel houses offered by the Government to Scotland is 150 houses, and they are to be erected on the Craigiebank site, provided consent is obtained.

The Eiffel Tower.

Engineers who have just completed a detailed examination of the Eiffel Tower have issued a warning that, unless a more effective kind of protective paint can be found, the Eiffel Tower is doomed to ultimate destruction by rust.

Discoveries at York.

During excavations on the site of the new Carnegie Library at York several pieces of second-century Samian pottery, coins of Vespasian, and medieval objects have been found, together with a very fine specimen of a Roman drain pipe.

Blackheath Road Scheme.

Local opposition to the proposal of the Ministry of Transport to construct an arterial road across Blackheath Common has taken the form of preparing a petition to the Greenwich Borough Council. The petitioners submit a number of alternative proposals.

Housing at Dudley.

The Housing Committee of Dudley Corporation have recommended the acquisition of a site at Belper Road, Darby End, for £750, for the erection of twenty houses; and also an area of land in Watson's Green Road, containing over eight acres, which will permit of the erection of 124 houses.

Rennie Street?

A correspondent writing to the *Daily Sketch* points out that the name of Rennie, the designer or builder of Waterloo Bridge, is not to be found among the names of thoroughfares anywhere in the neighbourhood of the bridge. He suggests that his name should be commemorated.

Architect's Estate.

Mr. Frederick John Stevenson, of New Dover Road, Canterbury, for over thirty years architect and surveyor to the Howard de Walden estates in London, who died intestate and a bachelor without parent, left £65,705 gross, with net personalty of £65,466.

Beaumaris Castle.

Sir Williams Bulkeley has handed over the care of the historic castle of Beaumaris to the department of the Office of Works which looks after ancient monuments. Sir Williams was very anxious that the historic building should be properly preserved.

The Fitzwilliam Museum Extension.

Two anonymous benefactors have undertaken to provide sums of £30,000 and £20,000 for the extension of the Fitzwilliam Museum, Cambridge. The Senate of the university have authorized the syndicate to proceed with the extension according to the plans prepared by Messrs. Smith and Brewer.

Big Housing Scheme.

Subject to the sanction of the Ministry of Health, the London County Council proposes to carry out a great housing scheme near the new "Tube" terminus at Morden. It is hoped that 8,000 houses will be erected providing accommodation for about 35,000 people, and that work will begin in the summer of 1926.

Housing at West Bromwich.

A report presented by the Housing and Town Planning Committee to the West Bromwich Town Council recommended that the tender of Messrs. Richards, Smith & Co., Chasetown, for the erection of 206 houses on the Charlemont estate be accepted and that application be made for sanction to borrow £87,000 for the same.

Housing in Derry.

During 1925 the Derry Corporation have approved of plans for the erection of seventy-four houses under the housing subsidy scheme. The majority of them qualify for the absolutely free grant of £120, and will be exempt from rates for five years. In addition, fifty-seven ex-service men's houses were completed during the year.

Accidents in the Building Trade.

The Home Secretary recently stated that the number of accidents that occurred during the course of building operations in 1924 (which is the last year for which statistics are available) and for the four preceding years are as follows: 1,089 in 1920, 1,104 in 1921, 1,120 in 1922, 1,437 in 1923, and 2,374 in 1924. The figure for the year 1919 is not available.

Low-rental Houses at Nottingham.

A scheme to erect houses at an inclusive rental of 7s. 6d. per week has been brought before Nottingham City Council. The houses, seventy-eight in number, would cost £334. There would be two bedrooms, but no garden. The annual loss on each house will amount to £13 10s., of which the subsidy will provide £9, and the Corporation the remainder.

LAW REPORTS

Building Lease—Dilapidations—Right to Sue

Rye v. Purcell.

King's Bench Division. Before Mr. Justice McCardie.

This was an action by Mr. F. G. Rye, of Kingston-on-Thames, against Mr. W. A. Purcell, of Ealing, to recover damages and alleged breach of repairing and pointing obligations to certain premises in Warwick Street, Regent Street, W.

Mr. Greaves Lord, K.C., and Mr. Draper appeared for the plaintiff, and Mr. Rayner Goddard, K.C., and Mr. W. Williams for defendant.

The main facts of the case were not in dispute. It appeared that the defendant in 1900 obtained a lease of the premises, expiring in March, 1917, but on its expiration he " held over " as a quarterly tenant. In July, 1920, a building lease of the premises was assigned to plaintiff, and at the same time he acquired full freehold of the premises. Although the defendant should have given up possession at the declaration of peace in January, 1920, he did not do so, but stayed on till November, 1920, when he yielded up possession and left the premises, as plaintiff alleged, in a state of dilapidation. Defendant submitted that the plaintiff was not entitled to maintain that action against him. The first point raised on his behalf arose on a deed which purported to assign to the plaintiff all the benefits and conditions of a lease of September, 1895, and all rights of action for the non-observance of the covenants in that lease and also the full rights of a tenancy to defendant of February, 1917, together with all causes of action thereunder against the defendant.

There was a later agreement of September, 1918, which provided for continuance of defendant's tenancy, and plaintiff submitted that he had the right to save on that agreement, and which he said carried the obligation by the defendant to deliver up the premises in good and substantial repair at the end of his tenancy. Plaintiff became the reversioner in July, 1920, and defendant the tenant, and defendant gave up possession five months later. The question which arose was whether the plaintiff could sue the defendant on the September, 1918, agreement in respect to breach.

His lordship, after dealing with minor points, said the substantial question taken was whether the plaintiff was able to maintain the action by virtue of Section 10 of the Conveyancing Act, 1881, and did the section apply where the documents showing the terms of the tenancy were signed by the landlord only. In this case a letter of September, 1918, embodied in writing the verbal agreement made by the parties, and the writing was signed by the landlord's agent. In his view that letter constituted a sufficient agreement in writing to bring the present case within Section 10 of the Act. In support of his opinion it seemed to him that the agreement shown by the letter of September, 1918, and which admittedly governed the relations between the parties, could have been specifically enforced either by the tenant against the landlord, who had by his agent signed the writing, or by the landlord against the tenant, who had continued in possession of the premises. Further, it must be remembered that the relation of landlord and tenant was one not merely of contract, but also of estate. The contract of tenancy was peculiar in its aspects and incidents. That species of contract was well shown if the case were taken where a lease only signed and sealed by the landlord had been delivered by him to the tenant who had entered into possession thereunder, but had signed no counterpart. It would seem clear in such a case that there was a valid agreement in writing within Section 10 of the Conveyancing Act in spite of the absence of the counterpart signed by the tenant. In this case there was an agreement in writing within Section 10 of the Act, and plaintiff was entitled to sue the defendant for breach of the terms in the September, 1918, letter.

Judgment was given for the plaintiff with costs, and the question of damages referred to the official referee.

Jurisdiction—Purchase of a House

Gower v. Hoad, Hayes, claimant.

King's Bench Divisional Court. Before Lords Justices Bankes and Scrutton.

This was an appeal by the plaintiff Gower from a decision of the County Court Judge at Sevenoaks.

Mr. Craig Henderson, K.C., for plaintiff, said that in the County Court, before the case was opened before the Judge, the point was taken by counsel on the other side that the case was one in which the County Court had no jurisdiction. The Court was not told the facts, which were never gone into, and the plaintiff had never been allowed any opportunity of seeking to prove his case. The plaintiff entered into a contract in October, 1923, with the claimant, Mr. Fred Maxwell Hayes, whereby Mr. Gower agreed to purchase a plot of land, together with a bungalow, which Hayes, who was a builder, was erecting on the site. The contract provided for the payment of a deposit of £85 as 10 per cent. of the purchase price of £850, to Mr. House, the vendor's solicitor. The money was paid to Mr. House as stakeholder, and had the contract been completed that would have been part of the purchase price. The contract provided that the bungalow was to be completed by a certain date, and it would have been his (counsel's) case that Mr. Hayes had entirely repudiated the contract, and plaintiff was under no obligation to him. In these circumstances the plaintiff claimed from Mr. House the return of the £85. Mr. House said he had no authority from Hayes to pay the money over, and plaintiff then issued a County Court summons for the £85. This brought Mr. Hayes on the scene, and he put in a special defence in which he objected to the jurisdiction of the County Court, and alternately claimed specific performance. On that the Judge held that he had no jurisdiction. Mr. Hayes' contention was that the deposit of £85 was paid in connection with, or agreement for the sale and purchase of, property of which the purchase price was £850, and the order for the payment of the deposit to the plaintiff did necessarily involve the return, delivering up and cancellation of the agreement, and was not within the jurisdiction of the County Court. Counsel said his claim was for a sum of £85, and Section 56 of the County Court Act gave the Court complete jurisdiction to deal with any claim providing the amount did not exceed £100. The facts were that plaintiff went into occupation of the bungalow by invitation of the builder before it was completed. It was never completed, and plaintiff came out again. Mr. Hayes had accepted plaintiff's contention that he had repudiated the agreement and that the contract was at an end, because he had advertised the house for sale and anyone could buy it.

Mr. Hurst, K.C., for the respondent, supported the decision of the County Court Judge.

The Court dismissed the appeal.

Lord Justice Bankes, in giving judgment, said that the question was whether the decision of the County Court Judge that he had no jurisdiction to try the case was well founded. Appellant's case was it was a pure money claim, and the Court had jurisdiction. The contention on the other side was that the £85 was part of a larger matter, which was in effect a claim to recover the full amount of the contract. In this litigation, call the claim what one might, the fact remained that the money would only be recoverable if the plaintiff in fact proved that as between himself and the vendor the original contract was no longer enforceable. His Lordship considered it reasonably plain that as between the parties the question of title did come into the question. The title to the hereditament was in question, and on that ground alone he thought the appeal failed, though he thought the contention that the defence in substance amounted to a claim for the enforcement of the specific contract was supportable. The appeal would therefore be dismissed with costs.

Lord Justice Scrutton agreed.

The directors of Westminster Bank, Ltd., have declared a final dividend of 10 per cent. in respect of the £20 shares, making 20 per cent. for the year; and a final dividend of 6¼ per cent. on the £1 shares, making the maximum of 12½ per cent. for the year. The dividends will be payable (less Income Tax) on February 1.

RATES OF WAGES

GRADE	TOWN	AREA	CRAFTSMEN	LABOURERS	EXCEPTIONS
			s. d.	s. d.	s. d.
A	ABERDARE	S. Wales and Mon.	1 8	1 3½	
A1	Abergavenny	Do.	1 7½	1 2½	
B	Abingdon ..	S. Counties	1 6	1 1½	
A	Accrington	N.W.Counties	1 8	1 3½	
A3	Addlestone	S. Counties	1 6½	1 2	
A	Adlington ..	N.W.Counties	1 8	1 3½	Plasterers
A	Airdrie ..	Scotland	1 8	1 3½	1 9
C1	Aldeburgh	E. Counties	1 4	1 0½	
A	Altrincham	N.W.Counties	1 8	1 3½	
A	Ashton-under-Lyne	N.W.Counties	1 8	1 3½	
A3	Atherstone	Mid. Counties	1 6½	1 2	
B	BATH ..	S.W.Counties	1 6	1 1½	
B3	Banbury ..	S. Counties	1 4½	1 0½	
B2	Bangor ..	N.W.Counties	1 5	1 1	
A	Barnsley ..	Yorkshire	1 8	1 3½	
A	Barrow ..	N.W.Counties	1 8	1 3½	
A	Barry ..	S. Wales and Mon.	1 8	1 3½	Carpenters and Painters
A	Batley ..	Yorkshire	1 8	1 3½	
B	Bedford ..	E. Counties	1 6	1 1½	
A2	Berwick-on-Tweed	N.E. Coast	1 7	1 2½	
A3	Bewdley ..	Mid.Counties	1 6½	1 2	
A	Birkenhead	N.W.Counties	1 9	1 3½	1 8½
A	Birmingham	Mid. Counties	1 8	1 3½	
A	Bishop Auckland	N.E. Coast	1 8	1 3½	
A	Blackburn	N.W.Counties	1 8	1 3½	
A	Blackpool	N.W.Counties	1 8	1 3½	
A	Blyth ..	N.E. Coast	1 8	1 3½	
B3	Bognor ..	S. Counties	1 4½	1 0½	
A	Bolton ..	N.W.Counties	1 8	1 3½	
A3	Boston ..	Mid. Counties	1 6½	1 2	
B1	Bournemouth	S. Counties	1 6	1 1½	
A	Bradford ..	Yorkshire	1 8	1 3½	
A3	Brentwood	E. Counties	1 6½	1 2	
A	Bridgend ..	S. Wales and Mon.	1 8	1 3½	
B2	Bridgwater	S.W. Counties	1 5	1 1	
A1	Bridlington	Yorkshire	1 7½	1 2½	
A	Brighouse ..	Yorkshire	1 8	1 3½	
B1	Brighton ..	S. Counties	1 6	1 1½	
A	Bristol ..	S.W. Counties	1 8	1 3½	
A3	Bromsgrove	Mid. Counties	1 6½	1 2	
A	Burnley ..	N.W.Counties	1 8	1 3½	
A	Bursiem ..		1 8	1 3½	
A2	Burton-on-Trent	Mid. Counties	1 7	1 2½	
A	Bury ..	N.W.Counties	1 8	1 3½	
A3	Buxton ..	N.W.Counties	1 6½	1 2	
B	CAMBRIDGE	E. Counties	1 6	1 1½	
B3	Canterbury	S. Counties	1 4½	1 0½	
A	Cardiff ..	S. Wales and Mon.	1 8	1 3½	
A	Carlisle ..	N.W.Counties	1 8	1 3½	
B	Carmarthen	S. Wales and Mon.	1 6	1 1½	
B2	Carnarvon ..	N.W.Counties	1 5	1 1	
A	Castleford ..		1 8	1 3½	
B1	Chatham ..	S. Counties	1 5½	1 1½	
B1	Chelmsford	E. Counties	1 5½	1 1½	
B	Cheltenham	S.W. Counties	1 6	1 1½	Plumbers
A	Chester ..	N.W.Counties	1 8	1 3½	
A	Chesterfield	Mid. Counties	1 8	1 3½	1 9
B3	Chichester ..	S. Counties	1 4½	1 0½	
A	Chorley ..	N.W.Counties	1 8	1 3½	
A	Clitheroe ..	N.W.Counties	1 8	1 3½	
A	Clydebank	Scotland	1 8	1 3½	
B1	Colchester ..	E. Counties	1 5½	1 1½	
A	Colne ..	N.W.Counties	1 8	1 3½	
B1	Colwyn Bay	N.W.Counties	1 5½	1 1½	
A	Coventry ..	Mid. Counties	1 8	1 3½	
A3	Crewe ..	N.W.Counties	1 6½	1 2	
A3	Cumberland		1 6½	1 2	
A	DARLINGTON	N.E. Coast	1 8	1 3½	
A	Darwen ..	N.W.Counties	1 8	1 3½	
B3	Deal ..	S. Counties	1 4½	1 0½	
B1	Denbigh ..	N.W.Counties	1 5½	1 1½	
A	Derby ..	Mid. Counties	1 8	1 3½	
A	Dewsbury ..	Yorkshire	1 8	1 3½	
A	Doncaster ..	Yorkshire	1 8	1 3½	
C1	Dorchester	S.W.Counties	1 4	1 0½	
A3	Droitwich ..	Mid. Counties	1 6½	1 2	
A2	Dudley ..	Mid. Counties	1 7	1 2½	
A	Dundee ..	Scotland	1 8	1 3½	
A	Durham ..	N.E. Coast	1 8	1 3½	
B1	EASTBOURNE	S. Counties	1 6	1 1½	
A	Ebbw Vale	S. Wales and Mon.	1 8	1 3½	
A	Edinburgh	Scotland	1 8	1 3½	
A	E. Glamorganshire & Mon. S.	S. Wales and Mon.	1 8	1 3½	Painters
B	Exeter ..	S.W.Counties	1 7	1 2½	1 6
A	FLEETWOOD	N.W.Counties	1 8	1 3½	
B3	Folkestone	S. Counties	1 4½	1 0½	
A	Frodsham ..	N.W.Counties	1 8	1 3½	
B3	Frome ..	S.W.Counties	1 4½	1 0½	
A	GATESHEAD	N.E. Coast	1 8	1 3½	
B	Gloucester ..	S.W.Counties	1 6	1 1½	
B1	Gosport ..	S. Counties	1 5½	1 1½	
A3	Grantham ..	Mid. Counties	1 6½	1 2	
A2	Goole ..	Yorkshire	1 7	1 2½	Plasterers
A2	Gravesend ..	S. Counties	1 7	1 2½	
A	Greenock ..	Scotland	1 8	1 3½	1 9
A	Grimsby ..	Yorkshire	1 8	1 3½	
B1	Guildford ..	S. Counties	1 5½	1 1½	
A	HALIFAX ..	Yorkshire	1 8	1 3½	
A1	Hanley ..	Mid. Counties	1 7½	1 2½	
A	Harrogate ..	Yorkshire	1 8	1 3½	
A	Hartlepools	N.E. Coast	1 8	1 3½	
B2	Harwich ..	E. Counties	1 5	1 1	
B3	Hastings ..	S. Counties	1 4½	1 0½	
B	Hereford ..	S.W.Counties	1 6	1 1½	
B	Hertford ..	E. Counties	1 5½	1 1½	
A1	Heysham ..	N.W.Counties	1 7½	1 2½	
A	Huddersfield	Yorkshire	1 8	1 3½	
A	Hull ..	Yorkshire	1 8	1 3½	

The accompanying schedule is a selection only. Particulars for lesser localities not included may be obtained upon application in writing. The schedule of PRICES CURRENT, based on London rates, will be found on pages 125 and 126.

GRADE	TOWN	AREA	CRAFTSMEN	LABOURERS	EXCEPTIONS
			s. d.	s. d.	s. d.
A	ILKLEY ..	Yorkshire	1 8	1 3½	
A	Immingham	Mid Counties	1 8	1 3½	
B	Ipswich ..	E. Counties	1 6	1 1½	
C1	Isle of Wight	S. Counties	1 4	1 0½	
A	JARROW ..	N.E. Coast	1 8	1 3½	
A	KEIGHLEY	Yorkshire	1 8	1 3½	
B2	Keswick ..	N.W.Counties	1 5	1 1	
B	Kettering ..	Mid. Counties	1 6	1 1½	
A3	Kidderminster	Mid. Counties	1 6½	1 2	
B2	King's Lynn	E. Counties	1 5	1 1	
A1	LANCASTER	N.W.Counties	1 7½	1 2	Carpenters and Plasterers
A3	Leamington	Mid. Counties	1 6½	1 2½	
A	Leeds ..	Yorkshire	1 8	1 3½	
A	Leicester ..	Mid. Counties	1 8	1 3½	
A3	Lichfield ..	Mid. Counties	1 6½	1 2	
A	Lincoln ..	Mid. Counties	1 8	1 3½	
A	Liverpool ..	N.W.Counties	1 9	1 3½	1 8½
B	Llandudno	N.W.Counties	1 6	1 1½	
A	Llanelly ..	S.W. & Mon.	1 8	1 3½	
	London (12 miles radius)		1 9½	1 4½	
	Do. (12–15 miles radius)		1 9	1 4	
A	Long Eaton	Mid. Counties	1 8	1 3½	
A	Loughborough	Mid. Counties	1 8	1 3½	
B	Luton ..	E. Counties	1 6	1 1½	
A1	MACCLESFIELD	N.W.Counties	1 7½	1 2½	
B	Maidstone ..	S. Counties	1 5½	1 1½	
A	Manchester	N.W.Counties	1 8	1 3½	
A	Mansfield ..	Mid. Counties	1 8	1 3½	
B3	Margate ..	S. Counties	1 4½	1 0½	
A3	Matlock ..	Mid. Counties	1 6½	1 2	
A	Merthyr ..	S. Wales & Mon.	1 8	1 3½	
A	Middlesbrough	N.E. Coast	1 8	1 3½	
A	Monmouthshire Valley and E. Glamorgan	S. Wales & Mon.	1 8	1 3½	
A3	NANTWICH	N.W.Counties	1 6½	1 2	
A	Neath ..	S. Wales and Mon.	1 8	1 3½	
A	Newcastle ..	N.E.Coast	1 8	1 3½	
A	Newport ..	S. Wales and Mon.	1 8	1 3½	
A	Normanton	Yorkshire	1 8	1 3½	
A2	Northampton	Mid. Counties	1 7	1 2½	
A	North Staffs.	Mid. Counties	1 8	1 3½	
A	North Shields	N.E. Coast	1 8	1 3½	
B	Norwich ..	E. Counties	1 6	1 1½	
A	Nottingham	Mid. Counties	1 8	1 3½	
B	OAKHAM ..	Mid. Counties	1 5½	1 1½	
A	Oldham ..	N.W.Counties	1 8	1 3½	
A3	Oswestry ..	Mid. Counties	1 6½	1 2	
B	Oxford ..	S. Counties	1 6	1 1½	
A	PAISLEY ..	Scotland	1 8	1 3½	Plasterers 1 9
C	Pembroke	S. Wales and Mon.	1 4½	1 0½	
A	Perth ..	Scotland	1 8	1 3	Plasterers 1 9
A3	Peterborough	Mid. Counties	1 6½	1 2	
A	Plymouth	S.W. Counties	1 8	1 3½	Painters 1 7
A	Pontypridd	S. Wales and Mon.	1 8	1 3½	
B	Portsmouth	S. Counties	1 6	1 1½	
A	Preston ..	N.W.Counties	1 8	1 3½	
A	QUEENSFERRY	N.W.Counties	1 8	1 3½	
B	READING ..	S. Counties	1 6	1 1½	
B	Reigate ..	S. Counties	1 5½	1 1½	
A3	Retford ..	Mid. Counties	1 6½	1 2	
A	Rhondda Valley	S. Wales and Mon.	1 8	1 3½	
A	Rochdale ..	N.W.Counties	1 8	1 3½	
B	Rochester ..	S. Counties	1 5½	1 1½	
A1	Ruabon ..	N.W.Counties	1 7½	1 2½	
A2	Rugby ..	Mid. Counties	1 8	1 3½	
A3	Rugeley ..	Mid. Counties	1 6½	1 2	
A3	ST. ALBANS	E. Counties	1 6½	1 2	
A	St. Helens ..	N.W.Counties	1 8	1 3½	
A1	SCARBOROUGH	Yorkshire	1 7½	1 2½	
A	Scunthorpe	Mid. Counties	1 8	1 3½	
A	Sheffield ..	Yorkshire	1 8	1 3½	
A3	Shrewsbury	Mid. Counties	1 6½	1 2	
A2	Skipton ..	Yorkshire	1 7	1 2½	
B	Slough ..	S. Counties	1 5½	1 1½	
A2	Solihull ..	Mid. Counties	1 7	1 2½	
B	South'pton	E. Counties	1 6	1 1½	
B1	Southend-on-Sea	E. Counties	1 5½	1 1½	
A	Southport ..	N.W.Counties	1 8	1 3½	
A	S. Shields ..	N.E. Coast	1 8	1 3½	
A2	Stafford ..	Mid. Counties	1 7	1 2½	
A	Stockport	N.W.Counties	1 8	1 3½	
A	Stockton-on Tees	N.E. Coast	1 8	1 3½	
A	Stoke-on-Trent	Mid. Counties	1 8	1 3½	
B	Stroud ..	S.W.Counties	1 5½	1 1½	
A	Sunderland	N.E. Coast	1 8	1 3½	
A	Swansea ..	S. Wales and Mon.	1 8	1 3½	
B	Swindon ..	S.W. Counties	1 6	1 1½	
A1	TAMWORTH	N.W.Counties	1 7½	1 2½	
B1	Taunton ..	S.W. Counties	1 5½	1 1½	
A	Todmorden	Yorkshire	1 8	1 3½	
A2	Torquay ..	S.W.Counties	1 7	1 2½	
B1	Tunbridge Wells	S. Counties	1 4½	1 1½	
A	Tyne District	N.E. Coast	1 8	1 3½	
A	WAKEFIELD	Yorkshire	1 8	1 3½	
A2	Walsall ..	Mid. Counties	1 7	1 2½	
A	Warrington	N.W.Counties	1 8	1 3½	
A3	Warwick ..	Mid. Counties	1 6½	1 2	
B	Wellingborough	Mid. Counties	1 6	1 1½	
A	West Bromwich	Mid. Counties	1 8	1 3½	
A3	Whitby ..	Yorkshire	1 6½	1 2	
A	Widnes ..	N.W.Counties	1 8	1 3½	
A	Wigan ..	N.W.Counties	1 8	1 3½	
B	Windsor ..	S. Counties	1 6	1 1½	
A	Wolverhampton	Mid. Counties	1 8	1 3½	
A3	Worcester ..	Mid. Counties	1 6½	1 2	
A	Worksop ..	Yorkshire	1 8	1 3½	
B	Wycombe ..	S. Counties	1 6	1 1½	
B1	YARMOUTH	E. Counties	1 5½	1 1½	
A	York ..	Yorkshire	1 8	1 3½	

PRICES CURRENT

EXCAVATOR AND CONCRETOR

EXCAVATOR, 1s. 4½d. *per hour;* LABOURER, 1s. 4½d. *per hour;* NAVVY, 1s. 4½d. *per hour;* TIMBERMAN, 1s. 6d. *per hour;* SCAFFOLDER, 1s. 5½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Broken brick or stone, 2 in., per yd.	£0	10	0
Thames ballast, per yd.	0	13	0
Pit gravel, per yd.	0	18	0
Pit sand, per yd.	0	14	6
Washed sand	0	16	6

Screened ballast or gravel, add 10 per cent. per yd.
Clinker, breeze, etc., prices according to locality.

Portland cement, per ton	£2	19	0
Lias lime, per ton	3	0	0

Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.
Transport hire per day:

Cart and horse	£1	3	0	*Trailer*	£0	15	0
3-ton motor lorry	3	15	0	*Steam roller*	4	5	0
Steam lorry, 5-ton	4	0	0	*Water cart*	1	5	0

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

RETURN, fill, and ram, ordinary earth, per yd.	£0	2	4
SPREAD and level, including wheeling, per yd.	0	2	4
PLANKING, per ft. sup.	0	0	5

DO. over 10 ft. deep, add for each 5 ft. depth 30 per cent.

HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup.	£0	2	1
DO. 6 in. thick, per yd. sup.	0	2	10
PUDDLING, per yd. cube	1	11	6
CEMENT CONCRETE, 4-2-1, per yd. cube	2	5	0
DO. 6-2-1, per yd. cube.	2	0	0

DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.

LIAS LIME CONCRETE, per yd. cube	£1	18	0
BREEZE CONCRETE, per yd. cube	1	7	6
DO. in lintols, etc., per ft. cube	0	1	6

DRAINER

LABOURER, 1s. 4½d. *per hour;* TIMBERMAN, 1s. 6d. *per hour;* BRICKLAYER, 1s. 9½d. *per hour;* PLUMBER, 1s. 9½d. *per hour;* WATCHMAN, 7s. 6d. *per shift.*

Stoneware pipes, tested quality, 4 in., per yd.	£0	1	3
DO. *6 in., per yd.*	0	2	8
DO. *9 in., per yd.*	0	3	6
Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.	0	6	9
DO. *6 in., per yd.*	0	9	2
Portland cement and sand, see "Excavator" above.			
Lead for caulking, per cwt.	£2	5	0
Gaskin, per lb.	0	0	5½

STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft.	0	3	9
DO. 6 in., per ft.	0	5	0
DO. 9 in., per ft.	0	7	9
CAST-IRON DRAINS, jointed in lead, 4 in., per ft.	0	10	0
DO. 6 in., per ft.	0	13	6

Note.—These prices include digging and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

BRICKLAYER

BRICKLAYER, 1s. 9½d. *per hour;* LABOURER, 1s. 4½d. *per hour;* SCAFFOLDER, 1s. 5½d. *per hour.*

London stocks, per M.	£4	7	0
Flettons, per M.	3	6	0
Staffordshire blue, per M.	9	12	0
Firebricks, 2½ in., per M.	11	3	0
Glazed salt, white, and ivory stretchers, per M.	22	0	0
DO. *headers, per M.*	21	10	0
Colours, extra, per M.	5	10	0
Seconds, less, per M.	1	0	0

Cement and sand, see "Excavator" above.

Lime, grey stone, per ton	£2	12	0
Mixed lime mortar, per yd.	£1	6	0
Damp course, in rolls of 4½ in., per roll	0	2	6
DO. *9 in. per roll*	0	4	9
DO. *14 in. per roll.*	0	7	6
DO. *18 in. per roll*	0	9	6

BRICKWORK in stone lime mortar, Flettons or equal, per rod	35	0	0
DO. in cement do., per rod	37	0	0

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.

FACINGS, FAIR, per ft. sup. extra	£0	0	2
DO. T.L.B. Rubbers, gauged and set in putty, per ft.	0	4	6
DO. salt, white or ivory glazed, per ft. sup. extra	0	5	6
TUCK POINTING, per ft. sup. extra	0	0	10
WEATHER POINTING, per ft. sup. extra	0	0	3
GRANOLITHIC AND CEMENT PAVING, 1 in., per yd. sup.	0	5	0
DO. 1½ in., per yd. sup..	0	6	0
DO. 2 in., per yd. sup.	0	7	0
BITUMEN DAMP COURSE, ex rolls, per ft. sup.	0	0	7
ASPHALT DAMP COURSE, ½ in., per yd. sup.	0	8	0
DO. vertical, per yd. sup.	0	11	0
SLATE DAMP COURSE, per ft. sup.	0	0	10
ASPHALT ROOFING (MASTIC) in two thicknesses, ¾ in., per yd.	0	8	6
SKIRTING, 6 in.	£0	0	11
2½ in. BREEZE PARTITION BLOCKS, set in Cement, per yd. sup.	0	5	6
3 in. DO. DO..	0	7	0

THE wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade enquiry.

MASON

MASON, 1s. 9½d. *per hour;* DO. *fixer,* 1s. 10½d. *per hour;* LABOURER, 1s. 4½d. *per hour;* SCAFFOLDER, 1s. 5½d. *per hour.*

Portland Stone:			
Whitbed, per ft. cube	£0	4	4
Basebed, per ft. cube	0	4	7
Bath stone, per ft. cube	0	2	9½

Usual trade extras for large blocks.

York paving, av. 2½ in., per yd. super.	0	6	6
York templates sawn, per ft. cube	0	6	9
Slate shelves, rubbed, 1 in., per ft. sup.	0	1	8

Cement and sand, see "Excavator," etc., above.

HOISTING and setting stone, per ft. cube	£0	2	2

DO. for every 10 ft. above 30 ft., add 15 per cent.

PLAIN face Portland basis, per ft. sup.	£0	2	8
DO. circular, per ft. sup.	0	4	0
SUNK FACE, per ft. sup.	0	3	9
DO. circular, per ft. sup.	0	4	10
JOINTS, arch, per ft. sup.	0	2	6
DO. sunk, per ft. sup.	0	2	7
DO. DO. circular, per ft. sup..	0	4	6
CIRCULAR-CIRCULAR work, per ft. sup.	1	2	0
PLAIN MOULDING, straight, per inch of girth, per ft. run	0	1	1
DO. circular, do. per ft. run	0	1	4
HALF SAWING, per ft. sup.	0	1	0

Add to the foregoing prices if in York stone 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

SETTING 1 in. slate shelving in cement, per ft. sup.	£0	0	7½
RUBBED round nosing to do., per ft. lin.	0	0	6
YORK STEPS, rubbed T. & R., ft. cub. fixed	1	9	0
YORK SILLS, W. & T., ft. cub. fixed.	1	13	0

SLATER AND TILER

SLATER, 1s. 9½d. *per hour;* TILER, 1s. 9½d. *per hour;* SCAFFOLDER, 1s. 5½d. *per hour;* LABOURER, 1s 4½d. *per hour.*

N.B.—Tiling is often piecework.

Slates, 1st quality, per M:			
Portmadoc Ladies	£17	0	0
Countess	30	0	0
Duchess	36	0	0
Clips, lead, per lb.	0	0	4
Clips, copper, per lb.	0	2	3
Nails, compo, per cwt.	1	6	0
Nails, copper, per lb.	0	2	0

Cement and sand, see EXCAVATOR, *etc., above.*

Handmade tiles, per M.	£5	18	0
Machine-made tiles, per M.	5	8	0
Westmorland slates, large, per ton	9	5	0
DO. *Peggies, per ton*	7	10	0

SLATING, 3 in. gauge, compo nails, Portmadoc or equal:			
Ladies, per square	£4	0	0
Countess, per square	4	5	0
Duchess, per square	4	10	0
WESTMORLAND, in diminishing courses, per square	6	5	0
CORNISH DO., per square	6	3	0
Add, if vertical, per square approx.	0	13	0
Add, if with copper nails, per square approx.	0	2	6
Double course at eaves, per ft. aprox.	0	1	0
TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square	5	6	0
DO., machine-made DO., per square	4	17	0

Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

FIXING lead soakers, per dozen	£0	0	10
STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square	0	10	0
LABOUR only in laying slates, but including nails, per square	1	0	0

See "Sundries for Asbestos Tiling."

CARPENTER AND JOINER

CARPENTER, 1s. 9½d. *per hour;* JOINER, 1s. 9½d. *per hour;* LABOURER, 1s. 4½d. *per hour.*

Timber, average prices at Docks, London Standard. Scandinavian, etc. (equal to 2nds):

7×3, per std.	£23	0	0
11×4, per std.	33	0	0

Memel or Equal. Slightly less than foregoing.

Flooring, P.E., 1-in., per sq.	£1	8	0
DO. *T. and G., 1 in., per sq.*	1	8	0
Planed Boards, 1 in.×11 in., per std.	36	0	0
Wainscot oak, per ft. sup. of 1 in.	0	2	0
Mahogany, per ft. sup. of 1 in.	0	2	0
DO. *Cuba, per ft. sup. of 1 in.*	0	3	0
Teak, per ft.	0	3	0
DO., *cube*	0	15	0
FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube	0	5	9
DO. framed in floors, roofs, etc., per ft. cube	0	6	6
DO., framed in trusses, etc., including ironwork, per ft. cube	0	7	6

PITCH PINE, add 33½ per cent.

FIXING only boarding in floors, roofs, etc., per sq.	0	13	6
SARKING FELT laid, 1-ply, per yd.	0	1	6
DO., 3-ply, per yd.	0	1	9
CENTERING for concrete, etc., including horsing and striking, per sq.	3	10	0
SLATE BATTENING, per sq.	0	18	6
1 in. deal gutter board on firring, per sq.	3	11	0
1¾ in. moulded casements in 4 sqs., glazing beads and hung, per ft. sup.	0	3	0
2 in. DO., DO., per ft. sup.	0	3	3

PRICES CURRENT; *continued.*

CARPENTER AND JOINER; *continued.*

DEAL cased frames, oak sills, 2 in. d.h. sashes, brass-faced pulleys, etc., per ft. sup.	£0	4	0
DOORS, 4 pan. sq. b.s., 2 in., per ft. sup.	0	3	6
DO., DO., DO., 1¼ in., per ft. sup.	0	3	0
DO., DO., moulded b.s., 2 in., per ft. sup.	0	3	9
DO., DO., DO., 1¼ in., per ft. sup.	0	3	3
If in oak multiply 6 times.			
If in mahogany multiply 6 times.			
If in teak multiply 7 times.			
WOOD BLOCK FLOORING, standard blocks, laid in mastic herringbone :			
Deal, 1 in., per yd. sup., average	0	12	0
DO., 1¼ in., per yd., sup., average	0	14	6
DO., DO., 1¼ in. maple blocks	0	17	0
STAIRCASE WORK, DEAL :			
1 in. riser, 1¼ in. tread, fixed, per ft. sup.	0	3	9
2 in. deal strings, fixed, per ft. sup.	0	4	0

PLUMBER

PLUMBER, 1*s.* 9½*d. per hour;* MATE OR LABOURER, 1*s.* 4½*d. per hour.*

Lead, milled sheet, per cwt.	£2	6	6
DO. *drawn pipes, per cwt.*	2	7	0
DO. *soil pipe, per cwt.*	2	10	0
DO. *scrap, per cwt.*	1	4	0
Copper, sheet, per lb.	0	1	5
Solder, plumber's, per lb.	0	1	3
DO. *fine, per lb.*	0	1	7
Cast-iron pipes, etc. :			
L.C.C. soil, 3 in., per yd.	0	4	2
DO. *4 in. per yd.*	0	5	1
R.W.P., 2½ in., per yd.	0	1	10
DO. *3 in., per yd.*	0	2	2
DO. *4 in., per yd.*	0	3	0
Gutter, 4 in. H.R., per yd.	0	1	10
DO. *4 in. O.G., per yd.*	0	2	0
MILLED LEAD and labour in gutters, hashings, etc.	3	5	6
LEAD PIPE, fixed, including running joints, bends, and tacks, ½ in., per ft.	0	2	1
DO. ¾ in., per ft.	0	2	5
DO. 1 in., per ft.	0	3	3
DO. 1¼ in., per ft.	0	4	6
LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft.	0	6	6
DO. 3 in., per ft.	0	7	0
DO. 4 in., per ft.	0	9	9
CAST-IRON R.W. PIPE, at 24 lb. per length, jointed in red lead, 2½ in., per ft.	0	2	4
DO. 3 in., per ft.	0	2	8
DO. 4 in., per ft.	0	3	0
CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft.	0	2	6
DO. O.G., 4 in., per ft.	0	2	10
CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft.	0	7	0
DO. 3 in., per ft.	0	6	0
Fixing only :			
W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each	2	3	0
BATHS only, with all joints	1	18	0
LAVATORY BASINS only, with all joints, on brackets, each	1	8	0

PLASTERER

PLASTERER, 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour.*

Chalk lime, per ton	£2	14	6
Hair, per cwt.	0	18	0
Sand and cement see EXCAVATOR, *etc., above.*			
Lime putty, per cwt.	£0	2	8
Hair mortar, per yd.	1	7	0
Fine stuff, per yd.	1	14	0
Sawn laths, per bdl.	0	2	4
Keene's cement, per ton	5	5	0
Sirapite, per ton	3	12	0
DO. *fine, per ton*	3	19	0
Plaster, per ton	3	0	0
DO. *per ton*	3	12	6
DO. *fine, per ton*	5	12	0
Thistle plaster, per ton	3	9	0
Lath nails, per lb.	0	0	4
LATHING with sawn laths, per yd.	0	1	7
METAL LATHING, per yd.	0	2	3
FLOATING in Portland, 1 to 3, for tiling or woodblock, ¾ in., per yd.	£0	2	4
DO. vertical, per yd.	0	2	7
RENDER, on brickwork, 1 to 3, per yd.	0	2	7
RENDER in Portland and set in fine stuff, per yd.	0	3	3
RENDER, float, and set, trowelled, per yd.	0	2	9
RENDER and set in Sirapite, per yd.	0	2	5
DO. in Thistle plaster, per yd.	0	2	5
EXTRA, if on but not including lathing, any of foregoing, per yd.	0	0	5
EXTRA, if on ceilings, per yd.	0	0	5
ANGLES, rounded Keene's on Portland, per ft. lin.	0	0	6
PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin.	0	0	5
WHITE glazed tiling set in Portland and jointed in Parian, per yd. and up	1	13	0
FIBROUS PLASTER SLABS, per yd.	0	1	11

GLAZIER

GLAZIER, 1*s.* 8½*d. per hour.*

Glass : 4ths in crates :			
Clear, 21 oz.	£0	0	5
DO. *26 oz.*	0	0	6
Cathedral white, per ft.	0	0	5½
Polished plate, British ¼ in., up to 2 ft. sup.	0	2	5
DO. *3 ft. sup.*	0	3	2
DO. *7 ft. sup.*	0	3	9
DO. *25 ft. sup.*	0	4	3
DO. *100 ft. sup.*	0	5	1
Rough plate, ¼ in.	0	0	5⅞
DO. *¼ in., per ft.*	0	0	6
Linseed oil putty, per cwt.	0	16	0
GLAZING in putty, clear sheet, 21 oz.	0	0	10
DO. 26 oz.	0	0	11
GLAZING in beads, 21 oz., per ft.	0	1	0
DO. 26 oz., per ft.	0	1	3

Small sizes slightly less (under 3 ft. sup.).

Patent glazing in rough plate, normal span, 1*s.* 5d. to 1*s.* 10d. per ft.

LEAD light, plain, med. sqs. 21 oz., usual domestic sizes, fixed, and up, per ft. sup.	£0	3	6

Glazing only, polished plate, 6½d. to 8d. per ft., according to size.

DECORATOR

PAINTER, 1*s.* 8½*d. per hour;* LABOURER, 1*s.* 4½*d. per hour;* FRENCH POLISHER, 1*s.* 9*d. per hour;* PAPERHANGER, 1*s.* 8½*d. per hour.*

Genuine white lead, per cwt.	3	5	0
Linseed oil, raw, per gall.	0	4	2
DO., *boiled, per gall.*	0	4	5
Turpentine, per gall.	0	7	2
Liquid driers, per gall.	0	9	6
Knotting, per gall.	1	5	0
Distemper, washable, in ordinary colours, per cwt., and up	2	0	0
Double size, per firkin	0	3	6
Pumice stone, per lb.	0	0	4
Single gold leaf (transferable), per book	0	1	10
Varnish copal, per gall. and up	0	18	0
DO., *flat, per gall.*	1	2	0
DO., *paper, per gall.*	1	0	0
French polish, per gall.	0	19	0
Ready mixed paints, per gall. and up	0	10	6
LIME WHITING, per yd. sup.	0	0	3
WASH, stop, and whiten, per yd. sup.	0	0	6
DO., and 2 coats distemper with proprietary distemper, per yd. sup.	0	0	9
KNOT, stop, and prime, per yd. sup.	0	0	7
PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup.	0	0	10
DO., subsequent coats, per yd. sup.	0	0	9
DO., enamel coat, per yd. sup.	0	1	2½
BRUSH-GRAIN, and 2 coats varnish, per yd. sup.	0	3	8
FIGURED DO., DO., per yd. sup.	0	5	6
FRENCH POLISHING, per ft. sup.	0	1	2
STRIPPING old paper and preparing, per piece	0	1	7
HANGING PAPER, ordinary, per piece	0	1	10
DO., fine, per piece, and upwards	£4	0	2
VARNISHING PAPER, 1 coat, per piece	0	9	0
CANVAS, strained and fixed, per yd. sup.	0	2	8
VARNISHING, hard oak, 1st coat, yd. sup.	0	1	2
DO., each subsequent coat, per yd. sup.	0	0	11

SMITH

SMITH, *weekly rate equals* 1*s.* 9½*d. per hour;* MATE, *do.* 1*s.* 4*d. per hour;* ERECTOR, 1*s.* 9½*d. per hour;* FITTER, 1*s.* 9½*d. per hour;* LABOURER, 1*s.* 4*d. per hour.*

Mild steel in British standard sections, per ton	£11	0	0
Sheet steel :			
Flat sheets, black, per ton	18	0	0
Do., Galvd., per ton	27	0	0
Corrugated sheets, galvd., per ton	26	0	0

N.B.—Extra for galvanizing uncertain at present.

Driving screws, galvd., per grs.	£0	2	0
Washers, galvd., per grs.	0	1	1
Bolts and nuts, per cwt. and up	1	18	0
MILD STEEL in trusses, etc., erected, per ton	27	0	0
DO., in small sections as reinforcement, per ton	17	0	0
DO., in compounds, per ton	18	0	0
DO., in bar or rod reinforcement, per ton	20	10	0
WROT. IRON in chimney bars, etc., including building in, per cwt.	2	0	0
DO., in light railings and balusters, per cwt.	2	7	0
FIXING only corrugated sheeting, including washers and driving screws, per yd.	0	2	2

SUNDRIES

Fibre or wood pulp boardings, 2½d. per ft. sup. and up according to quality and quantity. The measured work price is on the same basis.

FIBRE BOARDINGS, fixed on, but not including studs or grounds, per ft. sup.	£0	0	6
Plaster board, per yd. sup.	0	1	7
PLASTER BOARD, fixed as last, per yd. sup.	0	2	8
Asbestos sheeting, $\frac{5}{32}$ in., grey flat, per yd. sup.	0	2	5
DO., *corrugated, per yd. sup.*	0	3	6
ASBESTOS SHEETING, fixed as last, flat, per yd. sup.	0	4	4
DO., corrugated, per yd. sup.	0	5	6
Asbestos composition.			
Flooring :			
LAID in two coats, average ¾ in. thick, in plain colour, per yd. sup.	0	7	0
DO., ½ in. thick, suitable for domestic work, unpolished, per yd.	0	6	6
Metal casements for wood frames, domestic sizes, per ft. sup.	0	1	6
DO., *in metal frames, per ft. sup.*	0	1	9
HANGING only metal casement in, but not including wood frames, each	0	2	10
BUILDING in metal casement frames, per ft. sup.	0	0	7
ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey	2	12	0
DO., red	2	17	6
Asbestos cement slates or tiles, $\frac{5}{32}$ in. punched per M. grey	17	0	0
DO., *red*	19	0	0

Waterproofing compounds for cement.

Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD

3 m/m alder, per ft. sup.	£0	0	2¼
4½ m/m amer. white, per ft. sup.	0	0	3¾
⅜ m/m figured ash, per ft. sup.	0	0	5
4½ m/m 3rd quality, composite birch, per ft. sup.	0	0	1¼