Edited by D. A. C. A. BOYNE, executive editor of The Architects' Journal

# ARCHITECTS' WORKING DETAILS

volume 1

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# INTRODUCTION

THERE IS MORE UNNECESSARY DUPLICATION of effort in architecture than in any other profession. Too many architects, faced with some problem of detailing—perhaps in a material they have not used before, or perhaps in answer to some unfamiliar demand are aware that others before them have been in a like position, but have no means of discovering how they set about solving the problem and what solution they arrived at. Each architect therefore starts anew, repeating others' experiments; at best wasting a lot of time before he arrives at the right result, at worst making mistakes that need not have been made if other people's experience had been available to him.

It is highly unsatisfactory that architecture should be created by so clumsy a process of trial and error. It does not occur in other professions. Doctors do not begin an operation without knowing how the same operation has been performed before, and without learning from others' experience what dangers are to be met with. Lawyers do not begin a case without looking up the existing precedents; in fact the professional (not to mention the scientific) tradition has been built up on the exchange of information between members of the same confraternity. Such books as this, like the pattern books of the eighteenth century, are designed to enable architects to exchange information on the contemporary problems of design. And it is important that they should do so, not only because they might as well have the benefit of others' experience, but because architecture itself grows and develops by exactly this means. It is largely an empirical art, which acquires refinement and maturity by a process of successive improvements, technical and aesthetic.

From this it becomes clear that the role of a book of details is not so much to provide ready-made solutions to given problems, as to record the latest stages that the study of a given problem has reached and to provide the architect with a starting point from which he can develop his own improvements and adaptations.

It is one of the functions of the architectural magazines to put architects' work on record, and *The Architects' Journal* has, over many years (interrupted only by the war), included a series of specially prepared pages in which interesting new solutions to all kinds of design problems have been illustrated by means of photographs and detailed drawings. A number of these working details, all concerned with domestic design, were collected together in book form just before the war. This book is now out of print. The present volume consists mostly of working details that have appeared in *The Architects' Journal* since publication was resumed after the war; the remainder—roughly one quarter—is drawn from the best of the pre-war details. A very few of these appeared also in the out-of-print volume published in 1939.

The details are classified under various headings—windows, staircases, furniture and fittings, balconies, heating and the like. Since this is the first of a series of volumes in which the same headings will be used, they will provide the architect with a gradually accumulating reference library of useful details, recording successful treatments of old and new problems. Thanks are due to the architects (listed on the contents pages) who have provided necessary information and given permission for their designs to be illustrated; also to the various draughtsmen responsible, especially to Mr. E. G. Johnson, who was in charge of *The Architects' Journal's* drawing office during most of the relevant period.

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# ARCHITECTS' WORKING DETAILS

# WINDOW WALL IN CAFETERIA: LABORATORY BUILDING IN ILLINOIS DESIGNED BY HOLABIRD AND ROOT AND BURGEE AND ASSOCIATES

The wall of this cafeteria consists of  $\frac{1}{4}$  in. plate glass panels 13 ft. 7 in. in height supported by steel mullions at 10 ft. centres





SECTION THROUGH EXTERNAL WALL SHOWING HEAD AND SILL OF WINDOW. scale 1/4 fuil size

OPENING LIGHTS IN GLASS BLOCK PANELS: MATERNITY HOSPITAL IN JERSEY Designed by grayson and le sueur

1

The hopper type opening lights in the glass block panels are in aluminium sub-frames bedded directly on to the glass blocks at sill and jambs





HORIZONTAL SECTION, scale 1/2 full size





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# WINDOW: COUNTRY PAVILION, SOUTH BANK EXHIBITION

DESIGNED BY BRIAN O'RORKE; R. T. JAMES AND PARTNERS (consulting engineers)

Each pane consists of two sheets of plate glass, with a coloured photographic negative between them, framed in hardwood





PLAN THRO' JAMB AND MULLION. scale 1/2 full size

## CANVAS LOUVRES TO WINDOW: COUNTRY PAVILION, SOUTH BANK EXHIBITION

DESIGNED BY BRIAN O'RORKE; R. T. JAMES AND PARTNERS (consulting engineers)

The green canvas louvres are electrically operated and when fully opened are at right angles to the window. When closed they lie parallel to the window with narrow vertical gaps between them





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B2

## WINDOW IN RESTAURANT: WATERLOO STATION GATE, SOUTH BANK EXHIBITION

DESIGNED BY SIR JOHN BURNET, TAIT AND PARTNERS; FREEMAN, FOX AND PARTNERS (consulting engineers)

The double row of opening lights at the bottom of the window are horizontally centre-hung and each is encircled midway, for strength, by a stainless steel hoop



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## WINDOWS WITH FLOWER BOXES: WATERLOO STATION GATE, SOUTH BANK EXHIBITION

DESIGNED BY SIR JOHN BURNET, TAIT AND PARTNERS; FREEMAN, FOX AND PARTNERS (consulting engineers)

The flower boxes have perforated aluminium fronts and each is flanked on either side by a panel of double aluminium sheeting filled with heat insulating material





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# DISPLAY WINDOW: MOTOR SHOWROOM IN NEW ORLEANS

DESIGNED BY CURTIS AND DAVIS

The inclined glass of the display window is held in aluminium sections and the shaped cantilevered canopy above is faced around the edge with ceramic tiles





SHOPFRONT: GOWN SHOWROOM IN LONDON, W.1 DESIGNED BY DOUGLAS STEPHEN AND PARTNER; BERNARD GOLD AND PARTNERS (architects to fabric)

The principal feature of the deeply-recessed window is a decorative glass panel on fine brass supports lighted from above and below by fluorescent tubes in the frame





SECTION THROUGH SHOPFRONT AT A-A. scale 1/2"=1-0"

# SLIDING WINDOWS: HOUSE NEAR HALLAND, SUSSEX

DESIGNED BY SERGE CHERMAYEFF

The garden front is divided by the timber framework into six bays, five with sliding windows and one with a fixed window section. The teak window frames enable the sections to be fined down to almost steel-frame dimensions. There are heating panels under the artificial stone extension of the terrace paving, and in the ceiling above







## DOUBLE WINDOW: HOUSE NEAR HALLAND, SUSSEX

DESIGNED BY SERGE CHERMAYEFF

This double window to the dining room is divided into two sections. One half is double glazed with special heating and ventilation to house tropical plants, which stand on a perforated metal plant stand. The other half has single glazing





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# SLIDING WINDOWS: HOUSE AT KINGSTON, SURREY

DESIGNED BY E. MAXWELL FRY

Externally a sunblind runs the whole length of the living room windows, and there is a flower box in reinforced concrete. The illustration below shows the interior of the living room. Concealed below the window level there are specially designed electric convection heaters





C

## ENTRANCE DOORS: WELFARE CENTRE AT BECKTON

## DESIGNED BY A. H. SHEARING (BRIAN COLQUHOUN AND PARTNERS)

The entrance doors of this welfare centre are constructed from extruded aluminium alloy sections, and they have panels of Georgian wired polished plate glass





PLAN THRO' DOORS AND FRAME scale 2 full size

# GLAZED SLIDING DOORS TO SUNROOM: HOUSE IN FLORIDA

DESIGNED BY RALPH S. TWITCHELL AND PAUL RUDOLPH

The sunroom measures approximately 41 ft. by 16 ft. and the glazed sliding doors are in each of the long sides covering openings of 20 ft.



DOORS



## AUDITORIUM ENTRANCE DOORS: ROYAL FESTIVAL HALL

DESIGNED BY ROBERT H. MATTHEW AND J. L. MARTIN: EDWIN WILLIAMS (senior architect-in-charge); PETER MORO (associated architect)

The doors are built up on a steel channel frame covered with extruded aluminium alloy sections. The padded leather facings are fixed to plywood on a blockboard core


DOORS





PLAN THROUGH DOORS AND FRAME. scale 1/2 full size

## FRENCH DOORS: HOUSE AT KINGSTON-ON-THAMES

DESIGNED BY TAYLER AND GREEN

The French doors to the garden from the living room have panels of fluted hardwood on either side and a sunblind above them





## ENTRANCE DOORWAY: FLATS AT TWICKENHAM

DESIGNED BY ERIC LYONS AND G. PAULSON TOWNSEND

The door, which is a single panel of plate glass framed in hardwood, is set between splayed jambs and a tilted lintel



#### DOORS



# ENTRANCE DOORS: OFFICES AT WALLSEND

DESIGNED BY RICHARD SHEPPARD AND PARTNERS

Panels of reeded glass framed in teak form the screen surrounding these entrance doors. The doors themselves are also framed in teak, but they have panels of plain plate glass



#### DOORS



PLAN THROUGH SCREEN AND ENTRANCE DOORS sale 1/2 full size

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## DOORWAY IN REGALIA ROOM: NORWICH CITY HALL

DESIGNED BY C. H. JAMES AND S. ROWLAND PIERCE

The room housing the Civic Regalia has double doors which fold back flat to the wall at night, when a double grille is locked across the opening. Mirrors in the room make every part instantly visible to the constable outside





#### SLIDING DOORS: R.I.B.A. BUILDING, PORTLAND PLACE, LONDON

DESIGNED BY G. GREY WORNUM

These ceremonial doors to the first-floor Reception Room and Exhibition Room, are panelled in Australian walnut, Indian laurel and rosewood. The doors are suspended from their track so that only light pressure is necessary for opening them and closing them





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D

#### BALUSTRADE: ROYAL FESTIVAL HALL

DESIGNED BY ROBERT H. MATTHEW AND J. L. MARTIN; EDWIN WILLIAMS (senior architect-in-charge); PETER MORO (associated architect)

Panels of toughened glass are held by bronze brackets between the anodised aluminium and plastic covered tubular metal balusters. The handrail is in mahogany





D2

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## STAIRCASE: SHOP AT WATFORD

DESIGNED BY BRIAN PEAKE

The staircase treads are of hardwood carried on aluminium alloy brackets which are fixed to timber carriage beams



STAIRCASES



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BALUSTRADE: AIRCRAFT BUILDINGS AT FILTON

DESIGNED BY ERIC ROSS

Any joints in the iron baluster are welded so that it appears as one length supporting the anodised aluminium handrail



STAIRCASES



# STAIRCASE: POWER AND PRODUCTION PAVILION, SOUTH BANK EXHIBITION

DESIGNED BY G. GRENFELL BAINES IN COLLABORATION WITH H. J. REIFENBERG; F. J. SAMUELY (consulting engineer)

The stairway of this exhibition pavilion is carried on a central carriage beam of tubular steel, this beam being supported from the ground by steel tubes. The stairway is of a welded construction, and the treads are made of cast iron and are fitted with carborundum inset tread grips





ELEVATION OF STAIRCASE. scale 18"= 1'-0"

DETAIL OF SUPPORT AT A. scale 1/2"= 1-0"

## STAIRCASE: LION AND UNICORN PAVILION, SOUTH BANK EXHIBITION

DESIGNED BY R. Y. GOODDEN AND R. D. RUSSELL; JOHN MORTON (assistant architect); R. T. JAMES AND PARTNERS, AND E. LEWIS (consulting engineers)

The oak treads of the staircase project just over a foot on either side of the central carriage and they are pierced by the ends of the baluster rods which are covered by large brass nuts



## STAIRCASES



### STAIRCASE: SCHOOL AT FLINT, MICHIGAN

DESIGNED BY LYNDON AND SMITH

The steel tread, riser and nosing of each stair is formed in one piece, the tread being filled with terrazzo and supported on angle members fixed to the metal string



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## STAIRCASE: POWER AND PRODUCTION PAVILION, SOUTH BANK EXHIBITION

DESIGNED BY G. GRENFELL BAINES IN COLLABORATION WITH H. J. REIFENBERG; F. J. SAMUELY (consulting engineer)

The staircase rests on a framework of box sections suspended by rods from the sides of the well and has additional support only under the stairs at the lower end





## STAIRCASE: HOUSE IN CHELSEA

DESIGNED BY WALTER GROPIUS AND E. MAXWELL FRY

The polished teak treads are supported on metal trays screwed to the steel channel strings. The balustrade has a teak handrail with glass panels carried in a steel channel between steel supports



STAIRCASES



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## GLASS PARTITIONS: OFFICE BUILDING IN CHICAGO

## DESIGNED BY FRIEDMAN, ALSCHULER AND SINCERE IN COLLABORATION WITH HARPER RICHARDS

The partitions are composed of corrugated glass panels which are held at the base in a rubber-tiled skirting and are bedded at the head straight into the plaster margin of the corridor ceiling. There are sliding doors to each office



Photograph : Carl Ullrich



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#### WAITING ROOM SCREEN: BANK IN LONDON, E.C.3

DESIGNED BY WESTWOOD SONS AND HARRISON; JAMES A. CRABTREE (assistant architect-in-charge)

The screen is constructed of narrow mahogany panels which are separated by prominent vertical ribs. The panels follow the double curve at the end of the screen





PART PLAN OF SCREEN scale 1/2 full size

# SCREEN IN CANTEEN: BUS STATION, NEWBURY PARK, ESSEX

DESIGNED BY OLIVER HILL; G. C. MANLY (liaison architect, London Transport Executive)

The upper part is of glass framed in aluminium: there are movable aluminium shelves on the kitchen side and fixed glass shelves between the hatches on the servery side of the screen







## DISAPPEARING PARTITION: R.I.B.A. BUILDING, LONDON DESIGNED BY G. GREY WORNUM

This partition, between the Henry Jarvis Memorial Hall and the Foyer, disappears to give extra space for meetings. The winding gear is beneath the Foyer, and the opening in the floor is covered by a hinged skirting. The purely diagrammatic sketch of the winding gear (right) shows the counterweight ropes passing over grooved pulleys connected by a chain to ensure even movement





## **ROOFS AND CEILINGS**

LIBRARY CEILING: SCHOOL IN OREGON, U.S.A. DESIGNED BY WILMSEN AND ENDICOTT

The timber sun baffles controlling the glare from the upper lights are extended outwards to form a screen over the main windows




### **ROOFS AND CEILINGS**

**ROOFS AND CEILINGS** 

### LIGHT LOUVRES: SCHOOL IN FRESNO, CALIFORNIA

DESIGNED BY DAVID H. HORN AND MARSHALL D. MORTLAND

The ends of the steel roof beams, cased in timber, extend to form supports for the redwood louvres

Photograph : Julius Shulman





### LAMELLA ROOF: LION AND UNICORN PAVILION, SOUTH BANK EXHIBITION

DESIGNED BY R. Y. GOODDEN AND R. D. RUSSELL; JOHN MORTON (assistant architect); R. T. JAMES AND PARTNERS, AND E. LEWIS (consulting engineers)

The use of metal jointing plates at the intersections of the lamellas allows each curve to sweep in an unbroken line across the full width of the roof



### **ROOFS AND CEILINGS**



### CORRIDOR ROOFLIGHT: SCHOOL IN OREGON, U.S.A.

DESIGNED BY WILMSEN AND ENDICOTT

The light from the pitched glazed roof over the corridor is broken by the deep timber crossmembers and is augmented by borrowed light from the classrooms on either side



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# ROOF: THAMES-SIDE RESTAURANT, SOUTH BANK EXHIBITION

DESIGNED BY FRY, DREW AND PARTNERS; OVE ARUP AND PARTNERS (consulting engineers)

The undulating roof of this restaurant is composed of two skins of sheet aluminium with a filling of cork in between



### ROOFS AND CEILINGS



# ROOF TO ASSEMBLY HALL: SCHOOL AT ST. PAUL'S CRAY, KENT

DESIGNED BY ELIE MAYORCAS, IN COLLABORATION WITH S. H. LOWETH

The roof of this school assembly hall is composed of woodwool slabs which are supported by light steel trusses, 8 ft. apart, with lattice bracings







# WALL FITMENT: HOUSE AT HANOVER, NEW HAMPSHIRE, U.S.A.

DESIGNED BY E. H. AND M. K. HUNTER

The lighting from the main window wall of the living room is supplemented by strip windows under the book shelves





Y

CLERESTORY LIGHTING AND BOOKCASE: HOUSE AT PLEASANTVILLE, NEW YORK Designed by gibbons and heidtmann

The lighting trough, which illuminates upwards from below the level of the clerestory windows, is also open at the bottom where it runs above the bookshelves



Photograph: Richard Averill Smith



### WALL FITMENT: HOUSE NEAR HALLAND, SUSSEX

DESIGNED BY SERGE CHERMAYEFF

This living room fitment is part of a continuous spine of cupboards running the length of the house. Compartments display ornaments, and there is a cocktail cabinet and the radiogram shown in the lower illustration





# SERVICE HATCH FITMENT: HOUSE NEAR HALLAND, SUSSEX DESIGNED BY SERGE CHERMAYEFF

The photographs show the hatch from the kitchen side and from the dining-room side. The hatch has been specially designed to give protection against noise and cooking smells in the kitchen, and it has two sliding panels and a felt-lined shutter for this purpose. It is part of the same continuous spine of fittings running the whole length of the house, of which the fitment illustrated on the preceding pages 90–91 is another part







# OFFICE DESK: PUBLISHING HOUSE IN NEW YORK, U.S.A.

DESIGNED BY CALEB HORNBOSTEL

The shaped table, integral with the bookshelves, inclines the executive towards his visitor and it is unencumbered by any but three small drawers at his left hand side





SECTION A-A THROUGH DESK TOP. scale 1/2"=1-0" SECTION B-B THROUGH DRAWERS. scale 1/2"=1-0"

# ADJUSTABLE SHELVES: SHOP AT HARLESDEN

DESIGNED BY BRIAN PEAKE

The mahogany shelves on tubular aluminium brackets may be inserted in almost any position on the perforated display screen, which is of cellulosed metal-faced plywood





DETAIL ELEVATION OF DISPLAY SHELF AND BRACKET, scale 1/2 full size

# GLASS SHELVES: HOMES AND GARDENS PAVILION, SOUTH BANK EXHIBITION DESIGNED BY ROBIN DAY

The glass shelves are supported on slender rubbercovered rods through the fronts of which are threaded fine brass cables to hold the shelves in position. The uprights are made of Honduras mahogany





PART SIDE AND FRONT ELEVATION OF FITTING. scale 1/4 full size

SIDEBOARD AND CHINA CABINET: HOMES AND GARDENS PAVILION, SOUTH BANK EXHIBITION DESIGNED BY LESLIE MATTHEW

This mahogany sideboard, which is designed as a buffet accessible from both sides, has a two-sided china display cabinet fitted above, with glass shelves and sliding glass doors





scale 1/2"= 1-0"

CHINA CABINET.

DETAILS OF HANDLE AND STUD. scale 1/2 full size

### TICKET STORAGE UNIT: ROYAL FESTIVAL HALL

DESIGNED BY ROBERT H. MATTHEW AND J. L. MARTIN; EDWIN WILLIAMS (senior architect-in-charge); PETER MORO (associated architect)

This double-sided mahogany fitting has adjustable ticket containers which can either slide laterally or be lifted out and re-inserted in another position







### BAR: ROYAL FESTIVAL HALL

DESIGNED BY ROBERT H. MATTHEW AND J. L. MARTIN; EDWIN WILLIAMS (senior architect-in-charge); PETER MORO (associated architect)

The counter front is of finely corrugated enamelled aluminium, and the fitting behind the counter is veneered in ash





# CROSS SECTION THRO' BAR SHOWING COUNTER AND PART OF BACK FITTING. scale 1/2"=1-0"

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# FURNITURE AND FITTINGS

# BOOKING OFFICE COUNTER: ROYAL FESTIVAL HALL

DESIGNED BY ROBERT H. MATTHEW AND J. L. MARTIN; EDWIN WILLIAMS (senior architect-in-charge); PETER MORO (associated architect)

The counter has a front of finely corrugated aluminium and a perforated aluminium access gate. The seating plans are shown on the illuminated glass panels between the ticket windows.





# CASH DESK: SHOP IN LONDON, W.6

DESIGNED BY DAVID STERN

The desk, which is faced with ribbed walnut panelling, has a built-in electric heater in the front and a curved glass screen





SERVICE COUNTER: EXTENSION TO PUBLIC LIBRARY, SCARBOROUGH Designed by paton watson

This service counter is in the lending library and is designed to facilitate rapid discharging of books and to reduce staff movements. Three points of service are provided: two for the discharge of returned books, and one for miscellaneous enquiries. Readers' tickets are arranged on sliding metal trays manipulated by the assistant seated at the service point




#### MUSIC STAND: ROYAL FESTIVAL HALL

DESIGNED BY ROBERT H. MATTHEW AND J. L. MARTIN; EDWIN WILLIAMS (senior architect-in-charge); PETER MORO (associated architect)

The aluminium alloy music stand is supported on two rubber wheels and a guide running in a track along the front edge of the platform







scale 2"= 1'-0"

#### TELEPHONE BOOTHS: ROYAL FESTIVAL HALL

DESIGNED BY ROBERT H. MATTHEW AND J. L. MARTIN; EDWIN WILLIAMS (senior architect-in-charge); PETER MORO (associated architect)

The telephone booths, which are supported on tubular steel columns, are faced on the front with veneered plywood and they are lined inside with perforated aluminium





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MOBILE PRACTICAL LECTURE DESK: NURSES' HOME AT LEWISHAM DESIGNED BY BERTRAM CARTER

The desk is constructed of plastic panels and it has a removable top which conceals a stainless steel sink and fittings. Connections are provided for supplying the desk with hot and cold water, gas and electricity







PART LONGITUDINAL SECTION.

SECTION A-A.



SECTION B-B scale : 12"= 1-0".

#### PULPIT: CHURCH AT CROSSFORD, LANARKSHIRE

DESIGNED BY BASIL SPENCE

This pulpit is a free standing one and it is constructed of oak with moulded panelling and it has a simple balustrade





CROSS SECTION scale 34"=1-0"



PLAN. scale 3/4"= 1-0"

OF OAK HANDRAIL.

LABORATORY SERVICES: RESEARCH LABORATORIES, BLACKLEY, MANCHESTER Designed by serge chermayeff



The adoption of a structural unit, and a uniform distribution of work benches throughout the building, made it possible to provide a series of service ducts capable of accommodating future extensions to every fume cupboard and laboratory. The services are carried in ducts in the floors under the benches. The fume cupboards (see example on the left) are on the corridor side of the laboratories, and their service controls are well set in to avoid accidental interference. The building's air-conditioning intake and extract ducts are in the corridor ceiling





#### LABORATORY BENCH: SCHOOL OF ANATOMY, CAMBRIDGE

DESIGNED BY STANLEY HALL AND EASTON AND ROBERTSON

Each student has a sink and points for gas, water and light. The services are accommodated horizontally at the back of the bench and descend to the floor at the end. Bench cupboards are in oak, and the wall behind is tiled to cill level





# LECTURE THEATRE SEATING: SCHOOL OF ANATOMY, CAMBRIDGE

DESIGNED BY STANLEY HALL AND EASTON AND ROBERTSON

The seating is constructed in teak, and each row has a continuous shelf fixed to the back of the row in front. The seats tip up in sections of two onto a rubber buffer. The stepping is constructed in concrete with screed and rubber finish, with teak nosings to the risers





## FITTED CUPBOARD: FLATS AT HIGHGATE, LONDON

DESIGNED BY LUBETKIN AND TECTON

A typical example of the fitted cupboards which are built into the bedrooms of this block of flats at Highgate. The roller shutter is provided to avoid interference with the swing of the door





### DESK AND DIVAN: EMBASSY COURT, BRIGHTON, SUSSEX

DESIGNED BY WELLS COATES

Both the desk and the divan have tubular steel supports. The divan is 6 ft. 10 in. long by 2 ft. 2 in. wide and it has an adjustable back rest







### AUDITORIUM BOX: ROYAL FESTIVAL HALL

DESIGNED BY ROBERT H. MATTHEW AND J. L. MARTIN; EDWIN WILLIAMS (senior architect-in-charge); PETER MORO (associated architect)

The base of the curved plaster front to each box is slotted for concealed lighting and there are recessed lighting fittings in the soffits underneath the upper boxes



#### BALCONIES



SECTION THROUGH FRONT OF AUDITORIUM BOX. scale: 2"= 1-0"

# BALCONY AND WINDOW WALL: HOUSE AT PALM SPRINGS, CALIFORNIA DESIGNED BY CLARK AND FREY

The cantilevered balcony is strutted at one end by tubular steel rods branching from the base of one of the columns which support the house



Photograph: Julius Shulman

BALCONIES



# BALCONY OVER ENTRANCE: UNIVERSITY LABORATORIES AT CAMBRIDGE

DESIGNED BY EASTON AND ROBERTSON

The reinforced concrete balcony is faced with Portland stone and has a lead-lined flower box running round the top



#### BALCONIES



BALCONY FRONT: PORTMAN DAY NURSERY, MARYLEBONE, LONDON Designed by stanley hall and easton and robertson

The front of this cot balcony is constructed of steel standards supported at intervals by steel stays, both embedded in the concrete curb, and obscured glass panels. The flooring is asphalt tiles. The handrail helps to stop anyone climbing the railings





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# BALCONY AND WINDOWS: HOUSE NEAR HALLAND, SUSSEX

DESIGNED BY SERGE CHERMAYEFF

The balcony runs the length of the house, and bedrooms have access to it. It has a teak balustrade, and a slat deck, removable in sections, laid on bituminous felt roofing. The slat deck allows rainwater to run away immediately. The louvre ventilators over doors and windows are baffled in the wall thickness against direct draught and whistle





#### BALCONIES



# CORNER BALCONIES: SENATE HOUSE, UNIVERSITY OF LONDON

DESIGNED BY CHARLES HOLDEN

These corner balconies, constructed in Portland stone, are tied into the structure with gun-metal holding down bolts. Underneath there are ventilation slots. The rainwater heads and pipes are in cast lead





# COVERED WAY: AIRCRAFT BUILDINGS AT FILTON

DESIGNED BY ERIC ROSS

Tubular steel frames and purlins carry the roof which is of rough cast wired glass with aluminium alloy glazing bars



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KEY PLAN SHOWING SETTING OUT OF WALKWAY. scale 1/32"= 1-0"

#### ORCHESTRA CANOPY: ROYAL FESTIVAL HALL

DESIGNED BY ROBERT H. MATTHEW AND J. L. MARTIN; EDWIN WILLIAMS (senior architect-in-charge); PETER MORO (associated architect)

The photograph shows the arrangement of plywood box girders and transverse beams, the access gangways and the method of suspension from the superstructure





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PORCH GRILLE AND FLOWER BOX: AIRCRAFT BUILDINGS AT FILTON DESIGNED BY ERIC ROSS

• The vertical slats of the natural cedarwood grille are supported by twisted steel rods grouted into the concrete flower box and carried on up to the canopy over the door


### COVERED WAYS AND CANOPIES



#### COVERED WAYS AND CANOPIES

# ENTRANCE PORCH CANOPY: HOUSE AT SEVENOAKS, KENT Designed by Walter Gropius and E. Maxwell Fry

The canopy of this entrance porch projects over a small paved terrace, and is constructed of pine rafters covered with boarding and bituminous felt. On the underside it is painted and left open. The house itself is timber framed, and the aim has been to have a thoroughly insulated construction. The windows are wood casements









# HEATING PANELS: SCHOOL AT LEEDS

DESIGNED BY R. A. H. LIVETT

The heating is placed below the windows and is concealed behind sheet steel panels which have narrow horizontal grilles at the top and the bottom



#### HEATING



SECTION THROUGH HEATING PANEL scale 4 full size



PART ELEVATION OF HEATING PANEL. scale 1"=1"-O"

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## FIREPLACE: HOUSE AT CHICHESTER, SUSSEX

DESIGNED BY POWELL AND MOYA

This fireplace at a house at Chichester is in the living-room and the solid fuel fire has hot air ducts which serve both the dining recess and the kitchen



#### HEATING



PLAN (showing air ducts below floor). scale  $\frac{3}{8} = 1' - 0''$ 













SECTION C-C. scale 34"=1-0"

# HEATING BY RADIATORS: BOW STREET POLICE COURT

DESIGNED BY G. MACKENZIE TRENCH

Air inlets in the external walls allow fresh air to be drawn over the radiators before entering the court. The removable front is in Australian walnut plywood and grilles are in bronze



## HEATING



# A FIREPLACE: LONDON GLIDING CLUB, DUNSTABLE, HERTS

DESIGNED BY CHRISTOPHER NICHOLSON -

The electric fire, in stainless steel, has been designed so that the elements are concealed behind the uppermost plate, making a guard rail unnecessary. The surround and the floor slab are in travertine marble, and the wall finish is of standard size sheets of insulating board





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