ENGLISH SHOP-FRONT S
OLD AND NEW
ENGLISH SHOP-FRONTS
OLD AND NEW
UNIFORM IN SIZE & STYLE WITH THIS VOLUME.

Crown 4to, handsomely bound in art canvas, gilt.
Price 21s. each, net.

OLD ENGLISH COTTAGES AND FARM-HOUSES.

A Series of Volumes illustrating the most typical and picturesque minor Domestic Architecture of England. Each volume contains 100 Collotype Plates with Descriptive Notes and Sketches.

1) KENT AND SUSSEX. Photographed by W. G. DAVIE and described by E. GUY DAWBER.

2) SHROPSHIRE, HEREFORDSHIRE, & CHESHIRE. Illustrating the half-timber buildings of these counties. Photographed by JAMES PARKINSON and described by E. A. OULD.

3) THE COTSWOLD DISTRICT (parts of Gloucestershire, Oxfordshire, Northants, and Worcestershire). Photographed by W. G. DAVIE and described by E. GUY DAWBER. Illustrating the well-defined and characteristic stone buildings of these hills.

Art canvas, price 15s. net.

OLD ENGLISH DOORWAYS.

A Series of Historical Examples from Tudor Times to the end of the XVIII Century. 70 Plates from Photographs by W. GALSWORTHY DAVIE. With Historical and Descriptive Text by H. TANNER, JR., A.R.I.B.A.

Art canvas, price 25s. net.

OLD ENGLISH CHIMNEY-PIECES.

A Series of Examples from the XV to the XVIII Centuries. Comprising upwards of 130 Collotype Plates, 100 from Photographs by W. GALSWORTHY DAVIE, and 30 from Sketches and Drawings. With Historical and Descriptive Introduction, including many Illustrations, by L. A. SHUFFREY. [In the Press.

Art canvas, price 25s. net.

OLD ENGLISH IRONWORK.

A Series of Exterior Examples of the XVII and XVIII Centuries. Comprising over 100 Plates, 80 from Photographs by HORACE DAN, and 20 of Drawings by various Architects. With a Historical Introduction, including many Illustrations by J. STARKIE GARDNER, F.S.A. [In the Press.
ENGLISH SHOP-FRONTs
OLD AND NEW

A SERIES OF EXAMPLES BY LEADING ARCHITECTS · SELECTED AND SPECIALLY PHOTOGRAPHED · TOGETHER WITH DESCRIPTIVE NOTES AND ILLUSTRATIONS

BY
HORACE DAN, M.S.A.
AND
E. C. MORGAN WILLMOTT, A.R.I.B.A.

LONDON:
B. T. BATSFORD, 94 HIGH HOLBORN
1907
PREFACE.

No apology is needed for the publication of a volume upon shop-fronts, a subject full of architectural interest. Owing to a mistaken policy of economy on the part of shop-keepers, or a feeling that an unbroken display of glass was all that was necessary, the erection of the shop-front has usually been left more or less to chance, with a result quite disastrous from an architectural point of view. A reaction has, however, set in, and many leading architects have of recent years given attention to the design of this important feature of street architecture.

It is hoped that the undoubted merit of a large number of the carefully selected examples given in this book will persuade architects in general that the shop-front has infinite possibilities of good architectural treatment. It may also help commercial men to understand the qualities that make an artistic and effective front. It is desirable that the shop-keeper should realize that with a general public gradually becoming more appreciative of what is not commonplace or vulgar in design, it behoves him to make his shop-front architecturally interesting and attractive.

To Mr. Dan has fallen the task of seeking for and photographing most of the examples, Mr. Willmott having undertaken the writing of the descriptive notes, and the preparation of the illustrations to Chapter III.

The proprietors of “The Architectural Review” were
good enough to place the illustration of No. 137, Long Acre, London, at the disposal of the publisher, while to Mr. George Walton the authors have to tender their thanks for the loan of the illustration of the Kodak Shop, Brussels, and the working drawings of No. 40, West Strand. Mr. C. G. Harper has kindly allowed the publisher to reproduce his effective drawing of the old Bulk Shop in Clare Market. The illustration of the old shop-front in Brewer Street, London, was reproduced from the portfolios of the Society for Photographing Relics of Old London, by the courtesy of Mr. Alfred Marks. Mr. J. C. Traylen, Mr. Ernest Hazell and Mr. Palser considerably assisted the authors by allowing them the use of the drawings bearing their respective names; while to Messrs. Carter and Co. of Poole, Messrs. Singers, and Mr. W. S. Campbell of London, the authors are indebted for the use of the photographs of Plates xxxvii, xlili, and v respectively.

The authors are pleased to have this opportunity of thanking their publisher for valuable help and suggestions throughout the preparation of their book.

HORACE DAN.

E. C. MORGAN WILLMOTT.
# CONTENTS

**CHAP.** | **THE OLD SHOP-FRONT (Plates i-xiii)** | **PAGE.**
--- | --- | ---
I | 1

II | **THE ARCHITECTURE OF THE MODERN SHOP-FRONT (Plates xiv-xxxv)** | 15
--- | --- | ---
 | The Recessed Shop-Front | 17
 | The Type Shop-Front | 23
 | The Projecting Shop-Front | 23
 | The Corner Shop | 24
 | The Double-Storied Shop-Front | 25
 | The Shop-Front in Series | 28

III | **THE PRACTICAL REQUIREMENTS OF THE MODERN SHOP-FRONT (Plates xxxvi-lii)** | 30
--- | --- | ---
 | Materials | 31
 | Glazing | 33
 | Lettering | 34
 | Lighting | 36
 | Construction | 38
 | Stall-Boards and Pavement Lights | 41
 | Sun-Blinds and Roller Shutters | 44
 | Entrances | 46
 | Condensation | 47
LIST OF PLATES.

CHAPTER I.

PLATE.
I  Butcher Row, Shrewsbury.
II No. 34 Haymarket, London.
III No. 15 Cornhill, London.
IV Nos. 14A and 14B Brewer Street, London.
V No. 56 Artillery Row, Aldgate, London.
VI No. 46 Greek Street, London.
VII No. 9 Norton Folgate, London.
VIII No. 181 High Holborn, London.
IX No. 102 Dean Street, London.
X No. 4 Market Place, Faversham.
XI No. 771 High Road, Tottenham.
XII No. 225 Oxford Street, London.
XIII No. 102 New Oxford Street, London.

CHAPTER II.

XIV No. 101 High Holborn, London.
XVI No. 65 St. Paul's Churchyard, London.
  W. Ernest Hazell, Architect.
LIST OF PLATES.

XVII No. 136 Cheapside, London.
XVIII Read and Macdonald, Architects.
XXII No. 80 George Street, Edinburgh. John Burnet and Sons, Architects.
XXIII No. 16 Buchanan Street, Glasgow. Charles E. Dawson, Architect.
XXIV No. 44 Old Compton Street, London.
XXV No. 7 Portugal Street, London. Horace Field, Architect.
XXVI No. 5 Queen Victoria Street, London. George Walton, Architect.
XXVII No. 83 Church Street, Liverpool. T. Myddleton Shallcross, Architect.
XXVIII No. 17 Charterhouse Street, London.
XXIX Market Place, Enfield. Reginald Blomfield, Architect.
XXX No. 10 Dover Street, London. Walter Cave, Architect.
XXXI No. 103 High Road, Kilburn, London.
XXXIII No. 79 New Cavendish Street, Marylebone, London. George Harvey, Architect.
XXXV Nos. 46–48 Lombard Street, London.
CHAPTER III.

LIST OF PLATES.

PLATE.


XXXVII  No. 5 Commercial Street, Bournemouth.

XXXVIII  No. 42 Dale Street, Liverpool.

XXXIX  Church Street, Liverpool.

XL  Nos. 11 and 12, Finsbury Square, London.

XLI  No. 5 Old Bond Street, London.


XLIII  No. 186 Finchley Road, London.

XLIV  No. 225 Finchley Road, London.

XLV  No. 45 Dover Street.

XLVI  No. 88 Strand, London.

XLVII  No. 329 Holborn, London.

XLVIII  St. Ann's Street, Manchester.

XLIX  No. 217 Sauchiehall Street, Glasgow.

L  Argyle Street, Glasgow.

LI  Montagne de la Cour, Brussels.

LII  No. 40 West Strand, London.
LIST OF ILLUSTRATIONS IN THE TEXT.

CHAPTER I.

1. Old Bulk Shop, Clare Market, London . . . . 2
2. From an old print of Cheapside, London . . . 5
3. Old Shop, Abbey Street, Faversham . . face p. 6
4. No. 60 Palace Street, Canterbury . . . . 6
5. No. 137 Long Acre, London . . . . 8
6. Old Shop, Louth, Lincolnshire . . . . 9
7. Saddler’s Shop, St. Mary’s Street, Stamford . . 9
8. Jeweller’s Shop, High Street, Stamford . . 10
9. Details of Jeweller’s Shop, High Street, Stamford . . 11
13. Design for a Shop.—Late Eighteenth Century . . 14

CHAPTER II.

14. No. 65 St. Paul’s Churchyard, London . . . . 18
15. Section of No. 65 St. Paul’s Churchyard, London . 19
16. Section of No. 65 St. Paul’s Churchyard, London . 19
17. No. 25 Cheapside, London . . . . 21

CHAPTER III.

18. No. 40 West Strand, London . . . . 37
19. An Elevation, Plan, etc., of a Typical Shop-Front . 39
20. Section of a Shop-Front . . . . 40
21. Section of a Shop-Front . . . . 42
22. No. 18 Cockspur Street, London . . . . 43
23. Section of Recessed Shop-Front . . . . 44
24. Plan of a Shop-Front with Revolving Doors . . 47
25. Section of a Shop-Front . . . . 48
IT would be hard to state definitely what the first shop-front was like. Historians have been lax in this respect. They have told of sale and of barter, and the historical and geographical causes which made these things possible. Very little information is at hand, however, when enquiry is made as to the character of the buildings or shops, from which the early merchants sold or exchanged their commodities.

The first and primitive shop was probably a simple movable trading booth, capable of being easily taken down, and carried from this place to that, and structurally only just strong enough for such buffettings of weather as it might be expected to withstand in the open places of the markets. For in early times the fair and the open market were the chief means of effective retail trading. Even in this, the twentieth century, the lack of progressiveness upon the part of the authorities concerned is responsible for the continuance of many street markets in London; markets which are as primitive in their form and appurtenances as the booths of the early merchants. That many of the most cultured and civilized of the early nations exhibited the same indifference to their shopping places must be admitted, for the stories of their times as deduced by antiquarians and archaeologists seem to indicate that the Venetians, the Egyptians, the Assyrians, and even such a nation of traders as the Carthaginians, all had nothing more substantial to trade from than the most primitive wooden booths. At Pompeii, however, there are sufficient remains to indicate that a large number of shops in this ancient and populous city were built of brick and stone. In the
house of Pansa it is possible there were three shops, with the remains of counters and dwarf walls, evidently for the storage of goods. Besides this, staircase remains suggest that the shops had apartments over. There were two other shops, one evidently a baker's, as a bakehouse is attached, and the other a corner shop with splayed corner entrance, large windows and attached stores.

Fig. 1. OLD BULK SHOP, CLARE MARKET, LONDON.

The trading booth of the old world must have remained unchanged and unimproved until the middle ages, when a certain progression is noticeable, insomuch as the shop, instead of being a temporary structure, became a permanent part of the building. It was, however, still unpretentious and relatively unimportant. At first it was merely an opening and simple framework filled at night with shutters. It may or may not have been glazed, as, although glass according to Bede was introduced into England as early as 674.
A.D., it was not generally known of until about 1180. Even then it was but sparingly used, being expensive to procure and fix. The shop opening was sometimes closed at night with a wooden shutter hinged to the frame of the window. In the daytime this shutter was let down and rested upon a wooden leg or bracket, the flat table thus formed being used for the display of the goods.

From the first mediæval shop was developed other types which appropriately enough were termed Bulk Shops, and which were more prominently noticeable in London. The inset sketch (Fig. 1), is a reproduction of one of these early fronts. This was a poulterer's shop in Gilbert's Passage, Clare Market, W.C. It was destroyed in 1878, and was the last existing shop of its type. An old act of 1666 (believed to have been drawn up by Wren) has some curious enactments with relation to shop-fronts which doubtless prompted the development and largely affected the construction of these ancient Bulk Shops. “For conveniency of shops . . . no bricks, jetties, windows, posts, or anything of the like sort, shall be made or erected in any streets, lanes, or by-lanes, to extend beyond the ancient foundations, nor that any house be set further into the street than the ancient foundations, saving only that in the high and principal streets it shall be lawful for the inhabitants to suffer their stall-boards (when their shop windows are set open) to turn over and extend 11 in. and no more from the foundations of their houses into the street for the better conveniency of their shop windows.”

It will be seen on reference to the illustration that the hinged shutter has become the top of a fixed and permanent base, while an overhanging pent roof (the result of a further enactment of the 1666 act which required the erection of such a roof over the footpath) projected over the bulk upon which the shutter rested when down. These bulks at night became the hard and uncomfortable, though at least weather protected couches of the homeless and bedless of London in the early days of the seventeenth century.

Plate i is an illustration of a fifteenth century shop-front from Shrewsbury, and it is very fortunate that such an example still remains to show the class of shop erected during the Tudor period. It will be noticed that this front is entirely in wood, but it is known that there were also carried out during the fifteenth century a considerable number of shop-fronts in stone. In the example illustrated the entire building is in half-timber work, the upper portions of the building projecting out one above the other. In the stone
fronts a wide arch usually spanned the main opening, which had a side entrance. From this a staircase led to the "solar" over. Seldom, though, were such stern materials as stone or brick employed for shop-fronts, and with the accession of Elizabeth the adaptation of wood and half-timber for both shop-front and building became generally prevalent.

At Chester certain local conditions were responsible for a type of double storied shops, which were known and famed as the "Chester Rows." Amongst modern writers there exists considerable difference of opinion as to their origin. In certain portions of Chester, notably Foregate Street and Watergate Street (South), the upper storey of the building projected out so considerably over the lower storey that props or columns were required to be placed upon the pavement edge in order to support the projecting superstructure. This created a collonade, artistic and useful, and these shops became the prototype of the modern idea, carried out in stone at the Rue de Rivoli and certain other streets in Paris; also at the Ritz Hotel, London. Of the advantages of the Rows the writer in "Vale Royal" notices the most obvious, for he says, describing them, "that a man may go dry from one place of the city to another, and never come into the street, but go as it were into galleries, which they call the Roes; which have shops on both sides, and underneath, with divers fair stairs to go up or down the street." Another writer, Dr. Brushfield, notices only their defects, for he says "that the Shops are all so dark and close that a Stranger riding thro' can see none; and 'tis otherwise very incommodious."

It is a matter for regret that it is not possible to include an illustration of a Jacobean shop-front. The last of these, and an excellent example from Exeter, was destroyed some two years ago. Generally speaking, however, they possessed no distinguishing characteristics of form or plan, though decoratively they may possibly have been interesting. Indeed it is easy to believe that the designers of those times thought enough of the shop-front to give it that elaborate richness of effect which made the adjuncts of their buildings so architecturally abnormal. In the smaller towns and villages during the seventeenth century, the marked tendency in domestic work to overhang the several upper stories of the buildings was directly responsible for small projecting oriel shops supported on brackets. Sometimes these small bays were roofed with a simple little pent roof, but more often they modestly
Fig. 2. FROM AN OLD PRINT OF CHEAPSIDE, LONDON.
hid themselves under the concealing soffit of an upper projecting storey.

Many such projecting oriel shop-fronts are shown in the old print of Cheapside, or West Cheap as it was originally called (Figure 2), the date of which is about 1700.

These oriel bays gradually became more important and more obtrusive. They were given a good projection into the street, a permanent base instead of the simple wooden bracket of their earlier support, and on occasions, a large covering lean-to roof. Indeed they finally projected them so far on to the paths and pavements as to constitute a nuisance to traffic and an inconvenience to pedestrians. It may possibly be because of this that a bye-law made at the end of the seventeenth century limited the projection of bow or bay windows to 10 in. in a public place and 5 in. in a byepath or lane. A natural result of the passing of this bye-law was the creation of the delicately flat projecting bow windows which were such a marked feature of the Queen Anne and succeeding periods. Figure 3 is an illustration of an old shop-front at Faversham. Its simplicity of form and detail are excellent, and it is a fair illustration of the type of shop-front which evolved itself from the projecting oriel shops mentioned above.

The eighteenth century was a remarkable time in so far as the development of shop-fronts was concerned. With the accession of George I the distributive industries of the country seemed to become suddenly imbued with a revolutionary progressiveness, which, until the time of William IV, was responsible for the erection of an extraordinary number of shop-fronts of good architectural character. Indeed, in a consideration of the work of this period, a permanent feeling of regret is felt that the conditions of business life have so changed, as to render commercially ineffective the need of the further creation of such excellent old shop-fronts as the famous tobacconists in the Haymarket, London (Plate ii). Surely amongst many old fronts that are interesting, many that are quaint, none are more suggestive of refinement, and of that excellent proportion of form and detail, which are all the essentials of a precise architectural effectiveness. Note the charming fanlight to the doors with their radiating glazing bars, the excellent detail of the frieze and cornice and even the successful architectural modesty of the doors. This front is especially interesting insomuch as it seems fairly certain that it was originally designed for the set purposes of the
Fig. 3. OLD SHOP, ABBEY STREET, FAVERSHAM.

Fig. 4. NO. 60 PALACE STREET, CANTERBURY.
THE OLD SHOP-FRONT.

business of a tobacco and snuff merchant. The date is about 1770.

Plate iii is an illustration of the oldest shop-front still existing in the city of London. It is often referred to as "The Little Green Shop in Cornhill," but is still better known as "Birch's." For a good many years the interesting and delicate carving gracing the spandrels and mullions of the simple three-light window was hidden by the paint which many generations had applied year by year. Recently, however, all these coats of paint—it is estimated there were about two hundred—were burnt and scraped off. The carving thus revealed is of considerable merit and suggests that the shop might possibly have been erected during the Adams period. It is asserted, however, that this little front was built quite a hundred years before this time; probably during the reign of George I. The original proprietor was one Samuel Horton who was afterwards joined by a Samuel Birch. The latter was Lord Mayor of London, 1815, and had some reputation as a dramatist and verse writer. He was nick-named "Mr. Pattyman" because of his connection with the pastry-cook business. About 1830 this business became and still continues the property of Messrs. Ring and Brymer, the well-known caterers.

In the example from Brewer Street, London (Plate iv), probably an early eighteenth-century design, the treatment is somewhat exceptional. At the same time it marks a step in the development of shop-front designing. Here the architect has cast aside the shackles of an already born and already fettering commercial predication and boldly adopted for the decoration of a shop premises, an imperfectly understood, but in this case perfectly adapted Renaissance inspiration.

Plate v is probably contemporary with the Brewer Street example, the heavy character of the detail in each being very similar. In the example from Artillery Row the general effect is, however, much richer. The good architectural treatment of the two doorways is distinctive of a design for a shop-front, which, while owing much to its classic form and details, owes more to the clever and original manner of their adaptation. Such a front as this is worthy of the highest praise.

The example from Greek Street, Soho (Plate vi), while not laying claim to any great distinction is still of more than average interest. There is something potently effective in the charming, though somewhat rustic bareness of the simple Ionic columns,
Although the fronts of the eighteenth century are considerably varied, yet there are certain marked characteristics common to them all. The windows, for instance, are almost invariably divided up into squares by means of moulded glazing bars, these bars becoming lighter in form as time advanced. Indeed, in shop-fronts, their most reliable guide in regard to date is the heaviness or lightness of the woodwork details. Thus the shop-fronts of the nineteenth century are more refined and delicate than the sturdy and perhaps more architectural fronts of the seventeenth or eighteenth centuries. Semi-circular fanlights decorated with radiating and curved glazing bars are very common. Cornices and pilasters are very much alike in the manner of their use, the enrichments however being plentifully varied. Most of the fronts are refined and well proportioned, due recognition having been given to the limited uses of the material, the latter being invariably wood. A classic influence upon the nature of the mouldings and details is quite pronounced. Thin pilasters are used a great deal. These are usually without caps of any kind. Often they are recessed or fluted or simply panelled.

In form or plan absence of any limitation in regard to straightness of frontage, is always sure to produce the effective and characteristic bowing of the main window. The stall-boards are usually pretty high. Sometimes they are panelled in wood and very often additionally protected by some excellent wrought ironwork of good character and design. Bead-butt and bead-flush doors are greatly in favour, while sliding shutters are sometimes used in preference to the clumsy hinged boards of the previous century.

The chemist's shop from Norton Folgate, London (Plate vii), is an excellent example of these distinctions of form and detail, which were the guiding characteristics of the shop-fronts of the eighteenth century. Besides this, however, the design has a charm and grace of its own, a charm no doubt extracted from the individuality of its clever designer. What a centralizing and enriching effect too, the capitaly modelled eagle has upon the effectiveness of the composition.

Plate viii has many of the merits attached to the Haymarket front, viz: directness, suitability, and restraint. The curved centre portion is a pleasing variation, and at the same time a typical variation of plan. The carved brackets each side of the doors are simple and honest.

Plate ix is a remarkably clever and interesting design. Artis-
Fig. 6. OLD SHOP, LOUTH, LINCOLNSHIRE.

Fig. 7. SADDLER'S SHOP, ST. MARY'S STREET, STAMFORD.
tically its merits are too obvious to need any encouraging commentary from the writer. Surely, though, too much praise cannot be given to the excellent proportioning and balancing of all the parts, the careful distribution of voids and solids, and the pleasing and logical recognition of the trite value of a curve properly transposed against the necessary straight.

The Canterbury example (Figure 4) is in some respects not unlike Plate ix. In both the architect has cultivated that originality which can find easy expression in quaintly curved and varied glazing bars. Figure 5, although not especially distinctive, calls for illustration if only by reason of the careful refinement of its very characteristic detail.

It will be opportune, perhaps, to here note the good character of the lettering in most of these fronts, and it is a natural reversion of thought from this to a characteristic of the mediæval shop-front. In the latter the shopkeeper sought for some quiet, often artistic, always quaint, and never vulgar advertisement in curiously devised signs which proclaimed his calling and the goods he sold. Lombard Street, London, is very famous in this connection, and it is easy to picture this street as it appeared with its hundreds of hanging signs. Besant describes the signs of old London as a nuisance. He tells us that the many pranks of wind and rain so rusted the bearings of their hinges, that the musical symphonies they rendered at nights, were an intolerable nuisance to the peaceful citizen. That most of these signs have disappeared, and that none of the early Victorian fronts possessed them is easily explained by the fact that an act passed about 1667 prohibited the projection of them into the streets. The old print of Cheapside (Figure 2) shows many old and interesting signs.

Figure 6 is a front from Louth in Lincolnshire. Many such are still existing in the country, and although neither elaborated by detail or made architecturally obtrusive by form, they have a quiet and pleasing dignity of their own which exemplifies the need of their modest good qualities being properly appreciated.

The saddler's shop from Stamford (Figure 7) is one of the many fronts in this town, which has helped to contribute largely to a correct historical knowledge of the work of the later Renaissance. It is probably earlier in date than the two fronts last described. Especially pleasing in this design is the satisfactory spacing of the three windows of the superstructure over the shop openings and
Fig. 8. JEWELLER’S SHOP, HIGH ST., STAMFORD.

J. C. Traylen delt.
door. Evidently the designer appreciated to the full the need of the two solid piers either side of the entrance; these giving much strength and excellent balance to the composition.

The confectioner's shop from Faversham (Plate x) is quite a typical design, but the general character of the detail is scarcely so refined as other fronts of a like character which have been illustrated. Originally the bowed window was glazed in small panes of glass.

The measured drawing of Sims, Jeweller (Figure 8) is another Stamford shop, very similar to that already described. The details (Figure 9), however, are somewhat different, and the general effect is not so vigorous by reason of the larger amount of glass area.

Plate xi, a projecting front, though largely spoilt by the modern lead glazing of the front door, is still interesting by reason of the necessities which produce its form. One of the many brooks in the neighbourhood of London known as the Moselle often overflowed and flooded the adjacent houses. The floors of the latter were accordingly kept high, and many steps leading to the front door had to be provided for. The brook was afterwards culverted, and here shops are now built over it.

The series of old fronts shown in Figure 10 all project upon small wooden corbel brackets. They were probably erected towards the end of the eighteenth or the beginning of the nineteenth cen-
tury. The illustration demonstrates the value of the picturesque even in shop-front designing. For here, how charming is the pleasing break in the planes of surface occasioned by the curved projecting windows. The wrought-iron balconies are also not without their value in the artistic interest of the whole.

Figure 12. DESIGN FOR A SHOP BY J. CARTER, ARCHITECT.

Plate xii is another shop-front which aptly indicates the value of the glazing bar as a decorative accessory to the front, and a pretty emphasis of the goods of certain trades. Apart from the simple refinement of the woodwork details, it is hard to miss noticing how successfully the glazing bars frame the goods contained in the window. We must not miss, either, the excellent shuttered and bead-flush door and the iron stall-board balusters.

Figure 11 differs only from the typical fronts of the latter part
Fig. 10. OLD SHOPS, WOBURN BUILDINGS, LONDON.

Fig. 11. OLD SHOP, THE BUTTER MARKET, CANTERBURY.
of the eighteenth century insomuch as the architect, in preference to the more common bowed form, has reverted to the alignment of an ordinary bay window.

We have pleasure in including a reproduction of a shop-front by J. Carter, the probable date of which is about 1774 (Figure 12). Here the architect, with a pleasing desire for originality, has reversed the usual procedure and bowed his shop-window inwards instead of outwards. Obviously, however, this could have been only done for some little æsthetic effect, for the small recessed space thus obtained is not used for standing in, but is shut off by means of iron railings.

Figure 13 is a reproduction of a design for a shop-front taken from a series of designs of shop-fronts and door-cases published by J. Taylor at the Architectural Library, No. 56, Holborn, London, probably about the end of the eighteenth century. The design is an admirable example of the more orthodox adoption of classic forms in relation to the designing of shop-fronts. The surface planes of the front are pleasingly broken, while the detail, if conventional, is generally of a good character.

With the accession to the throne of Queen Victoria, the thoughtful and excellent work of Nash and the other architects of the Stucco period was responsible for some good shop-front designs, a typical example being illustrated by Plate xiii. It is very noticeable how much they differ from the eighteenth century work; more especially in regard to the adoption of a certain orthodoxy in the use of Classic Orders and their accompanying details. This example known as "Laws," Oxford Street, was especially designed for that firm in 1849, and it is interesting to note that the architect was not confined by the client to the "all glass" treatment, which even at this time was becoming the recognized treatment for a shop-front. Because of this, and because of the fact that the building was designed as one complete whole, there is a considerable success in the heavy Classic columns with the simple bowed windows in between.

The Great Exhibition of 1851 must, for purposes of this book, be the dividing line between the old shop-front and the new. For this great gathering was revolutionary in its effect upon social, political, and industrial life. A useful prominence was given to the encouragement of the minor arts and crafts; those arts and crafts such as glass-making, which were largely responsible for the great change which afterwards became noticeable in shop-front designing.
Figure 13. Design for a Shop—Late Eighteenth Century.
Plate 3.

NO. 15, CORNHILL, LONDON.
CHAPTER II.

THE ARCHITECTURE OF THE MODERN SHOP-FRONT.

HAVING briefly reviewed the shop-front of a past age, it is interesting and indeed vastly important to turn to a consideration of the complex problem that is presented, when attempting to deal with the shop-front of to-day.

It should be, perhaps, unnecessary to emphasize that a sufficient recognition of the great importance of this problem is the first essential to a systematic review. Necessarily, there are to-day, practical and commercial limitations of the creative faculties which were not imposed upon the designers of the various charming old eighteenth century fronts. The whole character of the distributive industries of the country has changed. Whereas the shop-keeper of the previous generation was contented to rely upon a solidly built reputation as a sufficient advertisement, the shop-keeper of to-day, buffeted by an abnormally developed competition, has so to adapt himself to the needs of his times as to seek a more pronounced advertisement than a good honest reputation.

He sees in his shop-front a happy medium for a properly expressed and unique advertisement. The rapid developments of a revived building trade are at hand to help him. The glass industry has made tremendous progress. He is able to procure sheet and plate glass in large sizes. The manufacture of the rolled steel-joist has been revolutionized. He is relieved of the necessity of a limited opening for his front. Therefore his shop-front becomes the most important part of his premises. It is the permanent and daily advertisement which is to stimulate and encourage the sale of
his goods and commodities. Hence it becomes, as the result of a purposeless exaggeration, the aggressively ugly and the unnecessarily prominent features of a disturbed and reasonless street architecture. Throughout all ages true architecture and style—not imitative—have been the result of a logical and proper use of the materials and conditions of work and labour which existed at the time. It is even so to-day. The influence of local materials and requirements mark all great and revolutionary changes in architectural diction and style. But now, at the beginning of a new century, English architects, somewhat behind their brethren in America and on the Continent, are reluctantly compelled to see the vast importance which steel construction must have upon the buildings and the architecture of those buildings, in the near future. Iron, concrete, glass—these are some of the materials to hand. Consequently, these and similar materials should be used for buildings, and even in a limited way for the recreation of the shop-front. That French architects in general and Viollet le Duc in particular realised this fact, is proved by a reference to the latter's "Lectures on Architecture."

The high value of land in London and other large cities demand that buildings shall be many storied. The result is the steel frame building which, as things go at present, is falsely covered with stone or brick; this having no constructional relationship with the case. Viollet le Duc, who evidently has half-timber work in his mind, endeavours to show the construction with bold honesty. The iron framework, even as in the old timber structures, is left uncovered, the filling between being in tiles or some other material suitable to the purpose. The upper portion of the building projects out over the lower portion and has, even as in the old Elizabethan timber houses, a depreciating effect upon the real lightness of the actual shop-front.

It is worthy of notice that American architects have made a considerable number of experiments in this connection, shop-front and superstructure being entirely carried out in steel and iron. How they contend with the dangerous difficulties presented by the need of efficiently protecting this metal-work from fire and weather, is not clearly shown. To them at least, the problem of a logical connection between shop-front and superstructure is sufficiently solved by a proper and natural use of similar materials for the whole of the building; for they know that new effects of this dis-
cription must necessarily be judged by different canons of taste and discrimination.

The Recessed Shop-Front.

From a consideration of the inherent possibilities of exposed iron construction in direct regard to shop-front designing, notice must be given to an expediency very much adopted at the present time. This is the setting back of the shop-front some two, three or more feet from the actual building frontage instead of making it flush or nearly flush with the plane line of the building overhead. This has many advantages, and the break in the plane has the useful effect of making less apparent the solecism of a heavy building seemingly resting upon a sheet of glass. Besides this, it creates a standing space where an intending customer can quietly admire whatever goods the window may offer for his inspection without being jostled by hurrying and inconsiderate people on the pavement. The idea offers many possibilities of development. The sides of the lobby or loggia can be occupied by show-cases, while in some examples an additional show-case is placed in the centre (Plate xiv). This has the good effect of dividing the crowd and making the inspection of goods easy and perfect by the creation of a circuit. The ceiling and floor of a recessed front give an opportunity of introducing some interesting detail, while the frame itself can be bowed or shaped or planned as desired. There is, however, one disadvantage. In premises absolutely dependent upon the light obtainable from the shop window, the recessing of that window, with a consequent darkening of the shop interior, becomes inadmissible. Considering this setting back from the point of view of its relation with the building over, an elevation is presented with solids slightly relieved, resting upon one huge void, and not, as is usual, resting on a framework of wood and glass. This it seems, because of its honesty, is an improvement, and if the frontage be not too great, it should be easy so to adjust things as to avoid any incongruity of treatment. The use of the sham arch is to be deprecated, for the only natural treatment of a shop-front opening is a square treatment or beam and post.

There is a sound ornamental principle to be deduced from the effect gained by the setting in of the shop-front. The planes of the building surfaces must be broken up with relation to the shop-
Fig. 14. NO. 65, ST. PAUL'S CHURCHYARD, LONDON.

W. Ernest Hazell, Architect.
front, i.e. if this relationship is to be cognate and architecturally recognizable. For instance, the use of bays projecting out over the shop-front below (Plate xv) helps this intention, while the slight curvature of the front itself, as long as it does not distort the lines of perspective, has a not unpleasing effect.
Plate xvi is a typical example and an excellent one to wit, of the modern recessed shop-front. A large amount of display space is allowed for, while the vestibule provides a suitable area wherein the customer is able to quietly and leisurely examine the goods which may be displayed in window and show case. The piers at either side supporting the square-headed entablature look sufficiently strong for their purpose, and although bulky, the shallow showcase, built around the lower portion, duly compensates for the room lost by their comparatively large size. Figures 14, 15, and 16, show the construction and general arrangement of this front.

In Plate xvii the shop-front is recessed some few feet, and has two cleverly introduced triangular bays. The height of effective display is very properly limited by a broad shelf. Above this it is noticeable that a recessed and glazed screen is successfully utilized for the purpose of giving light to the actual shop interior. Figure 17 is a reproduction of the working drawings for this design. Further recessed shop-fronts are illustrated by Plates xviii, xix, and xx.

In the shop-fronts just described, the recess in each case has been merely a recess, and little effort has been made to mitigate in any way the extent of the large void thus created at the bottom of the building. This device of setting back the shop-frame has only a negative success, and further effort must be made to realize fully the possibilities of the recess as a means to a more positive end. Further remarks can be better illustrated by an examination of the front illustrated in Plate xxi. This is one of a well known type of front with which most architects are familiar, and, what is more to the point from a shopkeeper’s point of view, one which the general public seem to note and comment upon. The example illustrated was especially selected because it presented features extraneous to the other shop-fronts belonging to the same firm. It will be noticed that the shop-frame is recessed some two-and-a-half to three feet, and two Ionic columns of good proportion and design stand forward and support the superstructure. This is surely admirable. The functional purpose of the columns is honest. The piers at either side are suitably strong, and the actual wood framework is subordinated to the first essential of any facade which has a shop-front below, and which would aim to have direct structural and therefore direct architectural relationship with that shop-front. It matters little that the columns, elevationally, appear to cut the front
Fig. 17. NO. 25 CHEAPSIDE, LONDON.

A. Paier, Architect.
into three portions. In reality they do not, and the intending customer, by extending himself or herself about a foot towards the front door, is at once inside the line of the columns and in complete view of the whole window.

Plate xxii is a similar type of front to the last, bold stone columns being used to carry the superstructure.

The shop-front belonging to The Jaeger Wool Co., Glasgow (Plate xxiii), is a recessed front similar in character to the last, and a worthy example of the many shop-fronts of good architectural character which this firm have caused to be erected in many of the principal towns of Great Britain and abroad. The curved vestibule, with its marble paving, is happily conceived and as happily carried out. It provides an abundance of window space for the display of the goods, and at the same time the semi-circular form is conducive to a pleasing and subtle architectural effect. The chief interest of the front, however, lies in the steel supporting columns. Nothing but admiration can be given for the excellent idea of enclosing these with small showcases of octagonal form. Concealed, yet revealed, the support of the building is suitably and usefully indicated. Note, too, how the small glazing bars lend themselves to a pretty symmetrical treatment of window dressing.

There are many interesting fronts but slightly recessed, the frame being set back some one or two feet from the building line and being simply splayed or bowed in the style of the Georgian fronts noticed in the first chapter. The best of these are illustrated by Plates xxiv, xxv and xxvi.

The excellent front which Mr. Edward Howell has had erected for his bookselling business in Liverpool (Plate xxvii) is well worthy of the various encomiums which have been lavished upon it. Without possessing any merit for distinctive detail the design is eminently indicative of the method that should be adopted when it is desirous to obtain in a shop of narrow frontage the maximum amount of display space. In the front under notice the original frontage was only fifteen feet. The new shop-front allowed for an exhibition space of over thirty feet. A glance at the illustration reveals the easy ingenuity which led to this result.
THE TYPE SHOP-FRONT.

Plate xxviii, one of the J. P. Restaurants in London, offers an opportunity for a short digression upon the tendency which large firms are developing for the creation of what, for want of a better term, can be called a type-front. The names of such firms as Messrs. Slaters Limited, Messrs. Lyons and Co., The Maypole Dairy Co., The Sorosis Boot Co., and a host of others instantly recur to the mind in this connection. Such firms as these evolve their special type of shop-front, and this design, altered as required, is made to fit all sorts of positions. Protest must be entered against this cutting and trimming of a design created to the needs of one certain position, but made to fit others for which it was not designed. Possibly there is a desire upon the part of these large monopolies to still further impress a long suffering public with a gorgeous architectural uniformity and sameness; a uniformity, however, usually much too blatantly vulgar, to be ever beauteously sober and tasteful. There is no reason, however (were all the fronts designed in harmony), why they should not be indelibly stamped with certain characteristics of design which would be as much a label for the firm as the most uniform of ugly fronts. The shop-fronts of The Jaeger Wool Co., designed by Mr. Charles E. Dawson, are especially to be commended in this connection.

Plate xxviii, the front already spoken of, is something better than the usual type-front. The two semi-circular bays are pleasant and suggestive of the value of a picturesque perspective, while the glazed frieze over has an artistic as well as a utilitarian purpose.

The International Stores, from Enfield (Plate xxix), is another and very good design for a type-front.

THE PROJECTING SHOP-FRONT.

The next front to be noticed for simplicity’s sake has been given the title of the projecting shop-front. The strict enforcement of a uniform code of byelaws has necessarily limited the adoption of this type of front. This seems a pity as it offers for easy realization an architectural and constructional continuity of effect not obtainable by other devices. Under the easy byelaws of earlier times the projecting shop-front was a common and picturesque type, but, now-a-days, with the well ordered inconsiderateness of different
ENGLISH SHOP-FRONTs OLD AND NEW.

authorities the projecting front can scarcely be adopted without setting the whole of the building back in order to provide sufficient ground for the projection of the frames. This would often be prohibitively expensive and in some ways a scarcely justified procedure. When, however, the opportunity naturally occurs, there is a good deal to be said in favour of the objective architectural value to be gained by the adoption of the type. In common with the recessed front its reversion has a dominant negative advantage. There is no assumption of any supporting effect in regard to the building over, the fact of boldly setting the front forward completely dispelling any illusion which might exist in this direction. At the same time it is possible so to treat the front as to give it the inestimable advantage of a partial top-light upon the goods.

Notable for its simple and refined elegance is the front illustrated by Plate xxx, although no top light is arranged for. It is evident that Mr. Cave, the architect, found some inspiration for this design in the old shop-front in the Haymarket. He is to be congratulated upon a clever adaptation of an old method to a modern need.

THE CORNER SHOP.

The corner shop is perhaps the most difficult of all types to deal with in a satisfactory architectural manner, and, because of this it has not been easy to find many suitable illustrations. Generally the corner building is splayed and the shop-front naturally follows the same alignment, two steel columns being placed behind the shop-frame at either corner of the splay. The result from an architectural point of view is more aggravatingly unreal than ever, the corner of the superstructure appearing to have absolutely no support. Consequently in the corner shop more than in the single isolated front, it becomes imperative for the designer to give greater consideration to the treatment of the main angle. The entrance is usually placed at the corner, but it must be pointed out that there is no absolute necessity to do this: in fact, a stronger corner can be made when the entrance is placed in one of the sides.

In a building recently erected at Manchester, two sturdy stone columns, which looked, and actually were, strong enough to support the building over, were placed at each angle of an ordinary splayed corner. The shop-frame was set back some few feet behind and the
general effect was entirely good; for the columns, while giving some idea of support to the general elevation, were at the same time quite unobjectionable in so far as any interference with the display of goods were concerned.

Plate xxxi is undoubtedly one of the best planned shop-fronts included in this review, and at the same time it does all that is necessary to indicate how effective and interesting a corner shop can be made. The needs of the business are provided for in a remarkably clever fashion. For instance, the small window upon the left side of the picture is made to open, this portion being used for the purposes of a second-hand bookstall. The stall-board is kept high and the space underneath is used for the display sheets of the daily newspapers. The main windows on the right are recessed 1ft. 6ins., a convenient standing place being thus created. The steel supporting columns at each corner of the vestibule have small show-cases formed around them, the three openings to the entrance being 4ft. 6ins. wide. The bookstall proper, a window 6ft. wide, made to open, is upon the left side of the vestibule. The door with side lights is 6ft. over all.

The Double-Storied Shop-Front.

In a review necessarily concise, it is to be regretted that more space cannot be devoted to a consideration of the double-storied shop-front, an essentially modern evolution representative of the commercial progressiveness of the times. This sort of shop-front is becoming more largely adopted every day, more especially by carriage dealers, furniture warehousemen, and sellers of a similar class of goods. The idea seems a natural adoption of the entresol arch, the latter being an expedient adopted some years ago for the purpose of giving some idea of support for the upper parts of a shop-fronted building. For some unknown reason this device fell into disfavour. More recently it has been revived, the acute shop-keeper seeing that by such means he will be enabled to enlarge an already large exhibition space by having a second or mezzanine floor to his shop-front. The arch springing from the first floor level, whether elliptical or semi-circular, has necessarily a large glass tympanum which gives abundant light to the mezzanine floor, and
at the same time, the window thus formed can be used for the display of suitable goods. These can be seen from the further side of the street and can, obviously enough, be made sufficiently attractive to catch the eye of the casual pedestrian, or to interest the passing omnibus traveller. The result from an architectural point of view, can, in the case of the single or isolated front, scarcely be given unqualified praise. The need of still providing a large and wide ground floor window space does not allow for adequate abutments at either side, the concealed girder being more often than not brought into use as a tie. On the other hand if the entresol arch be honestly constructional it must perforce make unfair use of such abutments as may be afforded by the buildings on either side. Assuming the usual street architecture these side buildings are more often than not shops, and consequently useless as abutments for a possible arch with its powerful thrusts. Hence the adoption of the rolled steel joist and a loss of architectural truth by the useless creation of a sham arch. Indeed the use of the entresol arch when applied to the single isolated front does not seem to be architecturally helpful. This treatment however, when used in connection with shops in series becomes more satisfactory. The continuance of the arches in successful constructional repetition is strengthening in effect, both as to the shop-fronts themselves, and also upon the architectural whole of the building.

Of the double-storied front with entresol arch an excellent example is to be found in the new premises built for Messrs. Debenham and Freebody, in London (Plate xxxii). Sincere congratulations must be offered the architects upon the production of this admirable modern building, a building whose interests are, perhaps, for the reasons of this book, chiefly centred in the shop-fronts. The general adoption of Carrara ware for the most recently erected business premises was followed in this case with much resulting crispness of effect, the defining lines being cleverly and suitably marked with the characteristic ornamentation which is easy to the material. It will be noticed that the end and entrance shop has a central door, the windows being splayed back upon either side with a certain amount of effect. It could also have been completely recessed or otherwise planned to taste. Many other pleasing diversities of form are encouraged by the latent possibilities of the treatment, and much dressy and interesting detail might be added. For the designer, having first established direct structural relation-
ship with the superstructure, is thus released to a pleasant freedom in regard to the treatment of the actual shop-frame itself.

From a consideration of the *entresol* arch as a governing factor in shop-front designing attention must be given to another type of double-storied front; the front where the upper storey is not limited by a real or apparent arch but is treated more or less purely as a square-headed opening. Before doing this, however, notice must be taken of the small dairy shop in New Cavendish Street, London (Plate xxxiii). This front is distinctive because it is a case, and a good case, where the superstructure is really structurally dependent upon the real arch which spans the shop-front opening. It is a good opportunity of doing the right thing which has unerringly been taken advantage of by the architect. Consequently there is much pleasure to be gained in giving the design, in spite of a little too obvious originality in the details, almost unstinted praise. The design has a self-contained success which is all its own. The hood over the arch gives depth and strength while the bowed oriel come quite happily over the abundance of solids which mass and give character to the work upon either side of the shop opening.

Plate xxxiv is an excellent and scholarly design of the square-headed double-storied shop-front. It satisfactorily demonstrates that, by the enlarging of the glass voids of the lower portion, a chance is offered for making better proportional adjustments between the lower and upper portions of the concerned building. Noticeable in regard to this front are the granite pilasters between the windows, which are carried up as vertical balancing lines through the whole height of the building. A small indication is given in the illustration of the clever manner in which the space between these pilasters is filled with large bays. Thus there are no heavy superimposed solids, and both the building and the shop are one architectural whole.

A commentary upon the double-storied shop-front must include reference to such a front as that illustrated by Plate xxxv. This front, it will be observed, is as regards actual display space limited to some seven or eight feet from the ground, the space above this being utilised either as mezzanine story, or else it becomes a low ceiled balcony or gallery which extends completely around the inside of the shop. Access to this can, and is often, gained by means of a small spiral staircase from the back of the shop. The gallery
can be usefully employed as a store or even as an additional show place for the shop interior. In this front, as in that at Hanover Square, London, there is much clever decoration. Especially admirable is the graceful delicacy of the characteristic French detail.

Reverting to Plate xxii, the mezzanine floor idea has also been adopted here for the purpose of gaining additional artistic and useful elevation of all the parts.

It is worthy of mention that the requirements of the London Building Act insist that "no part of the woodwork of any shop-front shall be fixed higher than twenty-five feet above the level of the pavement of the public footpath in front of the shop." This prohibition would, of course, govern very largely the designing of double-storied shop-fronts in the Metropolis. Special cases, however, requiring greater height than allowed by this clause would be always given further consideration by the authorities.

**The Shop-Front in Series.**

Having given a short review of some of the more modern shop-front designs, a few remarks might still profitably be added anent the larger issues of the problem, more especially with respect to a satisfactory solution of how to design a series of shop-fronts as parts of one large architectural whole. Mention has already been made of the possibilities of the _entresol_ arch in this direction, and from that idea further attention should be given to the method adopted in regard to the lower portions of the new Ritz Hotel, Piccadilly, London. Here the whole of the main building has been brought out over the pavement, and is boldly carried upon a granite arcading sufficiently bulky to be amply satisfying as to its powers of support, the actual shop-frame being set back behind. The architectural value of this idea, so largely adopted in Paris and other large continental cities, is very obvious. A real support for the building is obtained without the aid of concealed girder work. No flagrant deviation from the laws of traditional proportions are made. The building, may it be said, is treated rationally, and there is no need to give consideration to the possibilities of dealing with the modern problem by the creating of a new and untried code of proportioning. The shop-frame itself is set back and can be treated in various ways. A sun-blind is not necessary while a covered walking space is provided, where, sheltered from weather,
NO. 65, S. PAUL'S CHURCHYARD, LONDON.
Plate 17.

No. 25, CHEAPSIDE, LONDON.

OUR POSITION IN THE CIGAR WORLD IS UNIQUE.

25 CIGAR MARTIN Bros. SHIPPERS

[Image of a cigar store with various signs and displays]
Plate 18.

DYERS.

PMSLEV.

IND 2.11%ng

NO. 136, CHEAPSIDE, LONDON.
PLATE 20.
NO. 209, REGENCY STREET, LONDON.
No. 5, Queen Victoria Street, London.
NO. 10, DOVER STREET, LONDON.
NO. 103, HIGH ROAD, KILBURN, LONDON.
leisured and comfortable inspection of the goods can take place. It is possible to suggest a further improvement to this and, perhaps, a necessary improvement. Where the byelaws will not allow of the bringing forward of the superstructure, set back the whole of the ground floor shops, letting the colonnade be now at the front of the building line, and not, as at the Ritz Hotel, at the outside of the street pavement. This creates a second or covered shopper's pavement alongside the street or main pavement. Such a double pavement as is suggested would be an inestimable boon in a crowded thoroughfare, there being evolved for the pleasure of the shopper all the comforts and distinct advantages of the single recessed shopfront. In fact this continuous colonnade is the natural development of the recessed front carried, when considered in series, to its logical and obvious conclusion. The loss of light occasioned by the shadowing of piers and arches must be considered in a possible adoption of this idea.

A reference to an illustration of Regent Street before 1848 shows this noble thoroughfare with a colonnade extending the whole of its length. This was done away with because of the great loss of light occasioned by the columns. In suggesting the revival of this old idea for extended thoroughfares of modern shops, it might be pointed out that the difficulty of adequate lighting might be contended with by placing some powerful pavement lights in the flat roof of the colonnade; for the idea apart from the difficulties of light, possesses the same architectural and utilitarian advantages common to the other idea adopted at the Ritz Hotel. It might be desirable to take this gallery or colonnade up two stories, and of adopting the idea contained in the success of the old Chester Rows. An attempt was made in Shaftesbury Avenue, London, to give definite form to such a suggestion. Two stories of shop-fronts with stairs leading from the streets at various intervals were erected upon a triangular site. For some reason or other, the scheme, however, was not a financial success.

It has not been thought necessary to illustrate arcades in this volume as the difficulty of their proper architectural treatment is not great.
CHAPTER III.

THE PRACTICAL REQUIREMENTS OF THE MODERN SHOP-FRONT.

THERE is abundant need for designers to recognise the very necessary adaptation of the shop-front to the needs of the trade or business whose distributive agency it is. The shop-front which might be aptly suitable for a grocer or ironmonger is flagrantly out of place when intended to isolate the distinction of a certain piece of millinery. Indeed, it is largely owing to architects' neglect of this point that the present day shop-front is so terrible, terrible in its sameness, and terrible in the continued desire upon the part of the shop-keeper for the all glass front. While recognising this desideratum when it is applied to a draper's or similar class of shop, the need of an all glass treatment entirely disappears when dealing with the provision of suitable window spaces for a jeweller, or possibly a bookseller. Consequently some remarks might profitably be written as to the type of front which would be most suitable for the needs of various businesses. Noticeable is the practice of the French colour merchant. Invariably the shops devoted to this business are elevationally planned in radial segments, each segment exhibiting a certain colour of the spectroscope. Confessedly the result is somewhat startling, and aesthetically not especially pleasing. At the same time a more clever adaptation of the same idea might easily be made effective and artistic. The introduction of colour into a shop-front design is at all times worthy of recommendation.

Considering how to define, in the design of the front, the nature of the business, difficulties present themselves. Architecturally speaking it would be unwise to ask that such definition should be anything very concrete in character. It should merely be a natural result produced out of an honest attempt to give the front nothing more than sufficient thought in regard to suitability of material,
form of plan and a general convenience of working. At the same
time, while recognising these more or less abstract principles, they
should become no insuperable barrier to the addition of some form
of decoration, superfluous in itself, but valuable as forming an
artistic accessory, which, like the stone signs of the earlier times,
might be an elementary indication of the business carried on.

Two excellent designs illustrate the foregoing remarks. The first
(Plate xxxvi), a game and fishdealer's shop, designed by Messrs.
Penty and Penty of York, has both those abstract and concrete
qualities which are so desirable. A better design for a fish—
monger's shop could scarcely be conceived. The whole design is
full of purpose and expression, and no hesitancy need be marked in
ascribing to it many superlative merits. The admirable modelled
and panelled plaster frieze is artistic and interesting. The windows
simply contrived for opening and closing and low in their height
are surely the best for the limited display of fish and game. Again,
notice must be given to, and praise tendered for, the artistic sim—
plicity of the wrought iron-work which comes in front of the stall—
board; also for the cleverly detailed carving. In fact, all that is
required in this front to tell of name and business is characterized
by the front itself in a quiet and telling fashion that is wholly
delightful.

The other front (Plate xxxvii), is a modern butcher's shop at
Bournemouth carried out in faience by Messrs. Carter and Co., of
Poole.

MATERIALS.

In considering the selection of materials for the construction of
the shop-front it would be as well to bear strongly in mind what
has been written in the foregoing paragraphs. The use and choice
of material is largely governed by the same conditions which affect
the building of the design according to the varying needs of different
trades. There is a tendency, more especially in regard to the
opprobrious public house, to design and carry out fronts in
faience, or some other vitreous or glazed ware. Special attention
is drawn to the Kardomah front, Liverpool, Plate xxxviii. This is
carried out in white faience, the numbers, lettering, and small
chequered work being in mosaic. The small name plate at the sill
level is in copper, the oak doors being also partly covered with the
same metal. Though it is exceedingly doubtful if the unbiassed
critic would pronounce this front a complete architectural success, yet, at the same time it is admirable for the many good suggestions it offers. Apart from a pleasing solidity in regard to all its parts, it is valuable as an example of the restrained use of colour. The gold mosaic work of the lettering is not out of harmony with the burnished copper on the doors, and is a quiet and subtle relief to the dull monotony of tone given by the white faience. From the shopkeeper's point of view, attractiveness is the quality he mostly demands in the design of his shop-front. He understands the glint of a little gold or the bright attractiveness of a copper covered door. Keeping this in mind it is natural to suggest that the introduction of a little colour, bridled by a complete understanding of its proper limitations, is for the aesthetic betterment of the shop-front. Plate xxi is another example where soberly coloured mosaic is utilised for the purpose of giving life and character to the design. The figures in the mosaic spandrels are cleverly interpreted in the material and have a charming effect.

Contemporary with the introduction of faience for shop-fronts is the use of metal. Of course the metal-framed front has been, and is still, common enough; but until now only as an outstanding protest against its own existence.

Plate xxxix is a simple and effective metal front. The plain flat brass bars seem quite suitable for their purpose and are at least much superior to those wooden elongated columns of some inch diameter whose abnormal proportions in the average shop are so markedly absurd.

The Crittal Manufacturing Co.'s front illustrated in Plate xl is unique in regard to the arrangements of the metal work which constitutes its frame, and which is a patent of the manufacturers. Its interests however, are not entirely confined to the metal framing, for the projecting bay over the front supported by some excellent consol brackets, is distinctly good; while the plain surface provided for the lettering, enlarges the scale and interest of what is really a very small shop.

Most common of all materials, because most easily obtained and most easily adapted to the requirements of design, is the use of wood in connection with shop-fronts, teak, oak and mahogany especially being largely used. It will probably be some considerable time before the simple usefulness of these materials will be neglected as a means to a comparatively inexpensive and effective
result. Naturally enough, it is easy to include a large number of excellent wooden and glass shop-fronts. These, while possessing no distinctive architectural value in regard to plan or form, are architecturally attractive, and their merit is made sufficiently prominent by the admirable character of their details alone. Among such fronts as these that designed by Mr. Paterson in Bond Street, London, and illustrated by Plate xli, is especially meritorious. This shop-front is of more than ordinary interest by reason of the fact that the architect has evidently found worthy inspiration for his design in an old shop-front at Lewes. Messrs. Sandorides are to be congratulated upon the possession of a front so thoroughly and artistically suitable.

The shop-front belonging to Messrs. Singers, at Paris (Plate xlii), has a peculiar interest of its own, insomuch as the detail is so characteristically French. Compare this front with Plate xliii, an English hairdresser's shop from London. Both fronts are carried out in wood, both are interesting and inspiring, yet it is hard to say which should be admired most; the straight and honest rigidity of treatment which marks the English front or the decorative freshness of the Louis detail in the Paris establishment.

Stewart and Co. (Plate xliv), and Spiking's (Plate xlv), are two typical examples of the very ordinary better class shop-front. Neither are markedly interesting or distinctive, but both have a quiet and sober effectiveness of their own which redeems them from the absolutely commonplace.

**Glazing.**

Plates xlvi and xlvii are both fronts with wooden frames, and indifferent detail, but both possessing those extraneous interests which are lent to a front by the introduction of a large quantity of curved glass. Ample inspiration has been found for these excesses of curvature, in the type of fronts owned by Messrs. Slater and Co., one of which is illustrated by Plate xxi.

Plate xlviii is a recessed front which has much merit, its chief interest, however, being contained by the uncommon arrangement of the glazing in the main window. This is bowed both horizontally and vertically and is believed to be quite unique in this respect.

Plates xxxix, xlv and xxvi show charming variations of leaded
lights which add a graceful interest to what might otherwise be comparatively uninteresting designs. Indeed the height above seven or eight feet can generally be used for some such decorative accessory, as a leaded frieze. Another practical suggestion is shown by Plate xxxii. For here Luxfer lights have been introduced, adding immeasurably and at the same time not inartistically to the lighting of the shop interior.

The use of the wooden glazing bar plays an important part in making artistically interesting many of the fronts illustrated, notably Plates xlix, l, xxv and xxix. No better example of its effective use, however, can be found than the charming design by Mr. George Walton, for The Kodak Co., in Brussels (Plate li). Especially noticeable is the clever way in which the architect has, by means of the glazing bar, given a charming bowed effect to the main window while at the same time using only flat glass. Quite excellent, too, is the introduction of some simple lead glazing in the main frieze above the transome. This design is really superlatively good.

**LETTERING.**

In regard to lettering, the neglect accorded to the sign-painter's art is to be deplored. The lettering of most fronts in the streets of to-day is either intolerably ugly or artistically unintelligible. Surely a creditable and intelligent interest can be given to a shop-front by well-proportioned figure work of good design. Painted letters in deeply shadowed perspective should certainly be avoided, because, however cleverly they may be done, they are not quite honest enough to be strictly architectural. Precisely the same effect can be obtained by planting raised letters of a suitable colour and material directly on to the painted fascia board (Plates xl, li, xxvi, l, and xvi).

There are a large number of specially made letters available for use in connection with shop fascia boards. These are made in wood, celluloid, white enamelled, copper, prismatic cut glass, and various other materials. Very popular with a certain class of shop-front is the use of the well-known Brilliant Letter. This is concave (V-shaped) in section, and made of stout sheet copper stamped from steel dies, and as a rule gilded. It is doubtful though if anything can be more simple and effective than the plain
painted letter—preferably white on a green ground—as shown in Plate xxxi. In regard to the fascia board, the tilting of this towards the street is surely an artistic mistake; for it has a tendency to throw the building illusively out of perspective, and to distort the lines of proportion. Perhaps it would not be too much to suggest doing away with it in its present position, for more often than not its use as a name-board is valueless. Often it is too high to be read, or else it is partly or wholly hidden by the sun-blind. The name of the shopkeeper might be more effectively disposed along the transome, which has already been indicated should limit the height of the display area. If this space be occupied by the sun-blind, the name might be placed in a prominent position over the door. An illustration of this is to be found in Plate xvi, while the name cleverly used along the limiting transome is illustrated in Plate xxvii.

In such a brief essay as this, no abstract aesthetic complaint need be entered against the prevalent tendency to conceal the supporting girder by a wooden fascia. Note might be taken of the method the late Mr. Waterhouse adopted in a shop in Glasgow. The girder was left entirely exposed, and the name of the shopkeeper, in bold metal letters, was bolted to the girder, and the whole carefully coppered. The result was a complete success, and the idea is worthy of more frequent use. Where it is absolutely necessary for the name to be in the usual position, it is not essential that the fascia should be in wood. Many mosaic fascias are now carried out as in Plates xlvi, xxviii, xxxviii, and xxi. These are generally made complete in one slab on a thick cement backing, reinforced with expanded metal. Fascias in incised glass, marble, metal, and a large number of other materials are made in wood frames all complete. These are easy for fixing to a plain wood fascia. Such fascias as these are shown in Plates xliii and xlvi. Stall-board plates of a similar nature are also largely used. A modelled plaster fascia gives great scope for some excellent work, a particularly good example being illustrated by Plate xxxvi.

It is the custom to place the name of the shop-owner on the sill or stall-plate, which is sometimes above the stall-board, but which, more often than not, takes the place of the stall-board. Figure 19 shows a more effective alternative to this. A wooden frame containing the name of the shopkeeper is placed behind the window and sloping away from it. Goods are thus not likely to be placed
too close to the window, and if necessary the sign can be made transparent and a light placed behind it at night.

**Lighting.**

A consideration of the lighting of the shop-front is important enough to call for a few remarks in connection therewith. The general principles should be towards the realization of a softly-toned light, sufficient in regard to quantity, but being evenly distributed rather than concentrated in garish and powerful arc or other big lamps. What light is required outside the shop should be so treated as to be in keeping with the governing characteristics of the design, yet it need not be a large amount of light. All that seems really necessary is that the name of the shop-keeper shall at least be sufficiently apparent. This might be accomplished either by the use of illuminated hanging signs as shown in Plates xx and xxxi, or by an arrangement of reflecting electric lamps fixed at the base of the fascia board (Plate xxxv). Better than the latter however, would be the use of some sort of transparent fascia board which at night could be illuminated from behind. It is well to know that the London County Council require in regard to external lamps for shop windows “that the underside portion must not be less than 8ft. from the pavement, the extreme projection over the public way not exceeding 3ft. when the width of the pavement permits, and not less than 2ft. from the carriage-way. The external dimensions of such lamps must not exceed 2ft. 3in. in any direction.”

In regard to the lighting of the interior of the window itself, a collaboration with a good electrical engineer is undoubtedly the best method to be adopted in regard to the disposition of the various points. For it must be remembered that the needs of the various trades largely govern the amount and disposition of the light in a shop window.

Plate lli has a unique arrangement in regard to the lighting of the shop window. Quaint lamps of wonderful design are hung over the window case and in the recess formed above the main transome. This throws a protected and admirably shaded light directly on to the goods. The result is as successful as it deserves to be and the idea is worthy of frequent imitation. A working drawing of this design is shown by Figure 18.
Fig. 18. NO. 40, WEST STRAND, LONDON.

G. Walton, Architect.
Construction.

Figure 19 shows a plan, elevation and section of a typical shop-front. It must be added that this shop-front is included not for any particular architectural merit it may possess, but simply because it is helpful in making quite clear the ordinary difficulties of construction common to all kinds of shop-fronts.

It would be as well to remember the restrictions placed upon the designer by the various local authorities, both in London and in the provinces. Thus in regard to the projection of cornices, etc., the London Building Act requires: “In a street or way of a width not greater than thirty feet, any shop-front may project beyond the external wall of the building to which it belongs to any extent not exceeding five inches, and any cornice of any such shop-front may project to any extent not exceeding thirteen inches; and in any street or way of a width greater than thirty feet, any shop-front may project to any extent not exceeding ten inches, and any cornice of any such shop-front may project to any extent not exceeding eighteen inches beyond the external wall of the building to which it belongs, over the ground of the owner of the building, provided that this provision shall not authorise in any such street the projection of any part of any such shop-front other than the cornice on or over the public way or any land to be given up to the public way.”

It will be noted that this portion of the act deals only with projections in so far as they encroach upon or over the public footpath or that portion of the owners’ land which might be intended to be given over to the public foot-path. In regard to the projection of shop-fronts upon the owners’ land alone special clauses with regard to the making of such fronts free from the dangers of fire are very properly enforced and covered by the following clauses: “Where any part of a building which is used or adapted to be used as a shop projects for a distance of seven feet or more beyond the main front of any building of which it forms part and in which any persons are employed or sleep the projecting portion of such shop shall be provided by the owner with a roof constructed of fire-resisting materials not less than five inches thick.

“IT shall be lawful to construct or place in or upon the roof of the portion of any shop so projecting beyond the main front of the building as aforesaid lantern-lights or ventilating-cowls. Provided that no such lantern-light or ventilating-cowl shall be constructed
or placed so that any part thereof will be at a less distance than six feet from the main front of the building from which the shop projects or within such distance as may be reasonable in the circumstances of the case from any other external or party wall. Provided also that the sides of such lantern-light or ventilating-cowl (except the side facing away from the main building) shall be carried up in fire-resisting materials for two feet above the roof in or upon which it is constructed or placed. Provided further that no part of any such lantern-light or ventilating-cowl shall project above the roof in or upon which the same is constructed or placed to a greater extent than five feet."

There are some further enactments with reference to projecting fronts, requiring that suitable access shall be gained to the roofs of same and also ensuring that proper guards or parapets shall be provided in the case of flat-roofed projections.

Returning to a consideration of the typical front, it must not be forgotten in designing it that the woodwork shall not be fixed nearer than four inches to the centre of the party-wall where the adjoining premises are separated by a party wall, or nearer than four inches

Fig. 20. SECTION OF A SHOP-FRONT.
to the face of the wall of the adjoining premises, where the adjoining premises have a separate wall, unless a fire proof pier four inches wide at the least is placed in between and as high as the whole front.

It will be noticed in Figure 19, that rolled steel-joists support the main walls of the building and are covered in with a regulation fascia-board fixed to rough bracketing. There is a tendency when the fascia-board is of considerable width and length for it to cast, and attention should be given to this point. Iron tubes inserted through and across the board at intervals of three feet will prevent this; or the board can be grooved and keyed with hard-wood strips. As an alternative to the rolled-steel joists Figure 20 shows a front supported by a reinforced concrete lintel with a stone cornice above. The lettering is fastened directly on to the front of this lintel, and much superfluous woodwork is thus done away with. The sun-blind, it will be noticed, is contained in a boxed transom cutting across the front at a height of seven or eight feet.

The lead-covered flat to the fascia-board when very wide, should fall towards the building and a proper secret gutter provided at the back with the necessary falls. It is undesirable in any case that the water should be allowed to drip over the front on to the pavement below. In fact the London Building Act, 1894, section 73, clause 7, especially provides against this contingency. The water is usually taken along to a cesspool at the end and a lead pipe from there conducts it to a rain-water pipe, taken down as a rule behind the side pilaster. Figure 19 shows the plate-glass of the main windows glazed directly into the shop frame. Sometimes, however, sashes are provided as well as the main framing, but more often than not the section of the corner is a very light hard-wood slip with shifting fillets.

Stall-Boards and Pavement Lights.

The combination of stall-board and pavement lights must necessarily be considered together, although the exigencies of design which modern commercial requirements demand have almost precluded the use of any stall-board. Figures 20, 21, 23 and 25 indicate several varieties of stall-board and pavement lights which may be adopted according to the circumstances of each case.

Figure 20 is an arrangement where a stall-board light is impossible. It shows ordinary pavement lights in connection with a
partition in the basement glazed in its upper portion with Luxfer Lucidux or similar lights. The light from the pavement prisms strikes the Lucidux and is refracted into the main cellar. The partition forms a convenient division between the basement proper and such w.c.'s, lavatories, etc., that might possibly be placed in the vault formed under the pavement. Where there is no excavation under the pavement, an arrangement like Figure 21 might conveniently be adopted. The stall-board light is filled with clear glass. It is desirable that the beam or girder supporting the floor, and the beam supporting the inner edge of the pavement should be shallow, in order to obstruct the light as little as possible. Figure 25 shows a case where a pavement light is not admissible, but where there is an opportunity of utilizing the space afforded by a high stall-board. The stall-board light is glazed with clear glass and a sub-canopy of Luxfer lights fitted below. The sub-canopy should be hinged so as to allow of the upper sides of same being cleaned.

Figure 23 shows a stall-board light, pavement light, and a sub-canopy used in connection with a recessed shop-front. Here the sub-canopy is also hinged, and this allows for the use of cellar flaps instead of a fixed pavement light. It should be pointed out that an easy opportunity is afforded by the stall-board light of providing for some ventilation to the basement.

With regard to the position of the
pavement light, insomuch as certain bye-laws and certain authorities in different towns object to the projection of the basement under the pavement, there are almost insuperable difficulties in the way of providing the necessary amount of light.

Under such circumstances a recessed shop-front would provide ample and abundant space for pavement lights, it being quite possible to deal with these in an artistic and suitable fashion, by so planning them as to form part of an architectural and geometrical pattern of tiles and lights to fill up completely the loggia or recess. Plates xvi and xx better illustrate this point.

In the clever and original little shop-front belonging to the Orient Pacific Mail Line (Figure 22), we notice another treatment of the pavement light which is at once interesting and suggestive. Here there was no opportunity, as in the case of the recessed shop-front, of utilizing the loggia for pavement lights. A small recess under the actual shop-frame was formed in glazed brick, and the floor of this small recess fitted with a pavement light. Thus the lights by being placed back in such a way are not walked upon and broken by the traffic of the pavements.
In regard to the height of the stall-board, this, naturally enough, is regulated by the nature of the design and the needs of the trade. There seems little use, however, for the usual custom of taking the glass practically down to the ground. A little thought must naturally show, that, beyond tailors, drapers and kindred businesses, there is no need to sacrifice the undoubted usefulness of the stall-board light for the sake of having the glass so low. Even in the case of a modern draper whose shop floor is usually about a foot above the ground, it would be advisable, if possible, to create some hollow instead of the usual stone or metal curb which divides the glass from the pavement (Figure 20). Thus a customer can peer through the glass quite close up to the front and at the same time there is not any inconvenient kicking of the feet against an awkwardly designed curb. It is notable that in many of the fronts illustrated the space under the stall-board is built in with glazed tiles or faience. This is good, for the introduction of subdued colouring must at all times be artistically advantageous.

**Sun Blinds and Roller Shutters.**

With the recessed front, provided the recess is deep enough, very little is needed in the way of a sun-blind,
but where, as in the case of the shop-front belonging to Messrs. Martin Bros. (Plate xvii), the recess is small and the height considerable, a mid-day sun easily strikes upon the lower portion of the shop window. This has unconsciously been partly provided for. A wide shelf limits the height of effective display and projecting out sufficiently helps to lessen the angle at which the rays of the sun strike the lower portion of the shop window. Of course the projection of this shelf might not be great enough to completely shade the goods in the window. In that case a small sun-blind of short width could conveniently be fixed within the box-like transome or shelf which would strike across the elevation of the window at a height of about seven to eight feet. Such an arrangement is illustrated by Figure 23. It is worth recording that Mr. George R. Sims, in a characteristic protest against the dull dreariness and lack of colour in important streets and shops, sees no reason why more attention should not be given to the sun-blind as a means of enlivening the drab monotony of tone. He suggests that the sun-blind might be striped in various bright but harmonious colours.

Figures 19, 20, 21, 23, and 25 show various positions in which the sun-blinds and roller-shutters of a front can conveniently be fixed. In regard to the latter, perhaps some little explanation is required. Sometimes they are made in iron, but more often they are manufactured from the best pine, in uniform convex laths, morticed and connected with steel or copper bands. Also they are connected by means of strong straining webs. The shutters are fixed to stout barrel cases containing steel spiral springs of a strong nature, these springs acting throughout the entire breadth of the shutter, and bearing on the central spindle of the shutter. If necessary the shutters can be worked by balance weights or other similar motions, but as a rule the strength of the spring, which is strained when the shutter is opened, is strong enough to make the closing of the shutter an easy matter, the tendency being for the spring to resume its normal position. It is desirable to provide the following space for the shutters to coil in:

For shutter 6 to 8 feet high . . 10 inches.

" " 10 to 11 " . . 12 "
" " 11 to 12 " . . 13 "
" " 13 to 14 " . . 14 "

The sash styles or pilasters at either side should allow for the in-
sertion of a \( \frac{3}{8} \) in. iron groove for the shutter to work in. This groove must be securely screwed to the styles as shown in Figure 19. Specially made iron brackets are attached to the girders as shown in Figures 19, 23, and 25, or built into the wall above as in Figure 21. Usually these are about seven feet apart, but this distance, of course, can be varied to the needs of special positions. The dotted lines indicated in Figure 19 represent movable metal strips placed in position below the supporting brackets of the shutters, and having grooved edges in which the free ends of the shutters run. It is necessary to remove these pieces when the shutters are not protecting the shop.

Steel revolving shutters are recommended for banks, jewellers, and similar classes of tradesmen; also shops where additional protection in case of fire is needed. Attention must be given to the provision of suitable guard beads, as shown in Figure 19, to prevent the chance of possible friction between the glass and the roller shutter. The boxing for the sun-blind should allow sufficient room for the roller or barrel. This is made in stout tin, properly jointed, and filled with a hardwood cylinder throughout its length. It bears upon a stout iron spindle, and the movement of the roller is by conical steel springs, which should be at least 5 ft. long. The diameter of the roller varies according to the frontage, thus:

<table>
<thead>
<tr>
<th>Frontage</th>
<th>Diameter of Roller</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 to 12 feet</td>
<td>3 inches.</td>
</tr>
<tr>
<td>12 to 1( \frac{1}{2} ) feet</td>
<td>3( \frac{1}{2} ) inches.</td>
</tr>
<tr>
<td>15 to 18 feet</td>
<td>4 inches.</td>
</tr>
<tr>
<td>18 to 22 feet</td>
<td>4( \frac{1}{2} ) inches.</td>
</tr>
</tbody>
</table>

The blind material is similar to sail-cloth, and made of flax, properly attached to the roller, and fixed to the front lath with a stout tongue or fillet secured by zinc nails. If the blind has to project more than 7 ft., it is necessary to mount the supporting irons on sliding plates. Generally, however, projecting arms with forged straps to attach to the lath, and forged eyes working on bolt pins in malleable cast iron shoe plates fixed to the side pilasters are all that are required.

**ENTRANCES.**

Not the least important part of the shop-front is the door and its fitments. In a shop where there is a constant stream of customers
it is extremely desirable that some attention should be given to the problem of protecting against the dangerous swinging of hollow hung or other such doors. In large drapers' and kindred establishments a commissionaire or boy is often kept to open and close the doors after a customer. This seems an ineffective and expensive method. Again, swing doors of the ordinary type are draughty and no protection from the entry of dust and noise from the street. There is always inconvenience with them, and their "push" and "pull" notices are generally sufficiently perplexing to ensure the collision of two people, one going out, and one going in. Figure 24 is a plan of a shop-front where the now familiar revolving door of the Van Kennel Co. is in use. The advantages of these doors are now well recognised and their adoption for large shop-fronts is advisable where expense is not a primary consideration. Of course in a small front the door need be no more than an ordinary glass-door hung to rebated frames. In larger fronts, however, it is sometimes found convenient to form a vestibule in the shop and thus have two pairs of doors. Such a lobby should, of course, be sufficiently roomy. Two doors, one in and one out, are sometimes placed with a pier between.

**Condensation.**

Much thought has been given to the difficulty which is always cropping up of how to prevent the condensation of the moisture...
upon the inside of the shop window, and it seems that a completely satisfactory solution is as far off as ever. Theoretically the problem is quite easy of solution: for it is only necessary to keep the temperature inside the window the same as that outside. To do this, however, the external air must be allowed to circulate freely inside the shop window and the difficulty of admitting it without also admitting a good deal of dust is a very pregnant one, and by no means solved by the crude expediency of a small ventilating grating at the top of the shop-front. The use of certain preparations containing glycerine as their basis have been used upon the inside of the glass. They are however, only partially successful. Another and more expensive method is the use of Bunsen burners fixed at the base of the window. These send a constant current of dry warm air up and near the surface of the glass, and prevent, unless the air inside the window is very humid, the objectional condensation and steaming of the windows. It is desirable that the air in the actual window shall be completely disconnected from that in the shop by glass screens at the back and top. A current of air from the outside might then be introduced below the window-sill as shown in Figure 25, while an extractor fixed at the top as shown would tend to the full circulation of a current of air of the same temperature as that outside. Very little difficulty would then be experienced in regard to windows steaming. It has been found that hot-water pipes below the stall-board have kept the air in the window-case sufficiently dry to prevent very largely the evils of condensation.
NO. 42, DALE STREET, LIVERPOOL
KARDOMAH

KARDOMAH - CAFE

CHURCH STREET, LIVERPOOL
NOS. 11 & 12, FINSBURY SQUARE, LONDON.
THE SINGER MANUFACTURING CO., PARIS.
Plate 44.

225, FINCHLEY ROAD, LONDON.
NO. 88, STRAND, LONDON.
NO 329, HIGH HOLBORN, LONDON.
Plate 48

21. RIDGWays' CAFE. 21

ST. ANNE'S STREET, MANCHESTER.
NO. 217, SAUCHIEHALL STREET, GLASGOW.
Plate 39.

ARGYLL STREET, GLASGOW.
MONTAGNE DE LA COUR, BRUSSELS.
A List of Standard Books on
ARCHITECTURE & ART,
BUILDING, ETC.
Published & sold by B. T. BATSFORD
94, HIGH HOLBORN, LONDON.

Large crown 8vo, cloth, gilt. 5s. net.

ESSENTIALS IN ARCHITECTURE. An Analysis of the
Principles and Qualities to be looked for in Buildings. By JOHN
BELCHER, A.R.A., Fellow and Past President of the Royal
Institute of British Architects. With about 80 illustrations
(mostly full-page) of Old and Modern Buildings.

Mr. R. NORMAN SHAW, R.A., writes:—"I have read the proofs of this work with
the greatest interest. I am quite sure it will arouse enthusiasm in hundreds of readers, but if it
attracted only a dozen, it would not have been written in vain. Mr. Belcher wishes his readers
to think of Architecture—architecturally: tells them how to do so, and no one is more competent
to teach them."

Imperial 8vo, cloth, gilt. 3ls. 6d. net.

GOTHIC ARCHITECTURE IN ENGLAND. An Analysis of
the Origin and Development of English Church Architecture,
from the Norman Conquest to the Dissolution of the
Monasteries. By FRANCIS BOND, M.A., Hon.A.R.I.B.A.
Containing 750 pages, with 1,254 Illustrations from photo-
graphs, measured drawings, and sketches, including 20 full-page
Collotypes and 469 of plans, sections, diagrams, and moldings.

"The fullest and most complete illustrated treatise on the subject which has yet appeared. . .
It is a book which every student of architecture, professional or amateur, ought to have."—The Builder.

"A truly monumental work . . . profusely illustrated. . . . As a mine of erudition,
detailed analysis and information, and of criticism, the book is worthy of all praise."—The Times.

"Perfectly orderly, and most complete and thorough, this great book leaves nothing to be
desired."—The Building News.

"This is, in every sense of the word, a great book . . . . It is a book that at once
steps to the front as authoritative, and it will be long before it is superseded."—The Athenaeum.

Large 8vo, cloth, gilt. 18s. net.

THE ARCHITECTURE OF GREECE AND ROME. A SKETCH
OF ITS HISTORIC DEVELOPMENT. By WILLIAM J. ANDERSON,
Author of "The Architecture of the Renaissance in Italy," and
enlarged. With 250 Illustrations from photographs and
drawings, including many full-page Plates, of which 24 are
finely printed in Collotype.

"As a comprehensive résumé of the history and characteristics of Greek and Roman
architecture this must certainly be considered to be the best one-volume work of its kind that
has yet appeared in our language."—The Builder.

"A vivid and scholarly picture of Classic Art."—The British Architect.

"It is such a work as many students of Architecture and the Classics have vainly yearned
or, and lost precious years in supplying its place."—The Architect.

D. 9. 07.
LATER RENAISSANCE ARCHITECTURE IN ENGLAND.


"One of the most remarkable and fascinating works in architectural illustration which has appeared in our time."— The Builder.

"A very sumptuous and beautiful publication."—The Architectural Review.

"Every admirer of the Renaissance in this country should possess a copy of this work."— The Building News.

2 vols., large folio, half morocco, gilt. £8 8s. net.

ARCHITECTURE OF THE RENAISSANCE IN ENGLAND.

Illustrated by a Series of Views and Details from Buildings erected between the years 1560 and 1635, with Historical and Critical Text. By J. Alfred Gotch, F.S.A., F.R.I.B.A. Containing 145 folio Plates (size 19 ins. x 14 ins.), 118 being reproduced from Photographs taken expressly for the work and 27 from measured drawings, with 180 further Illustrations of plans, details, &c., in the Text.

"The volumes are very beautiful in themselves, and a striking proof of the almost unknown wealth of domestic architecture of ancient date in which England stands alone." — The Times.

Large 8vo, cloth, gilt. £1 1os. net.

EARLY RENAISSANCE ARCHITECTURE IN ENGLAND.

An Historical and Descriptive Account of the Tudor, Elizabethan and Jacobean Periods, 1500—1625. By J. Alfred Gotch, F.S.A. With 87 Collotype and other Plates and 230 Illustrations in the Text, from Drawings by various accomplished Draughtsmen, and from photographs specially taken.

"A more delightful book for the architect it would be hard to find. It is quite a storehouse of references and illustrations, and should be quite indispensable to the architect's library."—The British Architect.

Large folio, cloth, gilt. £1 10s. net.

SOME ARCHITECTURAL WORKS OF INIGO JONES.

Illustrated by a Series of Measured Drawings of the Chief Buildings designed by him, together with Descriptive and Biographical Notes, and a complete List of his Authentic Works. By H. Inigo Triggs and Henry Tanner, A.A.R.I.B.A. Containing 40 Plates and numerous Illustrations in the Text.

"The plates are quite perfect as specimens of draughtsmanship, and possess a crispness and freedom of handling which differentiate them from ordinary measured drawings."—A.A. Notes.

"The authors have illustrated all that they have found good reason to regard as Jones's work, and their capitalily produced volume forms a worthy addition to the history of the Later Renaissance in England."—The Building News.

"Par excellence the student's manual of the history of architecture."—The Architect.
"A complete, trustworthy, and extremely attractive manual."—The Builder.
"Immeasurably superior to the original edition..."—The Architectural Review.

3 vols., large 8vo, cloth, gilt. £3 15s. net.

A HISTORY OF ARCHITECTURE, having special regard to the natural artistic results of Construction and those Methods of Design which are the result of abstract thinking and of the pure sense of form. By Russell Sturgis, M.A., Ph.D., Editor of "A Dictionary of Architecture and Building," Author of "European Architecture," "How to Judge Architecture," etc.

This important work will be completed in three volumes, the first of which is now published. Each volume will contain about 500 pages, with some 350 full-page and smaller illustrations, reproduced in colotype, halftone, and line, from special photographs and drawings; the whole produced in the best possible manner. Volumes 2 and 3 will appear during 1908.

Large 8vo, cloth, gilt. 12s. 6d. net.


"Mr. Anderson's book is of the greatest value, and enables the student, for the first time, to grasp the true significance of the movement."—The Builder's Journal.
"The book is evidence of earnest study."—The Architect.
"Should rank amongst the best architectural writings of the day."—The Edinburgh Review.

Large 8vo, cloth. 7s. 6d. net.

HOW TO JUDGE ARCHITECTURE. A Popular Guide to the Appreciation of Buildings. By Russell Sturgis, M.A. With 84 full-page Illustrations, reproduced in half-tone, from photographs of some of the chief buildings of the world.

"It contains for the layman an education in architecture."—The Lamp, New York.

Large 8vo, cloth. 7s. 6d. net.

THE APPRECIATION OF SCULPTURE. A Popular Handbook for Students and Amateurs. By Russell Sturgis, M.A. With 64 full-page Illustrations, reproduced in half-tone, from photographs of some of the most notable examples of the art.

"This interesting volume, with its admirably chosen illustrations, its skilful criticisms, and its cultured survey of the history of the art, cannot but prove helpful to any reader who wishes to form well-reasoned opinions on its subject."—The Scotsman.

ANCIENT DOMESTIC ARCHITECTURE IN GREAT BRITAIN. By F. T. DOLLMAN, Architect. Containing 161 beautiful Lithographic Plates, illustrating by means of careful measured drawings and sketches the principal examples of Medieval Domestic Architecture in England, with Analytical and Descriptive Text.

"Mr. Dollman's is the best illustrated and most generally useful book on the civil architecture of the Middle Ages. The buildings here drawn and described comprise not only dwelling-houses of varying degrees of importance—from the mansion of a lord-of-the-manor or merchant-prince to the cottage of a small tradesman in a country town—but also palaces, colleges, halls, schools, hospitals, and almshouses."—Arthur S. Flower, M.A., F.S.A., A.R.I.B.A.

DETAILS OF GOTHIC ARCHITECTURE, measured and drawn from Existing Examples of the XIIth, XIIIth, XIVth, and XVth Centuries, by J. K. COLLING, Architect. Containing 190 Lithographed Plates, chiefly of measured drawings.

"Mr. Colling's beautiful and accurate records of a great architectural epoch and of the indigenous art of this country have an inherent value and interest which can never entirely disappear. The illustrations offer invaluable assistance towards understanding and comparing the various phases of Gothic design, from the general lines of composition down to the most minute details of construction and of ornamentation."—Arthur S. Flower, Esq., M.A., F.S.A.

ROYAL 4to, cloth, gilt. £2 25. net. (Published at £2 25.)

MEDIÆVAL FOLIAGE AND COLOURED DECORATION IN ENGLAND. BY Jas. K. COLLING. A series of Examples taken from Buildings of the Twelfth to the Fifteenth Century. Containing 76 Lithographic Plates, representing 600 examples.

A book of exceptional and very nearly unique interest. Apart from Pugin's "Gothic Ornaments," it is the only collection that exists of well-drawn specimens of old English carved work, both in stone and wood, and ranging over the whole of the Middle Ages.

Large 4to, art canvas, gilt. £1 15s. net.


Folio, half morocco, gilt. £4 4s. net.

FORMAL GARDENS IN ENGLAND AND SCOTLAND. A Series of Views, Plans and Details of the finest Old Gardens still existing. With an Introduction and Descriptive Accounts. By H. INIGO TRIGGS, A.R.I.B.A. Containing 125 fine Plates, 72 from the Author's Drawings, and 53 from Photographs specially taken.

"That the book will make a charming addition to the libraries of artistic-minded people there can be no doubt whatever, and to the lover of gardens, from an architect's point of view particularly, we can hardly imagine a more welcome or elegant publication."—The Building News.
OLD ENGLISH COTTAGES AND FARM-HOUSES.
A Series of Volumes designed to illustrate the most typical and beautiful remains of minor Domestic Architecture in England. Each volume contains 100 Photographic Plates, artistically printed in Collotype, accompanied by Descriptive Notes and Sketches.

(1) KENT AND SUSSEX. Photographed by W. GALSWORTHY DAVIE and described by E. GUY DAWBER. The rural buildings of Kent and Sussex are typical of native homely English work, and amongst them may be found nearly every style of architecture.

"Every cottage illustrated has interest through its picturesqueness, and the variety of them is remarkable."—The Architect.
"All lovers of our domestic architecture should buy this book."—The Antiquary.

(2) SHROPSHIRE, HEREFORDSHIRE, AND ChESHIRE. Photographed by JAMES PARKINSON and described by E. A. OULD. This volume illustrates the half-timber buildings characteristic of these counties.

"No districts in Great Britain are more richly endowed with specimens of genuine half-timber work than these three beautifully wooded counties, so that Mr. Parkinson has had little difficulty in providing an attractive series of photographs in his well-produced and useful volume."—The Building News.

(3) THE COTSWOLD DISTRICT, comprising parts of Gloucestershire, Oxfordshire, Northants, and Worcestershire. Photographed by W. GALSWORTHY DAVIE and described by E. GUY DAWBER. The buildings illustrated in this volume are essentially of a stone type, and present a special variety of architecture, very dissimilar to those illustrated in the two previous volumes.

"This charming volume contains one hundred photographs of the most beautiful domestic buildings in the country . . . ."—The Daily News.

OLD ENGLISH DOORWAYS. A Series of Historical Examples from Tudor Times to the end of the XVIIIth Century. Illustrated on 70 Plates, reproduced in Collotype from Photographs specially taken by W. GALSWORTHY DAVIE. With Historical and Descriptive Notes on the subjects, including 34 Drawings and Sketches by HENRY TANNER, A.R.I.B.A., Author of "English Interior Woodwork."

"A most admirable addition to any library of architectural and artistic books. The subjects brought together in this volume comprise many of the best types of doorways to be seen in England."—The Building News.

B. T. BATSFORD, PUBLISHER,
94, High Holborn, London.
ORDERS OF ARCHITECTURE — GREEK, ROMAN, and ITALIAN. A Collection of Typical Examples from Normand’s “Parallels” and other Authorities, with Notes on the Origin and Development of the Classic Orders, and descriptions of the plates, by R. PHENÉ SPiERS, F.S.A., Master of the Architectural School of the Royal Academy. Fourth Edition, revised and enlarged, containing 27 full-page Plates, seven of which have been specially prepared for the work.

“A most useful work for architectural students, clearly setting forth in comparative form the various orders. Mr. Spiers gives recognised examples of the principal forms of capital and base, and of the finer and bolder profiles of entablatures, with their decorative complements. A good feature of the plates is the scale below each in English feet. Mr. Spiers’s notes are also very appropriate and useful.”—The British Architect.

“An indispensable possession to all students of architecture.”—The Architect.

EXAMPLES OF CLASSIC ORNAMENT FROM GREECE AND ROME. Drawn from the originals by LEWIS VULLIAMY. A Re-issue, containing 20 selected plates (size 19½ ins. x 13½ ins.), illustrating a choice collection of examples, with Descriptive Notes, by R. PHENÉ SPiERS, F.S.A., F.R.I.B.A.

This volume contains a selection of the most characteristic and useful plates from the rare folio work of Vulliamy, first published in 1825, and long since out of print and practically unobtainable. The plates display in their spirited execution an intimate appreciation of the refinement and vigour which characterises the best work in Athens and Rome, and to architectural students requiring authoritative and well-drawn illustrations they will be invaluable.

THE HISTORIC STYLES OF ORNAMENT. Containing 1,500 Examples of the Ornament of all Countries and Periods, exhibited in 100 Plates, mostly printed in Gold and Colours. With Historical and Descriptive Text (containing 136 Illustrations), translated from the German of H. DOLMETSCH.

A well-selected “Grammar of Ornament,” which gives particular attention to the Art of the Renaissance.


“Not since the publication of Owen Jones’ celebrated ‘Grammar of Ornament’ have we seen any book, brought out on popular lines, that could compare with Mr. Glazier’s ‘Manual. In many ways it is the better book of the two. . . . It simply abounds with beautiful, delicately-drawn illustrations, and forms a perfect treasury of designs.”—The Bookseller.

“It would be difficult, if not wellnigh impossible, to find a more useful and comprehensive book than this, which contains examples of all the leading groups of ornamental design, and many more minor ones, but invariably interesting and valuable.”—The Athenæum.
Thick demy 8vo, cloth, gilt. 12s. 6d.


"A LIBRARY, A MUSEUM, AN ENCYCLOPÆDIA, AND AN ART SCHOOL IN ONE. TO RIVAL IT AS A BOOK OF REFERENCE ONE MUST FILL A BOOKCASE."—The Studio.

Demy 8vo, art linen, gilt. 6s. net.

THE PRINCIPLES OF DESIGN. A Textbook especially designed to meet the requirements of the Board of Education Examination Syllabus on "Principles of Ornament." By G. Woolliscroft Rhead, Hon.A.R.C.A. With 16 photographic plates and over 400 other Illustrations, chiefly from line drawings.

Crown 8vo, cloth. 35. 6d. net.


"Everyone who employs practical lettering will be grateful for 'Alphabets, Old and New.' Mr. Day has written a scholarly and pithy introduction, and contributes some beautiful alphabets of his own design."—The Builder's Journal.

Crown 8vo, cloth. 5s. net.

LETTERING IN ORNAMENT. An Enquiry into the Decorative Use of Lettering, Past, Present, and Possible. By Lewis F. Day. With 200 Illustrations from Photographs and Drawings.

"The book itself is an admirable one, and the author's clearness of thought and expression makes it most readable and instructive. . . . The illustrations range over a wide field and are invaluable, as they show at once what has been done by the artists of many nations."—The Builder's Journal.

Crown 8vo, cloth. 5s. net.


Demy 8vo, cloth, gilt, price (about) 6s. 6d. net.

ENAMELLING. A Comparative Account of the Development and Practice of the Art. For the Use of Artists, Craftsmen, Students, &c. By Lewis F. Day. With 115 Illustrations, reproduced from special drawings and photographs.

[Ready in November, 1907.

This volume will form a very comprehensive survey of the course of enamelling, both as an art in itself and as a branch of the jeweller's craft. The book should appeal to all who practise enamelling, and to those who only take an interest in it.

B. T. BATSFORD, PUBLISHER,
MR. LEWIS F. DAY'S HANDBOOKS of ORNAMENTAL DESIGN.

DENY 8vo, cloth, gilt. 7s. 6d. net.

PATTERN DESIGN. A Book for Students, treating in a practical way of the Anatomy, Planning, and Evolution of Repeated Ornament. Containing 300 pages of text, with upwards of 300 Illustrations, reproduced from drawings and from photographs.

"Every line and every illustration in this book should be studied carefully and continually by everyone having any aspiration toward design."—The Decorator.

DENY 8vo, cloth, gilt. 8s. 6d. net.

ORNAMENT AND ITS APPLICATION. A sequel to "Pattern Design," and an Introduction to the Study of Design in relation to Material, Tools, and ways of Workmanship. Containing 320 pages, with 300 Illustrations of Decorative Objects and Ornament, reproduced from Photographs and Drawings.

Mr. Walter Crane, writing in the "Manchester Guardian," says: "... The work can be confidently commended as a most workmanlike and accomplished treatise not only to all students of design, but to artists and craftsmen generally. The illustrations are extremely rich and varied."

"It bears the unmistakable impress of originality and practical ability. ... It deals with its subject far more fully than any previous publication, whilst the numerous excellent illustrations will be an invaluable aid to teacher and student."—The Studio.

THICK CROWN 8vo, cloth, gilt. 12s. 6d.

NATURE IN ORNAMENT. An Enquiry into the Natural Element in Ornamental Design, and a Survey of the Ornamental Treatment of Natural Forms. With 450 Illustrations. 3rd Edition, revised and enlarged.

"A book more beautiful for its illustrations or one more useful to students of art can hardly be imagined."—The Queen.

Medium 8vo, cloth, gilt. £1 1s. net.


"Contains a more complete account—technical and historical—of stained and painted glass than has previously appeared in this country."—The Times.

"Mr. Day has done a worthy piece of work in more than his usual admirable manner. ... The illustrations are all good, and some the best black-and-white drawings of stained glass yet produced."—The Studio.

DENY 8vo, cloth, gilt, price (about) 12s. 6d. net.


With 300 Illustrations of typical heraldic design, old and new.

[Ready in November, 1907.


"Such a book has long been needed, and the appearance of this handsome volume at such a moderate price will be hailed with satisfaction by students of design everywhere."—Arts and Crafts.

Imperial 4to, handsomely bound in cloth gilt. £1 5s. net.

DECORATIVE FLOWER STUDIES for the use of Artists, Designers, Students and others. By J. FOORD. A series of 40 full-page Plates, coloured in facsimile of the Author's original water-colour drawings, accompanied by 350 Studies of Detail showing the Development of the Plant in successive stages. With Descriptive Notes.

"A truly valuable and beautiful book. . . . The coloured plates are nearly all good; they have a certain spaciousness of treatment that is full of delicacy and freedom; and we have no doubt at all that the book, considered as a whole, is a real gain to all who take delight in the decorative representation of flowers."—The Studio.

Imperial 4to, handsomely bound in cloth, gilt. £1 10s. net.

DECORATIVE PLANT AND FLOWER STUDIES. For the Use of Artists, Designers, Students, and others. By J. FOORD. Containing 40 full-page Plates, coloured in facsimile, of the Author's original Water-Colour Drawings, with a Description and Sketch of each plant, and 450 Studies of growth and detail.

"Never before has the essential character of different plants received from the point of view of their adaptability for decorative purposes the careful study and brilliant representation which they receive at Miss Foord's hands in this exquisitely printed and coloured book."—Daily Telegraph.

"Alike to the lover of nature and the student of design, this volume will prove a rich fund of delight and instruction."—The Queen.

Crown 8vo, cloth. 3s. 6d. net.


"In fact, the very grammar and technique of design is cemented within the compass of this volume, which is likely to prove a powerful aid to those who propose to devote themselves to designing, an occupation in which there is a wide and ample field."—The Queen.

Large 8vo, cloth. 3s. 6d. net.

SOME TERMS COMMONLY USED IN ORNAMENTAL DESIGN, their Application Defined and Explained. By T. ERAT HARRISON and W. G. PAULSON TOWNSEND, Examiners in Design to the Board of Education. With numerous Illustrations, including many beautiful examples of design.

B. T. BATSFORD, PUBLISHER,
94, High Holborn, London.
OLD SILVERWORK, CHIEFLY ENGLISH, FROM THE XVTH TO THE XVIIIth CENTURIES. A series of choice examples selected from the unique loan collection exhibited at St. James's Court, London, in aid of the funds of the Children's Hospital, supplemented by some further fine specimens from the collections of the Dukes of Devonshire and Rutland. Edited, with Historical and Descriptive Notes, by J. Starkie Gardner, F.S.A. Containing 121 beautiful Collotype Plates reproduced in the most effective manner, and illustrating some of the choicest specimens of the Art during the Stuart, Queen Anne, and Georgian periods.

Folio, buckram, gilt. £5 5s. net.

ENGLISH INTERIOR WOODWORK of the XVI., XVII., and XVIII. Centuries. A series of 50 Plates of Drawings to scale and Sketches, chiefly of domestic work, illustrating a fine series of examples of Chimney Pieces, Panelling, Sides of Rooms, Staircases, Doors, Screens, &c., &c., with full practical details and descriptive text. By Henry Tanner, A.R.I.B.A., Joint Author of "Some Architectural Works of Inigo Jones."

Large 8vo, cloth, gilt. 12s. 6d. net.

THE DECORATION OF HOUSES. A Study of House Decoration during the Renaissance Period, with suggestions for the decorative treatment, furnishing, and arrangement of modern houses. By Edith Wharton and Ogden Codman, Architect. With 56 full-page Photographic Illustrations.

"The book is one which should be in the library of every man and woman of means, for its advice is characterised by so much common sense as well as by the best of taste."—The Queen.

Large folio, handsomely bound in old style. £1 10s. net.

THE DECORATIVE WORK OF ROBERT AND JAMES ADAM. Being a Reproduction of all the Plates illustrating Decoration and Furniture from their "Works in Architecture," published 1778—1812. Containing 30 large folio Plates (size, 19 inches by 14 inches) giving about 100 examples of Rooms, Ceilings, Chimney-pieces, Tables, Chairs, Vases, Lamps, Mirrors, Pier-glasses, Clocks, &c., &c., by these famous Eighteenth-century Designers.

Demy 4to, cloth, gilt. 12s. 6d. net.

PRACTICAL DRAPERY CUTTING. A Handbook on Cutting and Fixing Curtains, Draperies, &c., with descriptions and practical notes, for the use of Upholsterers, Cutters, and Apprentices. By E. Noetzli, formerly Lecturer and Instructor on Upholstery at the Municipal School of Technology, Manchester. Illustrated by 30 full-page Plates.
OLD CLOCKS AND WATCHES AND THEIR MAKERS.
Being an Historical and Descriptive Account of the different Styles of Clocks and Watches of the Past in England and Abroad, to which is added a List of 10,000 Makers. By F. J. Britten. Second edition, much enlarged, containing 740 pages, with 700 illustrations, mostly reproduced from photographs.

"It is a book which may be augmented in the future, but will scarcely be replaced, and which holds, in its way, a unique position in literature. . . . To the collector and amateur it is indispensable."—Notes and Queries.

Small folio, cloth, gilt, old style. £2 10s. net.

HEPPLEWHITE'S CABINET-MAKER AND UPHOLSTERER'S GUIDE; or, Repository of Designs for every article of Household Furniture in the newest and most approved taste. A complete facsimile reproduction of this rare work (published in 1794), containing nearly 300 charming Designs on 128 Plates.

Original copies when met with fetch from £17 to £18.

"Hepplewhite's designs are characterised by admirable taste and perfect workmanship. . . . They are kept clear of the pitfalls which proved so fatal to the reputation of Chippendale, and not a few of them attain to a standard of refinement beyond which it seems hardly possible to go."—The Cabinet Maker.

Imperial 8vo, cloth, gilt. 15s. net.


"This is a book of unusual excellence, for which students of Miss Simon's fascinating but obscure subject will have very good cause to be grateful. So little is known of the lives and personalities of the great cabinet-makers of the Georgian period that the additions to our knowledge which her industry and research have enabled her to make are not only of substantial value in themselves, but will entitle her book to a distinguished place in furniture literature. The illustrations add most appreciably to the value of this well-informed, original, and authoritative piece of work, in which nothing is slurred over, and nothing taken for granted."—The Standard.

Demy 4to, art linen, gilt. £1 5s. net.

COLONIAL FURNITURE IN AMERICA. By Luke Vincent Lockwood. An Historical and Descriptive Handbook of the Old English and Dutch Furniture, chiefly of the 17th and 18th Centuries, introduced into America by the Colonists. With 300 Illustrations of Chests, Couches, Sofas, Tables, Chairs, Settees, Cupboards, Sideboards, Mirrors, Chests of Drawers, Bedsteads, Desks, &c.

To collectors, amateurs, and furniture designers this volume cannot but be of the greatest interest and value, for while much of the furniture illustrated is of English origin, all the examples are in keeping with the best traditions of design and workmanship characteristic of English work of the 17th and 18th centuries.

B. T. BATSFORD, PUBLISHER,
94, High Holborn, London.
EXAMPLES OF FURNITURE AND DECORATION DESIGNED BY THOMAS SHERATON. Containing a selection of 167 specimens, reproduced on 16 Plates (18 ins. by 12 ins.), from his rare “Cabinet Maker and Upholsterer’s Drawing Book,” published 1791—1802.


DETAILS OF GOTHIC WOOD-CARVING. Being a series of Drawings from original work of the XIVth and XVth Centuries. By FRANKLYN A. CRALLAN. Containing 34 Photolithographic Plates, two of which are double, illustrating some of the finest specimens of Gothic Wood Carving extant. With sections where necessary, and descriptive text.

FRENCH WOOD-CARVINGS FROM THE NATIONAL MUSEUMS. A series of Examples printed in Collotype from Photographs specially taken from the Carvings direct. Edited by ELEANOR ROWE. Part I., Late 15th and Early 16th Century Examples; Part II., 16th Century Work; Part III., 17th and 18th Centuries. The 3 Series complete, each containing 18 large folio Plates, with Descriptive Letterpress, folio, in portfolios, price 12s. each net; or handsomely half-bound in one volume, £2 5s. net.

PRACTICAL WOOD-CARVING. A Book for the Student, Carver, Teacher, Designer, and Architect. By ELEANOR ROWE, twenty years Manager of the School of Art Wood-Carving, Kensington, author of “Hints on Chip-Carving,” “French Wood-Carvings,” &c. Containing 200 pages of Letterpress, with 114 Illustrations from Photographs and 55 from Line Drawings, showing the Carver at work, examples of Carving in progressive stages of execution, and numerous Illustrations of Old and Modern Carvings.

"Out of the rich stores of many years' knowledge and experience of her subject, Miss Rowe has given to all lovers of this beautiful handicraft a manual of the greatest value. Miss Rowe's long experience of teaching has given her the fullest acquaintance with the needs and difficulties of the carver, and thus her training is based upon a practical sympathy which makes it peculiarly helpful."—The Queen.
OLD ENGLISH WOOD-CARVING PATTERNS. A Collection of Facsimile Rubbings from Oak Furniture of the Jacobean Period. Specially prepared for the use of Teachers, Students, and Classes. By MARGARET F. MALIM. Comprising 30 Examples on 20 Plates (15 ins. x 11 ins.), reproduced by phototint process.

These full-size reproductions of the delightful patterns found on Old English furniture will be invaluable to wood carvers of all classes; for not only are they exceptionally good from the standpoint of design, but so easy of execution, that amateurs who have attained to but moderate skill in the craft can successfully reproduce them without difficulty.

WOOD-CARVING DESIGNS. A Series for Students, Teachers, Designers, and Amateurs. By MURIEL MOLLER. With Foreword by WALTER CRANE. Six imperial sheets (31 ins. x 22 ins.), comprising 31 Working Drawings of Panels, Frames, &c., with Photographic Reproductions of the finished work, and 20 designs for Furniture, in which the panels, &c., may be applied.

HINTS ON WOOD-CARVING FOR BEGINNERS. By ELEANOR ROWE. Containing notes on the tools, selection of the wood, and methods of carving, &c. Fourth Edition, revised and enlarged, with 23 full-page and smaller Illustrations.

"The most useful and practical small book on wood-carving we know of."—The Builder.

"Full of sound directions and good suggestions."—The Magazine of Art.

HINTS ON CHIP-CARVING and Simple Northern Styles. Containing practical instructions on the setting out of the patterns, on the use of the tools, and the methods of carving. By ELEANOR ROWE. With 40 Illustrations.

"A capital manual of instruction in a craft that ought to be most popular."—Saturday Review.

ENGLISH AND SCOTTISH WROUGHT IRONWORK. A Series of Examples of English Ironwork of the best period, with which is included most that now exists in Scotland. By BAILEY SCOTT MURPHY, Architect. Containing 80 fine Plates (size 21½ ins. by 14½ ins.), 68 reproduced from measured drawings, and 12 from photographs specially taken. With Descriptive Text.

"This volume stands alone as a unique collection of the best work in wrought iron done in Great Britain. It is replete with exact delineations and precise dimensions technically and thoroughly realised for the student and practical craftsman."—The Building News.


"A most excellent manual, crowded with examples of ancient work. The Introduction is by Mr. Starkie Gardner, and students know what that name implies."—The Studio.


PICTORIAL COMPOSITION AND THE CRITICAL JUDGMENT OF PICTURES. A Handbook for Students and lovers of Art. By H. R. POORE. With about 150 Illustrations, chiefly reproduced from photographs, of celebrated pictures, including numerous elucidatory diagrams.

ART PRINCIPLES IN PORTRAIT PHOTOGRAPHY: Composition; Treatment of Backgrounds, and the Processes involved in Manipulating the Plate. By OTTO WALTER BECK. With 138 full-page and smaller illustrations, reproduced from specially taken photographs and original diagrams.

"The book deals very ably with the limitations and with the possibilities of the camera in portraiture. Too often the photographer has neither received any serious artistic training nor had the opportunity for intelligent study. While I do not think there is any short cut to success in Pictorial Portraiture, the book cannot fail to be most helpful and conducive to good if followed out."—MR. FURLEY LEWIS, F.R.P.S.

"Mr. Sachs has given us a work which most usefully and adequately fills a gap in architectural literature."—The British Architect.

"The undertaking surpasses anything of the kind ever attempted in this country."


Mr. Clarke's handbook is the best of its kind."—The Surveyor.


"It will be found a suggestive and useful book on the subject."—The British Architect.


B. T. Batsford, Publisher, 94, High Holborn, London.
MODERN SCHOOL BUILDINGS, ELEMENTARY AND SECONDARY.

"Mr. Clay’s book is an eminently practical one, illustrated by actually executed examples. It is full of valuable information carefully arranged, and the author is to be congratulated on the production of a work which should at once take rank as the standard authority on the subject."

The Architectural Review.

RESIDENTIAL FLATS OF ALL CLASSES, INCLUDING ARTISANS’ DWELLINGS. A Practical Treatise on their Planning and Arrangement, together with chapters on their History, Financial Matters, &c. By Sydney Perks, F.R.I.B.A., P.A.S.I. Containing 300 pages, with 226 Illustrations, including plans and views of important Examples by leading architects in England, the Continent, and America.

"The great monograph of the year (1905) was Mr. Perks’ book on the planning of flats—a standard work of considerable importance."—The Building News.


To those contemplating the building of a country house, this volume will be of the greatest service. It contains advice and hints on every essential point, including the selection of the site, the planning and arrangement of the structure, the practical details of construction and sanitation, the decoration of the interior, and the laying-out of the garden.

A BOOK OF COUNTRY HOUSES. Containing 62 Plates reproduced from Photographs and Drawings of Perspective Views and Plans of a variety of executed examples, ranging in size from a moderate-sized Suburban House to a fairly large Mansion. By Ernest Newton, Architect.

The houses illustrated in this volume have been planned during the last ten years, and may be taken as representative of the English Country House of the present day. They offer much variety in their size, their sites, the character of the materials in which they are constructed, and their types of plan.

"Every example given is an illustration of very considerable skill. The plans are all excellent—well devised on economical yet convenient lines, well lit, comfortable, and with every little point thought out; while the elevations are pleasing without being extravagant. Such a book is admirable in its suggestiveness, and useful to all."—The Architect's Magazine.


"Those who desire grace and originality in their suburban dwellings might take many a valuable hint from this hooky."—The Times.


"The cottages which Mr. Adams has selected would do credit to any estate in England."—The Times.

HOUSES FOR THE WORKING CLASSES. Comprising 52 Typical and Improved Plans, with Elevations, Details, &c., and Descriptive Text, including Notes on the Treatment and Planning of Small Houses. By S. W. Cranfield and H. I. Potter, A.A.R.I.B.A. Second Edition, revised and enlarged. This book deals with Cottages suitable for the Working Classes in Suburban and Rural Districts. The majority of the examples illustrated consist of two and three-storey dwellings, adapted to be built in pairs, groups, or terraces, and vary in cost from £160 to £650.

MODERN HOUSING IN TOWN AND COUNTRY. Illustrated by examples of municipal and other schemes of Block Dwellings, Tenement Houses, Model Cottages and Villages, and the Garden City, together with Illustrations of the Cheap Cottages Exhibition. By James Cornes. With many Plans and Views from Drawings and Photographs. Full Descriptive Text and particulars of Cost, &c.

MODERN SUBURBAN HOUSES. A Series of Examples erected at Hampstead, Bickley, and in Surrey, from the designs of C. H. B. Quennell, Architect. Containing 44 Plates, consisting of Exterior and Interior Views, reproduced from special photographs, and large-scale plans, from the author's drawings.

B. T. Batsford,
Publisher,
94, High Holborn, London.
MODERN PRACTICAL CARPENTRY. For the use of Workmen, Builders, Architects, and Engineers. By GEORGE ELLIS, author of "Modern Practical Joinery," &c. Containing a full description of the Methods of Constructing and Erecting Roofs, Floors, Partitions, Scaffolding, Shoring, Centering, Stands and Stages, Cofferdams, Foundations, Bridges, Gates, Tunnels, Excavations, Wood and Half-timber Houses, and various Structural Details. Together with new and simple methods of finding the Bevels in Roofs, Setting-out Domes, Steeples, &c., a concise Treatise on Timber, Notes on the Woods used, a Glossary of Technical Terms and Phrases, and a chapter on the Uses of the Steel Square. 450 pages, with 1,100 clear and practical Illustrations.

"A handsome and substantial volume. The product has been well carried out. It excels nearly all in its completeness. There is a large number of clear detailed drawings. The production of the work is worthy of the excellence of the subject-matter." — The Carpenter and Builder.

"The book is full of sound, practical matter. It is profusely illustrated with the clearest of line drawings and photographs, not mere sketches, but working drawings of the highest possible value. Anyone confronted with an unusual difficulty would almost surely find its solution somewhere in the volume." — The Building News.

MODERN PRACTICAL JOINERY. A Treatise on the Practice of Joiner’s Work by Hand and Machine. By GEORGE ELLIS. Containing a full Description of Hand-tools and their Uses, Workshop Practice, Fittings and Appliances, the Preparation of all kinds of House Joinery, Bank, Office, Church, Museum and Shop-fittings, Airtight Cases, and Shaped Work. With concise Treatises on Stair-building and Hand-railing, and a Glossary of Terms, &c. 380 pages, with 1,000 practical Illustrations.

"In this excellent work the mature fruits of the first-hand practical experience of an exceptionally skilful and intelligent craftsman are given. It is a credit to the author’s talent and industry, and is likely to remain an enduring monument to British craftsmanship. As a standard work it will doubtless be adopted and esteemed by the architect, builder, and the aspiring workman." — The Building World.


BUILDING MATERIALS: THEIR NATURE, PROPERTIES, AND
MIDDLETON, Architect, A.R.I.B.A., Author of "Stresses and
Thrusts," "Drainage," &c. Containing 450 pages of Text, with
200 Illustrations from specially prepared drawings, and 12 full-
page Photographic Plates.

This work contains a résumé of the latest and most reliable information on
the subject, presented in a clear and concise way.

Crown 8vo, cloth, gilt. 10s. net.

BUILDING CONSTRUCTION AND DRAWING. A Text-
BOOK ON THE PRINCIPLES AND DETAILS OF MODERN CON-
STRUCTION. For the Use of Students and Practical Men.
By CHARLES F. MITCHELL, assisted by GEORGE A. MITCHELL,
Lecturers on Building Construction at the Polytechnic Institute,
London FIRST STAGE OR ELEMENTARY COURSE. 7th Edition
(70th Thousand), revised and greatly enlarged. Containing
470 pages of Text, with 1,100 Illustrations, fully dimensioned.

"The book is a model of clearness and compression, well written and admirably illustrated,
and ought to be in the hands of every student of building construction."—The Builder.

Crown 8vo, cloth, gilt. 5s. 6d.

BUILDING CONSTRUCTION. A TEXT-BOOK ON THE PRIN-
CIPLES AND DETAILS OF MODERN CONSTRUCTION. By CHARLES
F. MITCHELL, assisted by GEORGE A. MITCHELL. (ADVANCED
AND HONOURS COURSES.) For the use of Students preparing
for the Examinations of the Board of Education, the Royal
Institute of British Architects, the Surveyors' Institution, the
City Guilds, &c., and for those engaged in building. Containing
800 pages of Text, with over 750 Illustrations, fully dimensioned.
5th Edition (33rd Thousand), thoroughly revised and much
enlarged.

"Mr. Mitchell's two books form unquestionably the best guide which any student can
obtain at the present moment. In fact, so far as it is possible for anyone to compile a satisfactory
treatise on building construction, Mr. Mitchell has performed the task as well as it can be
performed."—The Builder.

Crown 8vo, cloth, gilt. 5s.

BRICKWORK AND MASONRY. A Practical Text-book for
Students and those engaged in the Design and Execution of
Structures in Brick and Stone. By CHARLES F. MITCHELL,
assisted by GEORGE A. MITCHELL. Being a thoroughly revised
and remodelled edition of the chapters on these subjects from
the authors' "Elementary" and "Advanced Building Construc-
tion," with special additional chapters and new illustrations.
400 pp., with about 600 Illustrations (fully dimensioned),
including numerous full and double-page Plates.

"Regarded in its entirety, this is a most valuable work. It is not a treatise, as the term is
generally understood, but a compendium of useful information admirably collated and well
illustrated, and as such has a distinct sphere of usefulness."—The Builder.

B. T. BATSFORD,
PUBLISHER,
94, High Holborn, London.
BUILDING SPECIFICATIONS for the use of Architects, Surveyors, Builders, &c. Comprising the complete Specification of a large House, with Stables, Conservatory, &c.; also numerous Clauses relating to Special Classes of Buildings, and Practical Notes on all Trades and Sections. By JOHN LEANING, F.S.I., Author of "Quantity Surveying," &c. Containing 630 pages of Text, with 140 Illustrations. The most comprehensive, systematic, and practical treatise on the subject.

"A very valuable book on this subject, and one which must become a standard work in relation thereto. ... Mr. Leaning has thoroughly mastered his subject in all its intricacy of detail, and in dealing with it is clear, concise, and definite." — *The Architect.*

Large 8vo, cloth, girt. 18s. net.


"Mr. Stock has supplied a manifest want in the literature of practical architecture and surveying, and there is no doubt his book will be of great practical use." — *The Builder.*

Crown 8vo, cloth, gilt. 4s. 6d. net.


"The student of building construction will find in this book all he ought to know as to the relation of stresses and thrusts to the work he may be engaged in. Foundations, chimneys, walls, roofs, steel joints, girders, stanchions, are all taken in detail, and the varying degrees of stress are calculated in a simple way, so that the merest tyro in mathematics will be able to appreciate and apply the principles laid down." — *The Surveyor.*

Crown 8vo, cloth, girt. 3s. 6d. net.


Prof. Henry Adams, writing to the Author, says:—"You have treated the subject in a very clear and logical manner, and I shall certainly recommend the book to my elementary students as the best of its kind."

Small 8vo, cloth, girt. 25. 6d. net.


"This most admirable little volume should be read by all those who have charge of building operations ... In a concise form it deals with many of the important points arising during the erection of a building." — *The British Architect.*
Large crown 8vo, cloth, gilt. 7s. 6d. net.


"Here at last is a book that can be confidently recommended as a comprehensive, practical, trustworthy, cheap, and really modern book on estimating. The book is excellent in plan, thorough in execution, clear in exposition, and will be a boon alike to the raw student and to the experienced estimator. For the former it will be an invaluable instructor; for the latter a trustworthy remembrancer and an indispensable work of reference."—The Building World.

Crown 8vo, cloth, gilt. 4s. 6d. net.


"Mr. Stephenson has succeeded in removing many of the difficulties in this branch of his profession, and anyone who has mastered this little book will be enabled to price a bill of quantities without recourse to his Laxon."—The Building News.

Crown 8vo, cloth, gilt. 3s. net.


"'Repairs' is a very serviceable handbook on the subject. The author proceeds, from the top floor downwards, to show how to value the items, by a method of framing the estimate in the measuring book. The modus operandi is simple and soon learnt."—The Building News.

Crown 8vo, cloth, gilt. 3s. net.


Large crown 8vo, cloth, gilt. 5s. net.


"The author is a recognised authority upon the subject of gas-lighting, and gas-fitters and others who intend to study gas-fitting in practical detail will find the book most serviceable."—The Builder.

Large 8vo, cloth, gilt. 4s. 6d. net.


E. T. Batsford,
Publisher,
94, High Holborn, London.

"The best treatise existing on Practical Plumbing." — The Builder.

"This work is an exhaustive treatise on the subject of House Sanitation, comprising all that relates to Drainage, Ventilation, and Water Supply within and appertaining to the house." — The Journal of the Royal Institute of British Architects.

Large thick 8vo, cloth, gilt. £1 12s. net.

SANITARY ENGINEERING. A Compendium of the latest and most reliable information on Sanitary Science in all its branches. By Colonel E. C. S. Moore, R.E., M.S.I. Second Edition, thoroughly revised and greatly enlarged. Containing 830 pp. of Text, with 860 Illustrations, including 92 large Folding Plates.

"... A full and complete epitome of the latest practice in sanitary engineering. ...

As a Book of Reference It Is Simply Indispensable." — The Public Health Engineer.

"... We know of no single volume which contains such a mass of well-arranged information. It is encyclopedic, and should take its place as the standard book on the wide and important subject with which it deals." — The Surveyor.

Large 8vo, cloth, gilt. 6s. net.


"The author has evidently a large practical experience of the subject on which he has written, and he has succeeded in compiling a book which is sure to take its place among the standard works on water supply." — The Surveyor.

Large 8vo, cloth. 35. 6d. net.


Small pocket size, leather. 15. 6d. net, or in celluloid case 25. net.


"It is obviously one of those things a tradesman should carry in his pocket as religiously as he does a foot rule." — The Plumber and Decorator.

"The amount of information this excellent little work contains is marvellous." — The Sanitary Record.

Large 8vo, cloth, gilt. 5s. net.

PRACTICAL SCIENCE FOR PLUMBERS. By J. Wright Clarke. Treating of Physics, Metals, Hydraulics, Heat, Temperature, &c., and their application to the problems of practical work. With about 200 Illustrations.
Crown 8vo, cloth, gilt. 3s. 6d. net.

Crown 8vo, cloth, gilt. 2s.
HYDRAULIC RAMS: THEIR PRINCIPLES AND CONSTRUCTION. By J. WRIGHT CLARKE, Author of "Pumps," "Plumbing Practice," &c. With results of Experiments carried out by the Author at the Regent Street Polytechnic and in various parts of the Country. Illustrated by 36 Diagrams.

Crown 8vo, cloth, gilt. 5s. net.

Royal 8vo, cloth, gilt. 15s. net.

PROFESSOR BANISTER FLETCHER'S VALUABLE TEXT-BOOKS FOR ARCHITECTS AND SURVEYORS. Arranged in Tabulated Form and fully indexed for ready reference.

Crown 8vo, cloth, gilt. 7s. 6d.

"It is no doubt the best work on the subject extant."—The Builder.
"We compliment Mr. Phillips Fletcher on his revision, and on the accuracy of the book generally."—The Surveyor.
"A safe, comprehensive, and concise text-book on an important technical subject. We imagine few surveyors' or architects' shelves will be without it."—The British Architect.
"One of the most complete works upon the subject. Of great assistance to students."—The Builder's Journal.
"A good treatise by a competent master of the subject."—The Building News.

B. T. BATSFORD, PUBLISHER,
94, High Holborn, London.
PROFESSOR BANISTER FLETCHER’S VALUABLE TEXT-BOOKS FOR ARCHITECTS AND SURVEYORS.

Arranged in Tabulated Form and fully indexed for ready reference.

**The New Editions, Revised and Brought Up to Date**

*Crown 8vo, uniformly bound in cloth, gilt. 6s. 6d. each.*


"It is the Law of Building for London in one volume."—*The Architect.*

"Illustrated by a series of invaluable coloured plates, showing clearly the meaning of the various clauses as regards construction."—*The Surveyor.*

**DILAPIDATIONS.** A Text-book on the Law and Practice. 6th Edition, thoroughly revised and enlarged, with the addition of all the most recent Acts and a large number of Legal Decisions, including a chapter on Fixtures.

"An excellent compendium on the law and practice on the subject."—*The Builder.*


"By far the most complete and practical text-book we have seen. In it will be found the cream of all the legal definitions and decisions."—*The Building News.*


"Very useful to students preparing for the examination of the Surveyors’ Institution."—*The Surveyor.*

"A complete guide to valuing land and houses for mortgage, renting, or investment, as well as for making valuations, when lands and houses are taken under compulsory powers by public bodies or companies. The tables contained in the Appendix are especially valuable, and there is an exhaustive index."—*The Property Market Review.*

*Crown 8vo, cloth, gilt. 5s. 6d.*

**ARBITRATIONS.** A Text-book for Arbitrators, Umpires, and all connected with Arbitrations, more especially Architects, Engineers, and Surveyors, in tabulated form, with the chief cases governing the same, and an Appendix of Forms, Statutes, Rules, &c. Third Edition, revised and largely re-written.

"Especially useful to young surveyors as a compendium of the knowledge which professional experience gives in more concrete form and with infinite variety of detail."—*The Surveyor.*

B. T. BATSFORD, Publisher, 94, High Holborn, London.
a. infirm

J