VILLA AND COTTAGE ARCHITECTURE.
Fern Cliff Villa, Wemyss Bay, Firth of Clyde
T. G. Collcutt, Architect, Glasgow.
VILLA AND COTTAGE ARCHITECTURE:

SELECT EXAMPLES OF

COUNTRY AND SUBURBAN RESIDENCES

RECENTLY ERECTED.

WITH

A FULL DESCRIPTIVE NOTICE

OF EACH BUILDING.

"... I see who has said that no materials can produce no consequences."

"A student unfurnished with the attempts of former architects is always apt to over-rate his own abilities; to mistake the most trifling extenuation for discovery of merit; and every coast new to him, for a new found country. . . . ."

"Invention is one of the great marks of genius; but if we closely examine, we shall find that it is by being conversant with the inventions of others that we learn to invent; as by reading the thoughts of others we learn to think."—Sir John Hayne.

LONDON:
BLACKIE & SON, PATERNOSTER ROW:
GLASGOW AND EDINBURGH.
1868.
CONTENTS.

BUILDINGS ILLUSTRATED AND DESCRIBED.

<table>
<thead>
<tr>
<th>PLATE.</th>
<th>DESCRIPTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>L.-V.</td>
<td>FERN CLIFF VILLA, Wemyss Bay, Firth of Clyde; J. T. Rochead, Architect</td>
<td>1</td>
</tr>
<tr>
<td>VI.-VIII</td>
<td>OAKLEIGH VILLA, Blairmore, Lochlong; John Gordon, Architect</td>
<td>5</td>
</tr>
<tr>
<td>IX.-XI</td>
<td>COTTAGE AT HOLLY VILLAGE, Highgate, near London; H. A. Darbishire, Architect</td>
<td>9</td>
</tr>
<tr>
<td>XII.-XV</td>
<td>SEYMOUR LODGE, Cove, Lochlong; A. &amp; G. Thomson, Architects</td>
<td>12</td>
</tr>
<tr>
<td>XVI.-XVII</td>
<td>VILLA AT TRINITY, near Edinburgh; J. C. Walker, Architect</td>
<td>15</td>
</tr>
<tr>
<td>XVIII.-XXI</td>
<td>CRAIG AILEY VILLA, Killcreggan, Firth of Clyde; A. &amp; G. Thomson, Architects</td>
<td>18</td>
</tr>
<tr>
<td>XXII.-XXIII</td>
<td>DOUBLE VILLA AT DERBY; HINE &amp; EVANS, Architects</td>
<td>22</td>
</tr>
<tr>
<td>XXIV.</td>
<td>GATES AND GARDEN WALL (FERNDIEAN VILLA), Cove, Lochlong; A. &amp; G. Thomson, Architects</td>
<td>25</td>
</tr>
<tr>
<td>XXV.</td>
<td>COTTAGE AT LUNDIN LINKS, Fifeshire; J. C. Walker, Architect</td>
<td>27</td>
</tr>
<tr>
<td>XXVI.</td>
<td>COTTAGES AT THIESK, Yorkshire; E. B. Lamb, Architect</td>
<td>29</td>
</tr>
<tr>
<td>XXVII.-XXVIII</td>
<td>VILLA-CARENO, Tufnell Park, Holloway, London; George Truefitt, Architect</td>
<td>31</td>
</tr>
<tr>
<td>XXIX.</td>
<td>VILLA AT GRANGE, Edinburgh; R. Thornton Shiel, Architect</td>
<td>35</td>
</tr>
<tr>
<td>XXX.-XXXV</td>
<td>COTTAGE ORNE, Mill Green, Essex (with an Alternative Design); H. E. Kendall, Jun., Architect</td>
<td>38</td>
</tr>
<tr>
<td>XXXVI.</td>
<td>ENTRANCE GATES OF THE COTTAGE ORNE (with an Alternative Design); H. E. Kendall, Jun., Architect</td>
<td>42</td>
</tr>
<tr>
<td>XXXVII.-XXXVIII</td>
<td>KINGSMUIR COTTAGE, near Peebles; David Cousin, Architect</td>
<td>43</td>
</tr>
<tr>
<td>XXXIX.-XLII</td>
<td>DOUBLE VILLA AT LANGSIDE, near Glasgow; A. &amp; G. Thomson, Architects</td>
<td>45</td>
</tr>
<tr>
<td>XLII.-XLIV</td>
<td>GOLDSHANGER RECTORY, near Maldon, Essex; Ewan Christian, Architect</td>
<td>50</td>
</tr>
<tr>
<td>XLV.-XLVI</td>
<td>VILLA AT CROSSHILL, near Glasgow; John Reid, Architect</td>
<td>54</td>
</tr>
<tr>
<td>XLVII.-XLVIII</td>
<td>CURATE'S HOUSE AT GOTHAM, Nottinghamshire; S. Dutton Walker, Architect</td>
<td>57</td>
</tr>
<tr>
<td>XLIX.</td>
<td>STRATH COTTAGE, Dumfriesshire; J. T. Rochead, Architect</td>
<td>61</td>
</tr>
<tr>
<td>L.</td>
<td>VILLA AT GRANTHAM, Nottinghamshire; HINE &amp; EVANS, Architects</td>
<td>64</td>
</tr>
<tr>
<td>LII. LIV.</td>
<td>VILLA AT DULWICH WOOD PARK, Sydenham Hill, near London; Banks &amp; Barry, Architects</td>
<td>67</td>
</tr>
</tbody>
</table>
### CONTENTS

<table>
<thead>
<tr>
<th>PLATES</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV. LXVI</td>
<td>WORCESTER LODGE, Middleton Road, Holloway, London;—G. TRUEFITT, Architect, 71</td>
</tr>
<tr>
<td>LVII. LXVIII</td>
<td>COTTAGE AT GOVAN, Renfrewshire;—J. T. ROCHHEAD, Architect, 74</td>
</tr>
<tr>
<td>LX. LX</td>
<td>FRIDAY BRIDGE PARSONAGE, near Wisbech, Cambridgeshire;—ewan CHRISTIAN, Architect, 77</td>
</tr>
<tr>
<td>LXI.</td>
<td>COTTAGE AT ROSENEATH, Dumbartonshire;—JOHN RAIRD, Architect, 83</td>
</tr>
<tr>
<td>LXII.</td>
<td>FARM-HOUSE AT BLUBBERHOUSES, near Harrogate, Yorkshire;—E. B. LAMB, Architect, 85</td>
</tr>
<tr>
<td>LXIII.-LXV.</td>
<td>VILLA ON SYDENHAM HILL, near London;—BANKS &amp; BARRY, Architects, 87</td>
</tr>
<tr>
<td>LXVI.-LXXII.</td>
<td>HOLMWOOD, Cathcart, Renfrewshire;—A. &amp; G. THOMSON, Architects, 91</td>
</tr>
<tr>
<td>LXXIII.-LXXV.</td>
<td>THE SYCAMORES, Old Trafford, near Manchester;—H. J. PAULL, Architects, 99</td>
</tr>
<tr>
<td>LXXVI. LXXVII.</td>
<td>DOUBLE VILLA, Victoria Park, Manchester;—Edward Walters, Architect, 104</td>
</tr>
<tr>
<td>LXXVIII. LXXIX.</td>
<td>ROSEBANK VILLA, Barlow Moor, near Manchester;—SPEAKMAN &amp; CHARLESWORTH, Architects, 109</td>
</tr>
<tr>
<td>LXXX.</td>
<td>CHIMNEY-PIECES, Holmwood, Cathcart;—A. &amp; G. THOMSON, Architects, 113</td>
</tr>
</tbody>
</table>

### ARCHITECTS WHO HAVE CONTRIBUTED TO THIS WORK

- **Mr. Oliver Ayliffe**, Manchester, Plates LXXIII-LXXV.
- **Mr. John Baird**, Glasgow, Plates XXVII-XXVIII.
- **Mr. Ewan Christian**, Edinburgh, Plates XI-XII.
- **David Coursin**, London, Plates XI-XII.
- **H. A. Darbishire**, Edinburgh, Plates XXVII-XXVIII.
- **John Gordon**, Glasgow, Plates X-XI.
- **Messrs. Hine & Evans**, Nottingham, Plates XXII-XXIII.
- **Mr. H. E. Kendall, Junr.**, London, Plates XXXIII-XXXIV.
- **E. B. Lamb**, Bath, Plates XXXIII-XXXIV.
- **H. J. Paull**, Manchester, Plates XXXIII-XXXIV.
- **J. T. Rochhead**, Edinburgh, Plates XIV-XV.
- **E. Thornton Shields**, Edinburgh, Plates XVI-XVIII.
- **Messrs. Speakman & Charlesworth**, Manchester, Plates LXXII-LXXIII.
- **A. & G. Thomson**, Glasgow, Plates XVI-XVIII.
- **Mr. George Truefitt**, London, Plates XXVI-XXVII.
- **J. C. Walker**, Edinburgh, Plates XXVII-XXVIII.
- **R. Dutton Walker**, Nottingham, Plates XXVII-XXVIII.
- **Edward Walters**, Manchester, Plates LXXVII-LXXVIII.
DEMAND has often been expressed for additions to the existing published works devoted to detailed illustration of modern buildings serviceable as models in future architecture. That demand it has been imputed to the architects of Great Britain that they are chary of responding to; and the alleged indifference to advantages, private and public, that are calculated to accrue from a dissemination of representations and written particulars of executed designs, has been contrasted with the readiness of continental architects to publish elaborate monographies of their chief productions. Such publications, added to and multiplied, eventually become a body of example and precedent returning the greatest benefit to the individual professor and contributor to the literature of his art, at the same time that they form material essential to growth of the art itself. Hitherto, the chief published works emanating from the profession, on this side the Channel, have been either designs having no reference to building accomplished or intended, or representations of structures and decorative details of bygone periods; or they have consisted, in each case, of little more than a single plan in addition to a pictorial view,—affording a mere instalment of the explanation desired, and sometimes even conveying, through the partial illustration, erroneous impressions as to the effect, the arrangement, and the construction of the building.

This Work aims at answering so much of the demand above referred to as is connected with domestic architecture, or house-building, on a particular scale of cost. It also aims at assisting those about to build, in forming their ideas as to what may be their particular requirements, and thus to avoid those suggestions and directions coming after a design has been made, and a builder's contract obtained, which form the chief reason why the cost of a building often
INTRODUCTORY NOTICE.

exceeds the estimate. He who has to occupy a house is necessarily an authority on the subject of his peculiar wants: it is manifest that he should state his ideas on points such as dimensions and number of rooms, and internal communications; although a competent professional adviser may be the best judge of what will most nearly respond to the expectation of the client—unpractised in foreseeing and judging results through the unavoidably-technical medium in which an architect's design has its representation.

It seemed to the projectors of the Villa and Cottage Architecture that whilst there were certain well-known volumes illustrative of palatial residences, and many others giving minute particulars of the construction of dwellings of the lowest cost and most restricted accommodation, there was a great deficiency of publications supplying examples of houses of intermediate cost, including habitations of several distinct classes. The present Work is devoted to houses of moderate dimensions, or erected at a cost (ascertained in nearly every one of the cases) ranging from £500 to £2500, but including some examples of more expensive character. The examples are selected from widely-separated parts of the country, and are the productions of nineteen different architects; and, whilst all have been found suitable to the requirements of domestic comfort, they show considerable diversity in internal arrangements, in the structural treatment of materials, and in decorative character, or style and ornamental detail. All the examples are productions of recent date.

It is hoped that the special features of this Work will render it valuable peculiarly as a suggestive publication, and as one agent in the production of new art and improved methods of building. The publication would ill satisfy the views of its projectors were it used as a copy-book. Whilst the intending occupant of a house has his own wants, but whilst on the other hand no individual has the right to offend or vitiate the public taste, it is out of the response to such special wants that requisite variety of character, and general gratification of the public eye, are obtained.

Every practical architect knows the essential difference of value between designs of the two classes already alluded to, and even between the representations of designs made with special reference to conditions of a particular site and a prescribed cost, but which do not arrive at the stage of execution, and those wherein the exemplification is that of accomplished work. The process of design is essential to successful arrangement of the features of plan, and to good art: to say so is but to assert a truism: but it frequently happens that original defects of the initiating process are corrected in building; as also it is found that the ornamentation which is apt to characterize in excess mere designs, disappears under the ordeal which is the only satisfactory test—the test of use.

The illustrations given in the Work, and the minute particulars accompanying them, are taken from drawings and data furnished by the architects.
INTRODUCTORY NOTICE.

of the buildings. In nearly every case, the plans of every storey, and the four sides of the building, are shown, as well as the internal construction; whilst details, enlarged, are added where requisite. The sections go to supply what has been imputed as a great omission in previous works of the same class. The scale adopted for the plans, and for the minor elevations, is \( \frac{1}{8} \)ths of an inch to 10 feet; whilst that for the principal elevations is, with two exceptions, \( \frac{1}{4} \)ths of an inch to 10 feet. By the smaller scale employed in part, it has been found practicable to illustrate a larger number of buildings than could have been otherwise given, without increasing in a corresponding degree the extent and the price of the Work; whilst from the uniformity of scale, for the plans throughout, the relative sizes of the houses may be approximately ascertained at a glance. The descriptive text gives in each case the name of the architect, and the date of erection of the building; it supplies a description of the locality, site, nature of foundation, and other conditions of the architect’s work; and it affords full information as to the accommodation provided, the internal arrangements, the materials and construction, and the cost.

Before the engravings were executed, the drawings were subjected to a careful scrutiny by the Editor; and, again, the proofs of the engravings were scrutinized by the architects and also by the Editor. By this repeated revision, the plates have been freed from omissions and defects that were in many of the drawings as at first supplied. The need for this scrutiny became the more apparent as the Work progressed; and, while the repeated correction of drawings and engravings tended greatly to retard the progress of publication and very materially to increase the outlay on the Work, the Publishers were so convinced of the enhanced value thereby imparted, that to the last no abatement was made in earnest endeavour to obtain completeness and accuracy. What the plates could not supply is to be found in the text. This last has been compiled from information furnished in reply to queries addressed to the architects; who had in every case submitted to them proofs of the letterpress, before publication, in order that any additions or corrections might be made.

In the descriptions of some of the examples from Scotland, certain terms will be met with that are in common use only in the northern part of the kingdom. Lest these should occasion any difficulty, a Glossary, which explains them, is given. Some discrepancies in the modes of showing certain features, as doorways and stairs, may be found in the plates. They have resulted from difference in the methods used by the architect-contributors, and, occasionally, from a desire not to omit useful information in deference to mere uniformity. In a small number of instances the architect has introduced into the drawings supplied for this Work, some improvements in the design which a review of the completed building had suggested to him. But this has not been permitted to go to the extent of material deviations.
INTRODUCTORY NOTICE.

In the descriptions mention is made of various building-contrivances, or structural arrangements, different from those generally in use in the common kind of house. It will be seen that hollow walls are becoming frequent in some parts of the country; and the professional reader will consider the relative merits of different methods of building them without interfering with the “bond” of the brickwork. Modifications of the ordinary form of sliding-sashes for windows, are referred to in connection with several of the examples. Thus, as amongst the number, in Messrs. Thomson’s works the small top-sashes (which are fitted with coloured glass) are fixed, and space for admission of air is obtained between the upper and the lower sash by having the latter hung so that it can descend, as well as be raised in the ordinary manner. Occupants of houses possessing this feature, prefer it to the French casements. There is one peculiarity of the planning in two of the Scotch examples, that is not to be recommended, namely the servants’ bed-closet in the kitchen. Probably, where it occurs, the feature is the result of special instructions.

The judgment of the reader will be most required when making use of the statements of cost. Great care has been taken not merely to get the items correct, and detailed where the nature of the contract, or contracts, permitted, but also to mention any matters of locality and materials that would affect price. Still, all attention must be paid to the great difference which exists between the cost of labour in one part of the country and in another,—and especially the difference between London prices and those of the country generally. Thus Messrs. Banks and Barry, in writing to the Publishers, estimated the London prices as at least 25 per cent. higher, in 1867, than the prices in Yorkshire or Scotland; and they particularly named a house built by them at Great Grimsby that had cost £3148, which, had it been built in one of the suburbs of London, would have cost over £4000. The difficulty of judging of cost, by examples, is further complicated by the circumstance of the great rise that has taken place in prices everywhere during recent years, or since the dates of the erection of the buildings as given in the text. This rise is particularly referred to in the description of Worcester Lodge; where it is considered to have been, in about eight years, what would be an amount approaching to 30 per cent. All London architects do not estimate the increase as so enormous; but, generally, it is regarded as in no case less than 15 per cent. A communication just received from Southampton, estimates the increase there, and in neighbouring districts, as “within the last few years fully 10 per cent.”

The amount stated as cost in each case does not include any items but those of the builder’s charges. Of course it does not include land: it generally excludes the formation of grounds, and the fencing, about the buildings; and, in particular, it does not include the architect’s charges. These are an uniform per-centage (5 per cent.) on the cost of the building, where the cost exceeds
such an amount as £1000, where travelling-expenses have not to be added, where several designs have not been made, where materials of a former building are not used, and where the architect does not act as the surveyor, or measurer, taking the quantities of materials and work from the drawings and specifications for the builder's use in estimating. The measuring-surveyor's charge usually comes in as part of the cost of the building; and in London, as indeed in many of the chief towns, it is considered most desirable that the "surveyor" and the architect should be different individuals. There remains, therefore, to be added to the amounts stated as building-cost, not less than 5 per cent. upon each, as well as the travelling and other extras, being architect's expenses, if any. Also, should the services of a clerk-of-works be deemed necessary, to secure a closeness of superintendence beyond what an architect will be bound to afford,—and which may be true economy even where the cost of a house falls within the limits kept in view in this publication,—the weekly stipend will have to be paid by the owner of the building, although the clerk-of-works will act as the deputy or subordinate of the architect. In the case of a cost below £1000, the reader may consider the professional charges as having been matter of special agreement; for, most architects would consider themselves ill-paid at the rate mentioned, for houses of the different classes below the £1000 cost. In fact, it is one problem of the improvement of the public taste in architecture, and the extended practice of building of a kind conducive to health and comfort, how to induce a general enlistment of the services of architects by the offer of remuneration adequate on the one side, and not a serious addition to building-cost on the other.

Where an architect is not employed, the apparent building-cost may be less than where he is; but the value of the article obtained is apt to be affected not simply by inferior and less artistic appearance, added to defective internal arrangements, but by speedy requirements of repairs. There is a wide but comprehensive interval of difference between the best work and much of that which is called best; that is to say, the interval includes, even comprehending what may have been in each of the cases properly specified or described, many varieties or qualities of material and workmanship. In short, not any of the safeguards against inferior work can be dispensed with advisedly, in building, where the natural tendency of self-interest on the one hand is to recognize the validity and sufficiency of the doctrine of caviat emptor, and where the unaided knowledge on the other, of the buyer, is inadequate for self-protection. These safeguards comprise careful selection of the executant of the work, and the having a design that has been carefully matured, and that is explained as clearly as delineation and description will permit; and, lastly, competent superintendence, sufficient to insure the performance of the letter of the contract, and adequate to the exposure of deviations from the original intention in those details wherein ordinary language does not keep pace with the influx
of qualifying phrases, that give different trade-acceptations in place of the one proper or original acceptance of a word, or with the lapse from their true meaning of nouns and adjectives employed in trade.

London, May, 1858.

SCOTTISH TECHNICAL TERMS
WHICH OCCUR IN THIS WORK.

BACK-STYLE, of door or gate; hanging-style, or upright portion of the framing, where the hinges are.
BACK: a piece of timber from 4 to 10 inches square.
BATTER with lead: secured with molten lead, or with pieces of lead driven into a groove or other cutting.
CAMB-SHEILD: having part of the ceiling or sofit sloped, through the apartment being partly in the roof; tent-formed.
CHIMNEY-CAN: chimney-pot.
CHIMNEY-STALK: chimney-stack.
CONDUCTOR: rain-water pipe.
COPE: coping.
CORNERS, in masonry: quoin-stones.
COUSSHE, in masonry: stretcher.
DOOR: wooden plug driven into a mortise cut in masonry or brickwork, for fixing joinery to.
DROVER, in stone-dressing: random-tooled; chisel-dressed.
EAVES-GUTTER: eaves-gutter.
FORE-STYLE, of door or gate; closing-style, or upright portion of the framing, farthest from the hinges.
INBING: reveal.

NAPERY-PRESS: a linen-closet, or linen-press.
PREFE: portion of roof between or contiguous to hips, the hip-rafters being termed piend-rafters.
PLATT: platform or landing.
POLISHED, as applied to freestone: rubbed till all marks of the tool are obliterated.
PRESS: a closet, frequently formed in the thickness of a wall.
RAGGLE: a rectangular groove cut in stone or brickwork.
SAFE-LINTEL, or SAFETY-LINTEL: the wooden lintel which is placed behind a stone lintel or an arch of a door or window.
SOILE: sill.
SOLE-PLATE: of iron beam: bottom flange.
SNECKED RUBBLE: uncursed rubble, in which the stones are used as they occur, the interstices between the larger stones being filled with smaller pieces. When this is done with great nicety, and so as to preserve perfectly the horizontal and vertical bond by the complete interlacing of the amorphous stones, the operation is termed snecking, and the work is called snecked rubble.
STANDARDS, of timber-framed partitions: quarters.
STRAP, as applied to interior of walls, for receiving lath and plaster: batten.
UPSTART, in masonry: a stone set on end.
FERN CLIFF VILLA,

WEMYSS BAY, FIRTH OF CLYDE.

J. T. ROOHEAD, ARCHITECT, GLASGOW.

PLATES I.—V.

This handsome ornamental Villa, erected in the year 1851, is pictur-
esquely situated not far from the pier at Wemyss Bay. Its site
is a slightly elevated and level strip of land between the public
road along the shore and a high range of red sandstone cliffs.
These cliffs are clothed with ivy, ferns, and other wild plants, and the grounds
both above and below them are richly adorned with natural wood, the whole
forming a fine back-ground to the house.

The general outline and arrangement of the ground-plan is disposed so as
to suit the irregular shape of the ground, which follows the indentations of the
cliff, and so that the windows of the sitting-rooms should command the finest
views. The large window of the dining-room looks north, and the view from
it embraces a long stretch of the Firth of Clyde, Loch Long, the entrances to
the Holy Loch and Loch Goil, with their bold mountain ranges, and the various
summer resorts upon their shores. The drawing-room faces the west, and from
its bay-window commands an extensive prospect of rich and varied scenery,
including the shores of Cowal and the island of Bute, over and beyond which
rise the lofty picturesque peaks of the island of Arran.

The entrance is placed in the south front (Plate III.), and the approach
kept well away from the windows of the principal rooms; the lawn in front
of them, being thus preserved intact.

Principal Floor (Plate II.)—On entering the porch a glass door on the
left opens upon the vestibule and corridor, which are well lighted down their
whole length by the large window at the end of the vestibule. On the left of the corridor is the door to the drawing-room and entrance to the staircase; at its further end is the door to the dining-room; and on the right is a door to a bedroom, and another to a passage communicating with the kitchen department, which contains, besides the kitchen, a servants' hall, butler's pantry and sleeping-room, scullery, laundry, milk-room, and larder, with stair to a servant's bedroom placed in an attic floor over the laundry.

The Upper Floor (Plate III) contains four good bedrooms, a dressing-room, and a bath-room with water-closet, all very compactly arranged with great economy in the lobby space.

Among the various features to be commended in the arrangements of this house, are the turn at right angles in the entrance from the porch to the vestibule, designed to secure the interior against draughts—that frequent source of annoyance and ill-health; the position of the conservatory, and the ready access to it from the drawing-room; the form and recessed situation of the staircase leading to the bedroom floor, and the important external feature which is made of it; the convenient position of the kitchen, well removed from the corridor, but near to the dining-room, with which it communicates by a service door; and the retired situation of the back entrance door.

In the exterior elevations will be found many striking features gracefully carried out. Of these we would instance the manner in which the richly mullioned bay-window of the drawing-room is carried up, giving an oriel and balcony to the principal bedroom, with the piquant corbelling and treatment of the gable over it; the change of plan made on the upper part of the staircase tower, with its many-gabled and high pointed octagonal roof, terminating with finial and vane; and the two overhanging corbelled windows in other bedrooms; all of which, whilst they give convenience and impart elegance to the interior arrangements, are made at the same time to add greatly to the variety and picturesque effect of the exterior.

The external walls, which are two feet thick, are all built of an easily wrought sandstone of a red colour, obtained from a quarry in the immediate vicinity. The base course, corners, stairs and steps, chimney-stacks, and all dressings of doors and windows, are of hewn stone, the moulded portions being polished, and the walls between built of coursers about five inches high, left rough on the face, and pointed with hydraulic lime. The internal walls that
contain fire-places are also of stone, the partitions of ground-floor are of hard-burned brick, and those in the bedroom floor of wood standards, lathed and plastered. The inner side of all external walls, and both sides of stone walls that are within, are lined with lath on straps before plastering.

The carpenter work is executed in best Quebec yellow pine, the finials or terminals of gables and gablets in pitch pine; and all the internal wood finishings in best St. John's yellow pine. All the windows except those of the kitchen portion are glazed with plate-glass, the others with crown-glass.

The roof of the tower over the staircase is covered with lead, and its construction is shown by the section on Plate IV. In the engravings this roof is represented as covered with slate, a material that would tend to increase its picturesque character, but more suitable for a situation less exposed to storms than that in which the house is built. The terminal and vane of this tower are shown enlarged on Plate II.

The other roofs and gablets are steeply pitched and boldly projected, the eaves and gables being enriched with moulded cantilevers and pinnacles; they are all covered with Easdale or West Highland slate, with lead on ridges and flanks, gutters, &c. The construction of the roofs will be readily understood from the general section, and their arrangement from the elevations and perspective view. Though much broken up with smaller roofs running into the larger, it presents no difficulties requiring explanation. The section is taken on the dotted line marked AB on the ground-plans.

The height of the ceilings in the principal rooms is 12 feet, and that of the bedrooms over them is 11 feet, part of which height is gained out of the roof by keeping the ceiling joists several feet higher than the wall-heads, as shown on the section.

The style adopted is what may be termed mixed Tudor and Elizabethan, freely modified and blended together. All the internal finishings are carried out in the same style as the external, and with equal richness of detail; the corridor being laid with encaustic tiles.

Besides three plates containing the plans of ground and bedroom floors, one section and elevations of three sides of the house, we give a perspective view (Plate I), in which the side not given in elevation is well shown; also a sheet of details (Plate V.), containing the more important and decorative features of the
VILLA AND COTTAGE ARCHITECTURE.

building, drawn to a larger scale, by means of which the construction, finishing, and ornamentation will be found fully and clearly explained.

The cost of the house is here given from the accounts of the various tradesmen:—

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mason and Bricklayer work</td>
<td>£570 10 1</td>
</tr>
<tr>
<td>Carpenter and Joiner work, including Ironmongery and Glass</td>
<td>552 12 6</td>
</tr>
<tr>
<td>Slater work</td>
<td>73 6 3</td>
</tr>
<tr>
<td>Plumber work</td>
<td>134 9 4</td>
</tr>
<tr>
<td>Plaster work</td>
<td>79 4 4</td>
</tr>
<tr>
<td>Marbles, Bells, and Encaustic Tiles</td>
<td>53 12 0</td>
</tr>
</tbody>
</table>

£1733 14 7

The conservatory was erected sometime after the completion of the building, and is not included in the statement of cost.
OAKLEIGH VILLA,
BLAIRMORE, LOCH LONG.

JOHN GORDON, ARCHITECT, GLASGOW.

PLATES VI.—VIII.

OAKLEIGH VILLA is situated on the shores of Loch Long, near its junction with the Firth of Clyde, and stands upon a rising ground about two hundred and fifty feet back from the road which skirts the loch, and fully forty feet above the level of its waters. It was erected in the year 1863. In front of the house there is a steep rocky bank clothed with natural wood and creeping plants, which forms a pleasing contrast to the smooth-kept lawn beneath it. The platform on which the house stands is of limited extent, and in the rear the hills rise to a height of some eighteen hundred feet.

The house faces the east, an exposure not desirable, but necessitated by the nature of the ground, and having its drawbacks well compensated by a very fine view. On the left, the front windows command Loch Long to its junction with Lochgoil, with the rugged Arrochar hills beyond—in front are the shores of Cove and Kilcreggan, and the whole stretch of the Clyde from Greenock to Bowling—to the right the view includes Gourock, and the channel as far as Wemyss Bay.

The house is in the Italian style, and in respect of internal arrangement and external appearance is specially adapted to the site. The leading features of the design are a spacious five-lighted bow-window, rising the whole height of the front, and lighting the dining and drawing rooms; a tower with a saddle-back roof and turret, terminating about fifty-three feet above the ground; and an open entrance porch, with semi-circular arches, springing from columns with carved capitals.
Principal Floor.—On the ground floor (Plate VII.) the front or east side of the building is occupied by the entrance porch, vestibule, staircase, and dining-room; behind are the parlour, lower bed-room, kitchen, and butler's pantry, the latter occupying a central position between the dining-room and kitchen, and communicating with both; whilst the scullery, servants' room, laundry, coal depot, &c., form a wing by themselves, extending northwards from the north gable of the main building. There is also a wine-cellar under the dining-room, to which access is had by a small stair entering from the dining-room closet.

The Upper Floor consists of the drawing-room, three bed-rooms, bathroom, &c. A stair opening from the lobby in the upper floor leads up to a comfortable smoking-room in the tower.

The height from floor to ceiling of the principal floor is twelve feet, and in the upper floor the height of the drawing-room is eleven feet six inches, and of the bed-rooms and tower-room ten feet.

The external walls are two feet thick, and constructed of schistose rubble, procured by quarrying about a hundred yards behind the house, with dressings of white freestone, brought by water from near Glasgow, a distance of about thirty miles. The freestone has the mouldings polished, and the plain surfaces partly d roved and partly finely dabbed. The rubble of the three principal fronts is laid in courses, and pointed with Portland cement; that of the rear is irregularly disposed, and rough-cast with hydraulic lime. The walls at the ground level, as well as the whole area inclosed within them, are covered with a layer of asphalte, as a protection against damp rising from the ground. The inner sides of all external walls are lathed before plastering.

The front roofs are covered with Welsh slates disposed in ornamental bands, and the others with undersized Ballachulish slates, the whole being rendered storm proof by means of asphalted felt laid betwixt the slates and slate-boarding. The gutters, planks, piends, and ridges are covered with lead, the ridges being secured with galvanized malleable iron straps. The flashings round chimney stalks, and covering of the platform of the porch, are also of lead. The back of the main roof, and both sides of the wing roof, have galvanized cast-iron eave-runs, supported by galvanized malleable iron hooks. The ridges of the porch, tower, and bow-window are surmounted by an ornamental cast-iron cresting.
OAKLEIGH VILLA.

FRONT ELEVATION

PLAN OF GROUND FLOOR

PLAN OF UPPER FLOORS

PLAN OF ROOF
The carpenter work is of best Quebec yellow pine, and the joiner work of best St. John's yellow pine. The windows of the three principal fronts are glazed with plate-glass; those in the rear and the projecting wing with crown-glass. All the windows of the principal floor are furnished with shutters, excepting the bow-window of the dining-room, which, in common with the bedroom windows of the upper floor, has imitation shutters only.

Internally the finishings and decorations are in keeping with the exterior. The vestibule is paved with encaustic tiles, and the main lobby floor is of polished pitch pine, having a broad inlaid border of oak, ebony, teak and plane-tree, arranged in geometrical forms. The staircase is lighted by a large and finely painted window of a pictorial character. The stair, with exception of Arbroath stone treads, is constructed chiefly of polished pitch pine, and is furnished with a highly ornamental railing in which fret panels enriched with carved pateras alternate with spiral balusters. The balusters with their capitals and bases are of plane-tree, the fretwork of pitch pine, 1½ inch thick, with decorations of teak planted upon it, and the cope and string-board are of oak; the whole being French polished.

The interior of the bow-window, forming the end of the drawing-room, is finished with detached columns, having moulded bases and foliated caps, supporting moulded arches, which are enriched with laurel bead and floral clasp. The jambs of this window are lined with mirrors surmounted by decorated panels, which inclose female heads in high relief, emblematic of spring and summer. A plaster coving, ornamented with trefoil, large water leaves, and natural grass, bounded by a top and bottom moulding, the former relieved with hair-bell and ivy leaf, and the latter with convolvulus enrichment, forms the angle of the ceiling. The dining-room has also plaster ornamentation specially designed for it. The principal features of these interior decorations are shown in detail on Plate VIII.

All the rooms have marble chimney-pieces, those of the sitting-rooms being somewhat ornamental, the others plain.

The house is fitted throughout with gas-pipes; hot and cold water are supplied to the bath-room, pantry, principal bed-room, and scullery; and a coil of hot-water pipes, connected with the boiler used for the green-house, serves to heat and ventilate the lobby in winter.
The entire cost of the building was under £2000. This sum includes all the decorative work already described, the papering of bed-rooms, size colouring of public rooms, staircase, and porch, and painting of the wood-work of house and out-houses; the erection of a poultry-house and yard for two dozen poultry; and of a green-house 22 feet by 11 feet, with hot-water heating apparatus; the sinking and building of a large well, and the building of the front and back boundary walls, the one 186 feet long and 4½ feet high, the other 193 feet long and 10 feet high, together with the entrance gate and gate pillars.

The building is illustrated by plans of the several floors, and elevations of three of its sides, also by a perspective view, in which the side not given in elevation is well shown. The tasteful enrichments of the drawing-room, the elaborate staircase railing, and portions of the porch, are shown in detail in a separate sheet.
COTTAGE AT HOLLY VILLAGE.
HIGHGATE NEAR LONDON.
A. HARISHINE, ARCHITECT, LONDON.

PERSPECTIVE VIEW
OF EAST AND NORTH FRONTS

PLAN OF GROUND FLOOR

PLAN OF CHAMBER FLOOR

FRONT ELEVATION
This is one of a group of eight detached cottages that have been built at Highgate, near London, for Miss Burdett Coutts. It was erected in the year 1865, and is situated on the east side of Swain's Lane, which forms the boundary of the grounds of Holly Lodge, Miss Coutts' residence, from various points in which, these cottages are designed to form picturesque and ornamental features.

The ground upon which it is built is of a triangular form, and slopes irregularly towards the west and north-west; and the arrangements of the cottage have been disposed with special reference to its site, which is rendered still more irregular by the positions of some large trees.

This house is designed to be occupied by a family, and by a lodger who requires good, and at the same time retired, apartments, and whose wants can be attended to by the family who let the rooms, without interfering with the privacy of either.

Principal Floor.—The entrance is through an open porch in the east front, a door opposite opens on the lobby of the house proper, and another at the right hand on the lobby of the lodger's apartments. These rooms are entered from their own lobby, and consist of a parlour and bed-room, to which are attached a water-closet, a pantry, and a place for coals under the stair. The arrangement of these rooms has been so contrived as to secure for their occupant all the privacy, quiet, and comfort of a separate dwelling, without the responsibilities
of a household. The family house contains on the ground floor a parlour, kitchen, wash-house or scullery, and a pantry, besides a boiler in the scullery, and a water-closet, entered from the lobby, all very conveniently placed. The lobby is 7 feet wide, and contains the staircase to the chamber floor; the stair, being made to begin opposite the parlour door, ascends over the entrance door, and gives a wide and airy upper landing.

The Upper Floor contains three good bed-rooms, the doors to which are all well contrived to prevent draughts, and screen the positions of the beds.

The style adopted is Domestic English Gothic, carried out with much fulness of detail and ornamentation. The internal finishings are executed in the same taste as those of the exterior.

The walls are constructed of good stock bricks, the external facework being executed with a superior kind of stock bricks called paviors, which are harder and have a richer and more uniform colour than the common stocks; the plinths, string-courses, door and window jambs, and the ornamental facework, such as lozenges, diamonds, &c., are executed with white Huntingdon bricks, which are whiter than paviors, and more durable than the Suffolk bricks generally employed for this purpose. All the corners of the walls and of door and window jambs are splayed or enriched with a quirked bead, which softens and gives a general richness and refinement to the outlines at a trifling expense. Portland stone is employed for the window sills, detached shafts, moulded parts of chimney-heads, and in other situations where brick is not desirable.

To prevent damp rising in the walls the following mixture was laid on them at the level of six inches above the ground-line, viz. 5 pails dry washed sand, 2½ pails lime, 4½ pails gas tar, 4 lbs of pitch, and 1½ lbs tallow, boiled together for four hours and laid on hot.

The whole external woodwork is constructed of Moulmein teak, well varnished; all the internal woodwork of best Baltic timber. This beautiful and expensive teak was adopted for the external work in preference to oak (than which it is more expensive and more difficult to work), on account of its fine colour, its durability, and non-liability to warp and split though long exposed to the influences of the weather.

The roofs are first covered with Croggan’s patent asphalted felt laid upon rough boarding, and then slated with Cumberland slates of a delicate green colour,
having ornamental bands and figures executed in darker shades of slate. The ornamental ridges are of Staffordshire blue tile. All hips and valleys are covered with 6 lbs. lead. The eave-gutters and rain-water pipes are of cast-iron.

All the windows are casements, glazed with heavy crown-glass, and made to open outwards, checked to prevent the ingress of the weather, and secured by a purposely designed fastener, which serves as a stay bar when the windows are open, and secures them effectually when they are shut.

The whole of the work is executed with an amount of care and finish such as is seldom bestowed on buildings of a much more pretentious description.

The group of buildings, of which the one under review forms but a small part, having been erected with a view to the decoration of the margin of Miss Coutts' pleasure-grounds, and at same time of providing cottage accommodation of a superior description, and as the materials and workmanship are of the very best description, the cost has been considerable. It therefore offers no criterion for the cost at which a cottage of the same design and dimensions could be erected in a substantial but more ordinary manner.

We illustrate this example by plans of the ground and chamber floors, elevations of each front, a general section, taken on the dotted line marked A B on plans, and a perspective view of the exterior from the north-east. Also a sheet of details, by which the construction of the many ornamental features, such as the porch, gablets, barge-boardings, chimney-stalks, and casements, may be clearly and distinctly understood.
SEYMOUR LODGE,
COVE, LOCH LONG.
A. & G. THOMSON, ARCHITECTS, GLASGOW.

PLATES XII.—XV.

THIS house is situated at Cove, a pleasant sea-side resort on the east shore of Loch Long, near its junction with the Firth of Clyde. It was erected in the year 1850. The site of the building is a portion of the narrow belt of level ground between the road along the beach and the high rocky bank which forms the ancient coast line. This bank is adorned with natural wood, and completely shelters and shuts in the lower level from the east, whilst a beautiful and extensive view of the Loch and the Firth presents itself to the west, north-west, and south-west. The prospect to the north and south is partially confined by the adjoining villas and the planting connected with them.

The plans and general design are arranged to suit the limited nature of the site. The block plan is nearly a true square, with a wing containing the kitchen accessories attached to the one end, and a projecting porch to the other. The extent of frontage is thereby increased, and provision made for placing the house nearer to the bank than it could have been had the kitchen accessories been projected behind. By this arrangement the limited breadth in front available for pleasure-ground is economized, and its proportions considerably improved. The entrance is placed at one end so as to keep the approach away from the windows of the sitting-rooms, and these rooms are provided with large windows which fully command the view seawards.

GROUND FLOOR.—The projected porch is provided with double doors. The lobby is 5 feet 3 inches wide, and is lighted at the end by a large mullioned window filled with stained glass. This floor contains a parlour and dining-
room to the front, with the staircase to the upper floor, having a pantry underneath it, and to the rear two good bed-rooms and kitchen. In the wing, which is entered through the kitchen, there is a servants' bed-room, wash-house, larder, coal-cellar, ashpit, and servants' closet.

The Upper Floor contains a drawing-room placed over the dining-room, three good bed-rooms, one small room, and two commodious closets.

The style of the design is an adaptation of the later Gothic, and of a somewhat more ornamental character than usual in houses of this size. The interior finishings are substantial and handsome, and carried out in the same taste as the exterior.

The external walls are built of rubble; the corners, upper course of base, jambs, soles and lintels of openings, and all moulded and splayed parts, are of dressed freestone. The outside steps and chimney-shafts are also wrought in dressed freestone. The rubble is of gray schistose rock found in the immediate neighbourhood. The freestone employed is from Inverkip, on the Firth of Clyde, distant by water about seven miles. The partition walls of the principal floor are of brick; and those of the upper floor of standards and lath. All external walls are lathed on the inside.

The height of ceilings of the principal floor is 11 feet 6 inches. The ceilings of the upper floor are partially campeceiled, and have a height of 11 feet in the drawing-room and 9 feet in the bed-rooms.

The sleeper joists of ground floor, safe lintels, wall plates, dooks and all external wood work, are of American red pine; the flooring of dram battens. All the other wood work is of American yellow pine—that for the internal finishings being carefully selected.

The roofs are covered with under-sized West Highland slates, having bands of slates, arranged diagonally, or in diamond form, to give variety and lightness of appearance. The cave gutters and roof valleys are lined with lead, and the chimney-stacks have lead flashings raggled into the stone-work, and pointed with cement. The flashings at kitchen wing and porch are of zinc. The ridge cresting and ridge tiles, as well as the balcony railings, are of cast-iron, made to designs by the architects.

The windows of the front are formed in casements, and glazed with plate-glass. Since that material has been so reduced in price as to permit of its
being freely used, shutters, as a means of security, have been considered less necessary than formerly. On the front windows of this house they are therefore dispensed with, and taking advantage of this circumstance, mirrors are inserted at each side of the dining-room window in the spaces usually occupied by shutters. This contrivance gives an agreeable effect of lightness, and reproduces the pleasing external view inside the room.

The front of the parlour is one continuous window. While the cooling properties of such an amount of glass might be objectionable in a house to be occupied in winter, in this house, which is only occupied during the summer months, it is found advantageous, and the parlour, from its cheerfulness, is quite a favourite room.

The staircase landing on the upper floor has a flat ceiling formed into panels by wood work and filled with coloured glass, through which the light is transmitted from the large sloping window shown in the rear of roof.

The cost of the building was as follows:—

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mason Work, Bricklayer Work, and Digger Work (estimated)</td>
<td>£450 0 0</td>
</tr>
<tr>
<td>Carpenter, Joiner, and Ironmongery Work, including Glass and Glazing</td>
<td>333 6 43</td>
</tr>
<tr>
<td>Slater Work</td>
<td>35 10 0</td>
</tr>
<tr>
<td>Plaster Work</td>
<td>45 5 10</td>
</tr>
<tr>
<td>Plumber Work</td>
<td>45 8 6</td>
</tr>
<tr>
<td>Iron ridge and ornamental balcoies (estimated)</td>
<td>21 9 0</td>
</tr>
<tr>
<td>Marble Chimney-pieces for three Rooms</td>
<td>21 0 0</td>
</tr>
<tr>
<td>Bells and Bellhanging</td>
<td>14 5 0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£966 4 81</strong></td>
</tr>
</tbody>
</table>

The exact cost of the first item stated above has not been preserved, but its place is supplied by an estimate derived from prices that prevailed in the locality at the date of building. The balcony railings shown on the Plates are on a more recently constructed villa in the same locality, those on this house being of a much plainer pattern. The price given is for the more ornamental design.

The statement of cost does not take cognizance of additions made to the house at a later date, and which are not shown on the Plates.

This building is illustrated by plans of the ground and upper floor, and elevations of the four sides; also by two sheets giving full details of the masonry and of the external ornamental wood work.
N the year 1863 this house was erected at Trinity, a pleasant suburb of Edinburgh overlooking the Firth of Forth. It occupies a corner plot of ground at the junction of two roads, the land on either side of which is laid off in villa lots. The view right in front being thus somewhat confined, the architect has adopted an effective expedient for increasing the extent and cheerfulness of the prospect from the principal rooms by placing oriel windows on the external angles of the front. These are carried up through the chamber floor and roof, affording increased space in each of the bedrooms above, and terminate outside in small enriched gables, necessitating the hipping of the roof, which is managed with dexterity and neatness.

The entrance porch in the centre of north front is carried up through both stories, and treated in a manner very similar to the bay-windows, the central opening forming the door, and the side windows serving to light the hall and corridor. A glass door and screen is placed between the hall and corridor to prevent draughts.

The Ground Floor contains a dining-room and drawing-room, each 18 feet 6 inches by 16 feet 3 inches, and each having a window in the west front, besides the oriel in the north-west and south-west angles of the rooms. The staircase, the steps of which are stone, is in the middle of the house, and is lighted from the roof by means of double lights, the interior one being on a level with the ceiling of upper floor. The ground floor also contains a parlour, kitchen, scullery, servants' bedroom, larder, coal-cellar, and closets, all of good size and conveniently placed.
The Chamber Floor contains four large-sized bedrooms, two smaller bedrooms, one dressing-room, a bath-room, and several large closets and presses, all compact and convenient in arrangement without loss of space or sacrifice of comfort. Several of the bedrooms are entered from sub-lobbies, thus affording additional privacy; and all the doors are so arranged that in opening they cover the positions of the beds.

The fireplaces in principal rooms are on the same side as the entrance doors, and nearly all the others are placed in the internal walls, an arrangement very conducive to comfort and economy of fuel.

The two principal rooms have a clear height of 11 feet 9 inches, the parlour, bedroom above it, corridor, and kitchen 10 feet 9 inches, and the other bedrooms, except the one over scullery, 10 feet. Part of this height in upper floor is gained by raising the balks or ceiling joists three feet higher than the wall-heads, as shown in the section, Plate XVII.

The whole external walls are built of the best freestone rubble 2 feet thick, all partition-walls on ground floor, and those immediately over them in upper floor, are built with well-burned bricks, the remaining partitions being composed of wood standards lathed on both sides.

The north, west, and south walls are faced with well-squared hammer-dressed sneaked rubble, the joints pointed and drawn with a key. The corners, jambs of windows, and of doors, are executed inband and upstart, the former being 16 inches square on bed and 8 inches thick, the latter 8 inches square on bed and 18 inches high. The ingoing faces at openings, the soffit of lintels, and top of sills are polished, whilst the external faces of all stone dressings on corners and round windows and doors are left rough, projecting an inch, having a tooled margin wrought all round, the face of margin being projected ¾ inch beyond face of wall. The manner in which these stones are wrought and built, with the corbelling out of upper part of oriel, and the framing of projecting roof and gables above, is clearly shown in Plate XVII.

The stone employed for the body of the walls is from Craigmieith Quarry, and all the stones for dressings of doors, windows, corners, and base course are from Hailes Quarry, both of which are in the neighbourhood of Edinburgh. All external walls are strapped and lathed on the inside for plaster.

The timber used for all safe-lintels over openings, and for sleepers, joists,
roofing, and other carpenter work, is of the best Swedish red pine; the flooring, slate boarding, and linings are of Swedish white-wood; and all internal finishings of doors, windows, &c., are of American yellow pine.

The windows of the sitting-rooms are glazed with plate glass, those of the bedrooms with 21 oz. sheet glass.

The roof is covered with best Welsh (Port Dinorwick, 14 inches by 8 inches) slates, having every third course, and all the slates on gables, double-nailed. The gutters, eave-runs, conductors, ridges, &c., are all of zinc, weighing 20 oz. per square foot; the ornamental ridge cresting is of iron, and the chimney-cans are of fire-clay.

The floor of entrance hall is laid with encaustic tiles, and the three sitting-rooms and four of the bedrooms have chimney-pieces of enamelled slate.

The accounts of the various tradesmen show the cost of this house to be as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digging, Mason, and Brick work</td>
<td>£555 6 6</td>
</tr>
<tr>
<td>Carpenter and Joiner works, including Ironmongery and Glazier work</td>
<td>452 8 0</td>
</tr>
<tr>
<td>Slater work</td>
<td>51 10 0</td>
</tr>
<tr>
<td>Plumber work</td>
<td>56 0 10</td>
</tr>
<tr>
<td>Plaster work</td>
<td>69 11 5</td>
</tr>
<tr>
<td>Bellhanging work</td>
<td>14 12 0</td>
</tr>
<tr>
<td>Gasfitting work</td>
<td>12 0 0</td>
</tr>
<tr>
<td>Encaustic Tiles</td>
<td>5 0 8</td>
</tr>
<tr>
<td>Enamelled Slate Chimney-pieces</td>
<td>20 5 0</td>
</tr>
</tbody>
</table>

£1236 14 5

The cost of the ornamental ridge cresting is not included in the above.

This house is illustrated by plans of the ground and bedroom floors, plan of roof, and elevations of three of its sides; also by a general section, a large scale-plan and elevation of the oriel, with enlarged drawings of the corbelling above entrance-door, and of the cantalivers and ornamental framing at gables. The south front, which is not shown, may readily be made out from the other drawings. It presents a gable in centre portion over projection at kitchen, having one window on each floor under centre of gable, the left-hand corner of this front being terminated by the angle oriel of dining-room, and the right-hand corner by the lower roof over scullery, the side of that roof being seen in this elevation.
CRAIG AILEY VILLA,
NEAR KILCREGGAN, FIRTH OF CLYDE.
A. & G. THOMSON, ARCHITECTS, GLASGOW.

PLATES XVIII—XXI.

CRAIG AILEY VILLA is situated on the extremity of the point formed by the junction of Loch Long with the Firth of Clyde, at a height of about eighty feet above the sea, and two hundred yards distant from the beach. It was erected in the year 1850, and though but a small building, from the prominence of its position it forms a striking object when viewed from passing steamboats, from which its varied outline and picturesque masses, seen against the sky, tell to much advantage. The house faces the south, and commands an extensive and lively prospect, embracing the whole range of the Firth of Clyde, with its busy traffic, from Gourock on the one hand, and the opening of Loch Long on the other, to where it is closed in by the distant islands of Bute, Cumbrae, and Arran.

This house being only a summer residence, space has been economized as far as possible in its internal arrangements, but without curtailment of the accommodation requisite for a family of moderate means.

The building is elevated on a base of rustic work, and the entrance porch is reached by a broad flight of ten steps, which are flanked by piers and parapets. The main door is made to fold back against the side walls in two halves of two leaves each, and is kept back during the day, so that the glass door immediately behind it is the entrance door in constant use. The vestibule is abundantly lighted by a group of five round arched windows in the south wall, and opens directly upon the hall and staircase, which are well lighted from the vestibule, and by a staircase window. The porch and vestibule combine effectually to protect the hall from draughts.
From the hall, a door in front opens to the dining-room, which is lighted by a large triplet window in the east wall, and a door on the left opens to the drawing-room, which is lighted by a large semicircular oriel in the south wall; another door on the left side of hall opens on the passage to kitchen, which leads also to the offices and kitchen court. These offices consist of a wash-house, servants’ bedroom, larder, coal-cellar, root-house and ashpit, and form a wing attached to the west side of the house, giving increased length of front, with more importance and variety to the exterior.

The upper floor contains three large bedrooms, one smaller bedroom, one dressing-room, a bath-room, and several closets and presses. From the stair landing a trap-stair conducts to a belvidere or smoking-room in the upper floor of tower.

The base is built of large rough stones set on end, producing a character of work suggestive of a repetition of the stratified cliff, near the brink of which the house is placed. The external walls are of rubble, built in irregular courses, and carefully pointed with a mixture of lime, smithy ashes, and oil, the joints being drawn in with a key, and afterwards painted with white lead. The surfaces of the rubble work are those formed by the natural cross cleavage of the rock without further manipulation. The dressings of windows and outside doors, external corners of walls, string and corbel courses, dado parts of chimney-stacks, and the shafts, arches, and frieze courses of oriel, dining-room, and vestibule windows, and steps, platt, and die-wall at entrance-door, are of freestone. The dressings round external openings, and on corners, are wrought with tooled margins, the face of the stone being hammer-dressed; all other dressings are tooled. The rubble is of schistose rock, found in the immediate neighbourhood of the site; the freestone is from Gourock, on the opposite shore of the Firth.

The masonry of base is 2 feet thick, increasing in thickness downwards. From the top of base to the line of upper floor the external walls are 1 foot 9 inches thick; above that line they are 2 feet thick, being projected 3 inches on a corbel moulding. This projection of the upper portion of the wall gives the effect of a string course by very simple means, and without presenting any surface on which water can lodge. The wall over oriel window is carried on two cast-iron beams of \( \mathbf{I} \) section, placed side by side, each beam 10 inches broad by 7 inches high, the sole-plate being 1\( \frac{3}{4} \) inch metal; the triplet-window of dining-room has also an inside cast-iron beam,
14 inches broad by 7 inches high, of \( \Pi \) section, the metal being of same thickness as the other iron beams. The internal thick walls are of rubble; the partitions on ground floor, with those in upper floor immediately over them, are of brick, the remainder being composed of wood standards lathed on both sides.

The safe-lintels, wall-plates, docks, window-grounds, joisting of principal floor, outside doors with their frames, window-cases and sashes, and the wood-work of projecting eaves, are of Quebec red pine. Joisting of upper floor, ceiling-joists, roofing, and all other carpenter work, are of Quebec yellow pine. The inside doors, with all internal wood finishings, are of selected American yellow pine. The flooring is of Dram battens.

The roofs overhang the walls 2 feet 4 inches, and are covered with large-sized Westmoreland slates, double-nailed; all the ridges and hips are covered with, and flashings round chimneys formed of, 6 lbs. lead, the latter being let into raggles cut in the stone work, batted with lead, and afterwards pointed with cement; the roof over oriel and the balcony are also covered with 6 lbs. lead. The ornamental parapet of balcony and finial of tower are of cast-iron, and the chimney-shafts of terra cotta. The antefixæ on oriel window, and acroteria on points of gables, are of red pine.

All the windows are glazed with sheet-glass in large panes, the sashes being hung in the usual way, with exception of that of stair-case, which is fixed, and those of tower and cellars, which are hinged.

The height of ceilings on the principal floor is 11 feet, and that of the bedroom floor 9 feet 6 inches. All the bedrooms on upper floor are partially campeced. Ventilation is provided for the space below the entrance floor by means of openings in the base, which have cast-iron gratings; and for the principal rooms by openings in ornamental composition placed over the doors.

This villa, on whichever side it is viewed, presents a finished exterior, each side varied in its outlines, and well balanced in its masses. It affords a good example of the capabilities of the Italian style, and how that style may be made to combine modern requirements, such as large and numerous windows, oriels, balconies, &c., with graceful forms and picturesque grouping. There are features also in this building which at the time of its erection were considered novel, such as projecting the oriel to an extent greater than a semicircle, so as to embrace a more extended view than the ordinary semi-circular or semi-octagonal.
forms of window; the great projection of the roofs, the character given to the eaves and gables, and the recessed arcaded grouping of the other windows.

Objections are often urged against roofs of so low a pitch as those of this villa, but the experience gained by this house, standing as it does in a very exposed position, goes far to prove that such roofs really require less repair than those of a steep Gothic pitch. Whilst roofs of the latter form on houses similarly situated in the immediate vicinity of the one under consideration have been often damaged by the severe gales to which this coast is exposed, those of this villa have now stood for a number of years without requiring any considerable repair. The great projection of the roof is found of material advantage in protecting the walls and preserving them water-tight.

Appended is an abstract of the cost of this villa, made up for the most part from the accounts of the tradesmen; the particulars, however, to which the word say is prefixed have not been preserved with exactness, but it is believed that the sums set down for them approximate very nearly to the truth.

**COST OF BUILDING.**

<table>
<thead>
<tr>
<th>Work Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mason and Brick work, including Iron Beams</td>
<td>£500</td>
</tr>
<tr>
<td>Carpenter and Joiner work, including Glass and Glazing</td>
<td>363 4</td>
</tr>
<tr>
<td>Slater work</td>
<td>say, 55</td>
</tr>
<tr>
<td>Plumber work</td>
<td>say, 86 18 8</td>
</tr>
<tr>
<td>Plaster work</td>
<td>49 4 5</td>
</tr>
<tr>
<td>Painting and Paperhanging</td>
<td>say, 51 19 4 1/2</td>
</tr>
<tr>
<td>Marble Chimney-pieces</td>
<td>say, 20 0 0</td>
</tr>
<tr>
<td>Bells and Bellhanging</td>
<td>say, 8 10 0</td>
</tr>
<tr>
<td>Stair-railing and other Ornamental Iron work</td>
<td>say, 20 0 0</td>
</tr>
<tr>
<td></td>
<td><strong>£1154 10 6</strong></td>
</tr>
</tbody>
</table>

This house is illustrated by plans of both floors and elevations of three of its sides, and by a perspective view, in which the side not given in elevation is well shown; also by two sheets of details, by means of which the ornamental portions and peculiarities of construction may be fully understood.
DOUBLE VILLA,
AT DERBY.
HINE AND EVANS, ARCHITECTS, NOTTINGHAM.

PLATES XXII. XXIII.

Only one of this pair of houses has been as yet erected, namely the one shown in Plate XXIII. The two plates, together, sufficiently serve to illustrate either villa, as well as the complete design.

The site for this double villa is at the outskirts of Derby, and on the Osmaston Road. The house erected was built in 1864. The front that is called south has a south-west aspect; and it looks to the handsome church recently built by the General Baptists; from which it is divided by a road leading to the minister's residence. The aspect, being that of driving rains, would not be selected in a case untrammelled by particular conditions, such as the tempting opportunity of a prospect. The soil is gravelly.

The general decorative character of the building is Gothic; though the outline is not dissimilar from that of the English country-house of the early part of the seventeenth century. In the windows, however, the area of opening is not reduced by mullions; and there are sliding sashes, with plate-glass. The heads of all the openings, excepting those of the principal windows, are semicircular or segmental.

The arrangements of plan in the erected building, and in the house that is only designed, are identical, or are merely reversed; and the description of one house will suffice. The rooms are arranged in two stories, as regards the front portion of the building, and in three as regards the rear; a portion of the upper story in the latter case being in the roof. The main entrance is in the side front.

Ground Floor.—An entrance-hall of ample dimensions, and having a fire-
place in one angle, has the doors of the dining-room and drawing-room leading out of it, as well as a door to a lobby of entrance, under the stairs, to the kitchen. Attached to this lobby is a small pantry. A scullery is attached to the kitchen; and it has a fire-place, and a door into the yard. In the yard are the usual conveniences and a wash-house, the latter forming part of the scullery-building. The stairs are carried up from the entrance-hall within an arcade, as shown in Plate XXII. in a section taken through the entrance-hall. Another section, on the same plate (but reversed, so that it refers to the other house), shows the stairs themselves, and the provision for head-way. A china-closet is placed at the foot of the stairs. The height of this story is 11 feet from floor-line to ceiling.

**Upper Floors.**—There are six bed-rooms. Four of these rooms, with a bathroom and a W.C., are on the one-pair floor. There is no loss of space; and the bulk-head in one of the bed-rooms would scarcely, if at all, interfere with its use. The clear internal height here is 9 feet. There are two bed-rooms in the attic: the height of these is 9 feet 6 inches in the centre, and 6 feet 4 inches from the floor to the slope of the roof.

The general material of the walls is brick. Red brick, dressed, is used for the facing, excepting the strings and cornices, and the voussoirs of the arches, which are formed with dark blue Staffordshire bricks. The external walls, which are 11 inches in thickness, and the same throughout their height, are built with a cavity of 2 inches in the centre; whilst the two thicknesses, of 4½ inches each, are bonded together at every fourth course with a *header*, of 9 inches, which has a cut-brick to fill up the remainder of the 11 inches, that is to say, 2 inches at the face of the wall. The piers and jambs of the windows, the labels, copings, and finials, and some other parts, are of Derbyshire stone. The arrangement of the roofing is shown by a plan on Plate XXIII. The timber-framing to carry the common rafters consists of little more than the purlines, with binders. The ridges are covered with Staffordshire creasing-tiles, laid with cement. The water from the central gutter is led away by a trough-gutter, which is shown by dotted lines. The spaces between the joists of floors, to prevent transmission of sound, are filled with concrete, laid on reeds. Memel timber was used throughout the floors, roofs, and partitions. The land-carriage of the materials amounted to from 1 to 3 miles.

It may be mentioned that, although there are no special contrivances
subservient to ventilation in these houses, the architects have induced the adoption, in houses in the same neighbourhood, of flues from the gas-lights, for the escape of the noxious products of combustion; together with flues for admission of fresh air, which is warmed in winter, in a chamber behind the fire-place, before entering the room—the combined arrangement being indeed perfectly well understood, albeit it is adopted only exceptionally, instead of generally, as it ought to be.

A fair statement of the cost of the one house, or the two houses, can scarcely be given. The accepted tender in 1863, for the pair of houses, (with architect’s commission added, but excluding boundary-walls,) was £1780; but the actual cost of the house erected was more than the half of that sum, by reason of alterations from the work as designed; which were required by the owner; but which may not have been improvements.
GATES AND GARDEN WALL,

AT COVE, LOCHLONG.

A. & G. THOMSON, ARCHITECTS, GLASGOW.

PLATE XXIV.

The gates and wall selected for this illustration inclose the grounds of Ferndean Villa, at Cove, and were erected in the year 1863. The decorative treatment is a free rendering of the Gothic style, but is more rustic than the character of the villa itself. The gates are made of red pine timber, with ornamental studs and spikes of iron. The principal gate is 12 feet wide; the wicket or part used by pedestrians being 4 feet, and consequently more light and handy than had the gate been divided into two equal parts. It is a common defect of gates divided in an unequal manner, that the weight of the larger leaf causes it to droop at its outer extremity. To obviate this, here, the piers have been proportioned in size to the weight which each has to carry. The pier to which the wider leaf of the gate is hung being much larger than its companion, its additional height permits of the back-stile being increased in length in proportion to the width of the leaf, and of the introduction of a diagonal stay from top of the back-stile to the bottom of the fore-stile. In this manner the hinges are relieved of undue friction, and the leaves come together with such precision that the latch and other fastenings are not liable to be displaced. Besides the apparent fitness of this plan, the line formed by the diagonal stay serves an important purpose in point of design, and has very much the effect of combining the gate and its piers into one firmly united group, thereby gaining dignity and force of expression. The smaller gate at the other extremity of the wall is simply the wicket of the larger one repeated.

The hinge on which the upper part of the wider leaf of the principal gate
is hung passes nearly through the larger pier. A foot within the masonry it divides into two extended arms, having eyes formed on them at the point at which they diverge, and also on their extremities. An iron rod two feet long passes vertically through each of these eyes, and the whole is securely built into the pier. The other hinges are fixed in a similar manner, but as they are subject to less strain the vertical iron rods are dispensed with.

The piers are built of whinstone rubble with mouldings and finials of freestone. The sweep of the wing-walls starting from the circle of the piers without any line of demarcation, together with the outline of the wall-coping continued round them, gives a pleasing effect of breadth and solidity. The wall is built in a clean and careful manner, the material being selected rubble of schistose rock found in the immediate neighbourhood, with coping of whinstone and arrowlets of freestone.

The ground falls away from the larger gate towards the smaller one to a greater extent than is shown in the drawings, and the wall is so treated as to present the appearance of a level line, while in reality it is not so. The descent from the higher to the lower ground is managed by a series of long steps having their upper surfaces slightly inclined in the direction of the descent, and the coping is broken upwards at intervals with arrowlets introduced under the raised parts, thus repeating in minor groups the general character of the stepped portion along the whole wall. By these means, as well as by its moderate height, the wall, while gaining in picturesque character, and having its continuity well preserved, gives an impression of greater extent and solidity than it would have had if its outline had been entirely plain.

The cost did not much exceed that of an ordinary rubble-wall, the price being 4s. 6d. per square yard, with the addition of 6d. per lineal foot for coping, and 3s. 6d. for each of the arrowlets. The cost of the gates was,—

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood-work of both Gates, including Painting and Varnishing</td>
<td>£12 16 3</td>
</tr>
<tr>
<td>Iron-work for both Gates, including Fittings in Piers</td>
<td>10 12 0</td>
</tr>
<tr>
<td>Piers and Wing walls for both Gates</td>
<td>23 8 3</td>
</tr>
<tr>
<td></td>
<td>33 11 8</td>
</tr>
<tr>
<td></td>
<td>£56 19 11</td>
</tr>
</tbody>
</table>
COTTAGE AT LUNDIN LINKS.
FIFE SHIRE.
J.C. WALKER, ARCHITECT
EDINBURGH.

FRONT ELEVATION.

PLAN OF GROUND FLOOR.

PLAN OF BED ROOM FLOOR.

FLANK ELEVATION.
COTTAGE AT LUNDIN LINKS,
FIFESHIRE.

JAMES C. WALKER, ARCHITECT, EDINBURGH.

PLATE XXV.

WITHIN about a quarter of a mile of the Lundin Links station, on the Edinburgh and Anstruther Railway, this cottage was erected in the year 1859. It faces the south, and commands an extensive prospect over the Firth of Forth and the Lothians.

Being a very small house, compactness of arrangement has been carefully studied, and the passages reduced to the least extent. The principal floor consists simply of two sitting-rooms, with a kitchen and its accessories. The entrance-lobby is lighted by a fan-light over the door, and the staircase is lighted from the roof. There is a closet under the stairs; and in the passage to the kitchen there is a descent of two steps, the kitchen floor being one foot lower than that of the principal rooms.

The chamber-floor contains two bed-rooms, exactly over and of the same dimensions as the sitting-rooms, with a bed-closet between them over the entrance-lobby. Two smaller bed-rooms are placed over the kitchen and scullery, on a lower level than the front bed-rooms: they are entered from the mid-landing of the stairs through a small lobby; where also is placed a water-closet, lighted and ventilated through the roof.

The height of the principal rooms is 9 feet 9 inches, and that of the bedrooms 9 feet 6 inches; but part of the height in the latter case is within the roof. The level of the ceiling of the rooms in the front of the house, as well as the levels of the floors, front and back, are shown on the end-elevation by dotted lines.

The external walls are two feet thick, and built of whinstone rubble.
obtained by breaking up the boulders strewn along the shore of the firth. The front-wall is faced with hammer-dressed stretchers, each 6 inches to 7 inches in depth, the joints of which are carefully pointed and drawn. The end-gables are faced with snecked rubble. The base-course, all sills and lintels, corners of walls, and jambs of doors and windows, with all corbel and moulded work at sides and over entrance-door, are of freestone from Grange Quarry at Burntisland, some eighteen miles distant along the coast. The corners and jambs are built "inband and upstart," or as "long and short work," the inband stones being 16 inches square by one course in height, and the others 8 inches square by three courses in the height; these and all other freestone dressings have a one-inch tooled margin all round their exposed faces, the remainder of surface being left rough and projecting 1 inch. By consulting the details of the Villa at Trinity (Plate XVII.) by the same architect, the treatment of the projecting gables and of the masonry will be exactly seen.

The timber in the carpenters' work, as joists, partitions, door-frames, roof-timbers, &c, and including the barge-boarding, cantilevers and dressed scantlings of projecting roofs and gables, as well as outside doors and windows, is of the best Memel red pine. The whole internal wood finishings are of the best American yellow pine. All the exposed timbers of projecting roofs are painted and varnished.

The roofs are covered with the best Westmoreland slates, each course having 2\(\frac{1}{2}\) inches of lap. The ridge-covering and eaves-gutters are of zinc, the cresting being of cast-iron; of which latter material are the rain-water down-pipes. The chimney-shafts are of terra cotta.

The cost of this cottage was as follows:

<table>
<thead>
<tr>
<th>Work</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mason's and Bricklayer's work</td>
<td>£184 0 8</td>
</tr>
<tr>
<td>Carpenter's and Joiner's work, including Ironmongery; also Glazier's work,</td>
<td>226 12 8(\frac{1}{4})</td>
</tr>
<tr>
<td>Slate's work</td>
<td>28 10 0</td>
</tr>
<tr>
<td>Plumber's work</td>
<td>29 6 4</td>
</tr>
<tr>
<td>Plasterer's work</td>
<td>23 3 7(\frac{1}{4})</td>
</tr>
<tr>
<td>Painter's work</td>
<td>6 1 0</td>
</tr>
<tr>
<td>Bellhanger's work</td>
<td>7 5 0</td>
</tr>
<tr>
<td>Enamelled Slate Chimney-pieces for two Rooms,</td>
<td>6 4 0</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td><strong>£511 3 4</strong></td>
</tr>
</tbody>
</table>
THREE Cottages are represented in this Plate. They were designed to form one group in general effect, and were erected in 1857, the site being in a wide street near the outside of the town of Thirsk. The end-cottages are precisely similar to one another in the internal arrangements and decorative features—the plans merely being reversed; whilst as regards the centre-cottage, there is somewhat more accommodation, with a different disposition of the rooms, and extra-height. The decorative character resembles that of the late Tudor style; but the effect is produced as much by the recesses and projections, on the ground, in the principal front, and by the gables, as by the mullions, chamfered jambs and window-heads, and other features of detail that may be more especially Tudor-Gothic. The main difference between one of the end-cottages and the cottage of the centre, arises from the latter having four bed-rooms, instead of three as in the other case, and having the ceilings of those rooms horizontal throughout,—thus there is the vacuity in the roof, rendering the bed-rooms more healthful and comfortable; and which is capable of being utilized for storage; whilst the end-cottages have a considerable portion of the height of their bed-rooms within the roof, so that the slope cuts off a portion of the space. The principal front of the centre-cottage is recessed, so as to allow of a flagged space between the wings formed by the ends of the other cottages. This arrangement is greatly conducive to effect, and is somewhat favourable to privacy; but it diminishes outlook: thus it might interfere with the value of a house for letting, as in sea-side watering-places, or wherever a wide range of prospect might be an important consideration.
GROUND Floor.—Each house has a sitting-room, a kitchen, a scullery with back-door leading out of it, and a pantry. The principal entrance to each of the end-cottages is at the side or end of the block of building. The stairs are in front of the entrance, and the sitting-room and kitchen doors on opposite sides of the lobby. The kitchen in the centre-house is less exposed to view; and the sitting-room is larger: the scullery is seen; but the whole space appropriated to offices might be shut off, if desired, by a door. The windows of the end-cottages project from the face of the wall externally: this arrangement allows of the insertion of shutters, in their boxings, in the recess which is formed internally (in place of the projection into the room), and also allows of the production of good features of effect. In the centre-cottage the recess is deeper than in the other cases: but externally the breadth corresponds with the substructure of the gable-wall itself. The height of the ground-floor rooms is 9 feet.

UPPER Floor.—In the end-cottages there are two bed-rooms with fire-places, and one room without; and in the centre-cottage there are three rooms with fire-places, and one room without. The height of the rooms is 9 feet—that is to say, only in the highest part for the end-cottages, whilst throughout in the other case.

The external walls are of brick; and the same material is used for the string-courses and edges of gables, where the bricks are set angle-wise, and for corbels to the gables and chimney-shafts, and other decorative details; some of which are shown in an enlarged drawing, with one of the chimney-stacks. Arches are turned over all openings, entirely through the thickness of the wall; and, as well as the jambs, they are chamfered, as before mentioned. The windows have wooden mullions and transoms; and the glazing is in lead. The tops of the window-projections are covered with stone. The roof is covered with plain-tiles. The usual provisions to prevent rise of damp in the walls, as by a course of slate, were made. The building was in part constructed of old materials: a precise statement of the cost, useful for any future case, cannot therefore be here given. Perhaps, in the locality, such a building as this group of cottages, with new materials, might have cost, in the year 1857, some amount between £700 and £800.
ACCORDING with what has been a common custom of name-giving attending that growth of the British Metropolis to which the speculative builder is one of the chief contributors, the designation park is applied in many cases where present appropriation of the ground leaves the term justifiable chiefly from a lessor's point of view. Tufnell Park, where is situate the house represented in these plates, and which forms a small portion of Holloway, one of the northern suburbs of London, is still almost what it was many years ago, or what its name would imply: indeed the park-like character has been in great measure retained. But there is in fact this characteristic of the “Park” as generally it is in the more thickly populated suburbs of London, that most of the houses are detached, or semi-detached; moreover, each house or group has commonly a lawn or garden, with entrance-gates and carriage-drive, in front; whilst trees or shrubs at the sides help to complete a picture: thus, although the distance between the groups may allow of mere passage-way from front-garden to back-garden, there is an element of effect which is of importance to architecture.

Where the houses are built for the occupation of the owners, it is becoming somewhat more than it was, the practice to employ an architect; so that it is now possible to find in the London-suburbs, many houses of tasteful character. Contemporaneously with the manifestation of the latter requisite of architecture, there has been a movement in style, affecting indeed a portion only of the number of houses, but still to be distinguished now that the features of change introduced have become of the nature of accomplished fact. In this movement
Mr. Truefitt, the architect of the Villa-Careno, has been a not unimportant worker. The character of the architecture of the class referred to may be said to be a compromise between the previously and yet rival manners, known by the names of two old styles, the Tudor-Gothic and the Italian. The high-pitched roof and the gable of the former are used in preference to the low-pitched roof and the pediment; but lead-lights in stone mullions are resigned in favour of plate-glass in openings of ample width for outlook, mullions being either dispensed with or formed of wood. More or less erroneous use of precedent on the one hand, and more or less disadvantageous seeking for novelty on the other, may be observed in architecture of this class; forms that are uncouth, as some of those of pointed arches to doorway and window heads, are used because they are Gothic; but the style claims the notice that we give to it here, as well because the building that we illustrate will be the better understood, as because the reader may be interested in being reminded of the relation which an example has to the architecture of its day—relation that is not always so easily as in this case to be perceived.

Villa-Careno was erected in the year 1865. Whatever the peculiarities of detail, the design has considerable effect from grouping; and to this the arrangement of the roofs contributes. The building is divided into two masses: one of these, the principal block, has two stories in height above ground, besides rooms in the roof, and has grouped with it a prospect-turret, partly of timber construction, over a porch which has a high pyramidal roof-capping; whilst the accessory block is of two stories (excepting as to the staircase, which is three)—a small portion of the upper story of the two in this case, also being in the roof. The arrangement of the roofing will be understood by a comparison of the view (Plate XXVII) with the plans (Plate XXVIII). The "Plan of Second Floor" necessarily shows the apex of one of the three spans of roofing cut off, where the top of the staircase is. The curiously shaped white spaces represent the valley-gutter between the roof-slopes. There is a considerable descent in the ground from front to back of the house; and the rearward portion of the house is cellared, for storage of coals, wood, beer, and wine, and for the principal larder. There is no external doorway, be it observed, to the basement. Personal views of the owner who intends to be occupant of a house, as to what are requirements, must guide an architect in many particulars.

Ground Floor.—The principal entrance to the house is in the main front.
within the porch, in which latter is a seat. The library and the dining-room lead out, on opposite sides, from the entrance-hall, which is 6 feet in width. At
the end of the hall are, to the left, the staircase, and the passage-way to the side
entrance—the kitchen door opening out of the passage; whilst on the right is
the drawing-room door. The dining-room and drawing-room have each a bow-
window, as well as a window in the side of the house; and the centre-light of
the drawing-room bow is arranged in connection with steps of descent to the
garden. (See the Elevations, Plate XXVII.) Grouped with the kitchen are
a scullery,—containing a copper and sink, and from which is the way down to the
cellars,—a second larder, and a pantry. The pantry is lighted from the scullery
through a glazed screen, the middle support to the shelving being of lattice-work.
The kitchen-dresser is in a specially contrived recess. The W.C.s are under the
stairs; the servants’ closets being entered from outside the building, and the
principal W.C. being lighted by a window which is over the door of the ser-
vants’ closet; so that there is ventilation, though the plan does not show it. The
height of the two principal rooms of the ground floor is 12 feet.

CHAMBER FLOORS.—On the first floor there are five bed-rooms, one of them
of small size; there is a dressing-room between and communicating with each
of the principal bed-rooms; and there are also a bath-room, a linen-closet, a
W.C., and a sink; whilst in most of the bed-rooms there are cupboards. The
ample lighting of the staircase merits notice. The height of the rooms on this
story is 10 feet. The slight difference of level of the floors of the principal
rooms and the others is indicated by the steps which are shown. The upper
floor has two large attic-rooms, lighted partly by dormers, and partly by windows
in the gables; and there is also a box-room (erroneously called bed-room on
some copies of the engraving) lighted through a sheet of glass in the slating.
In their highest part these attic rooms are 8 feet 6 inches in height. In the
turret, at this level, there is a large cistern; and there are also the steps which
lead to the lantern story.

As regards the materials and the construction of the house, the external
walls are built of ordinary bricks ("stocks"), with "seconds" (malina) for facings,
the thickness being one brick and a half throughout the height of the building.
The partitions that are not framed of timber—"quarters," or the greater number
of those in the house, are of bricks in cement, half a brick for the thickness.
As will be seen by the drawings, stone is very little used for decorative effect.
The chief use, irrespective of the window-sills—which latter details we might have named as amongst those wherein Gothic precedent has been advisedly deviated from,—is for the copings to the corbie-steps, and for the hip-knobs of the gables. The arches to door and window heads are of red brick, the outer *ring* of "headers" (or bricks showing their ends) being in all the cases whole bricks. The dark-toned bands also are of red brick, contrasting with the buff colour of the main portions of the fronts. The roof-covering is of slate, with the same material for the ridges and hips. All the valleys, gutters, and flashings are laid with 21 oz. zinc. The lantern-stage and roof-framing to the turret are of timber. Sliding sashes, or double-hung, with plate-glass, are used generally for the windows; but in the principal rooms there is a peculiar formation of the upper part of the window for ventilation: for explanation of this the plates must suffice. In the drawing-room, however, there is a French casement, or glazed door, where required, for one opening; and the window at the side is similarly provided. The ornamental rain-water pipes and eaves-gutters are all of iron. These, with other ornamental iron-work shown in the drawings, were designed by the architect, as well as the marble chimney-pieces. Also specially designed were the details of joiner's work, as doors, architraves, and skirtings; in some of which good effect is produced by simple means.

The original contract, which was in one sum, for the structure, was £1850; but including the bath, the painter's and paperhanger's work, and the bells (together with a stable for two horses, a chaise-house, and garden-walls—not shown), the total cost has been exactly £2306, 11s. 11d. This is exclusive of gardener's work.
VILLA AT GRANGE,

EDINBURGH.

R. THORNTON SHIELLS, ARCHITECT, EDINBURGH.

PLATE XXIX.

This House was erected in the year 1862. It is situated in Dick Place, a range of villas and cottages on the Grange estate, at the southern outskirts of Edinburgh. The entrance-front has a southern aspect, and commands a view of the Braid Hills. The soil is a rich loam, on a clay bottom, with a substratum of freestone.

The house is designed for a moderate scale of requirements, having but two sitting-rooms, and five bed-rooms, but with complete provision in the offices for all the wants of a small unostentatious establishment. The rooms are arranged upon a nearly square area of ground, with a little one-story addition for a portion of the offices; the upper story of the main block having a small dimension of its height taken out of the high-pitched roof.

The decorative character of the design is Gothic, and Continental in kind,—hipped ends to the main roof, and to the dormers, being preferred to gables, and small pillars or shafts to mullions where the openings are divided; and metal-work finials and cresting being prominent. Amongst the other features made decorative are a porch, and the eaves-guttering. The general masonry is coursed rubble-work, random-dressed; whilst the quoins, window-jambs, and reveals, are of rubbed stone. Each angle in the principal front presents, in the lower story, a small engaged pillar; whilst in the upper story, the angle is chamfered off. Over the first story there is a band of red-coloured stone, producing the effect of a string-course, and forming discharging arches over the windows. The porch is raised on stone plinths, each side, for the pillars, which latter are
of Baltic red-deal, having moulded capitals and bases of the same material; the whole arrangement, with the decorative character of the roof, being well shown separately in a perspective view. The plate also shows some other portions of the front, enlarged.

Ground Floor.—The front-entrance gives access to a small vestibule, whence an inner door leads to a lobby, 5 feet in width, on the opposite sides of which are the dining-room and parlour. Each of these rooms has its windows to the front, and has the fire-place in the end or external wall, with a shallow closet on one side. At the end of the lobby is the staircase; which is well lighted from the two-light window which is shown in the chamber-plan. Beyond the dining-room and parlour are the servants’ bed-room and the kitchen; which latter are connected by a lobby under the stairs. The way into the kitchen from the main lobby and staircase-hall is through this lobby of service; so that the portion of the house containing the offices is shut off from the living-rooms, whilst conveniently near them. Attached to the kitchen are a scullery, a pantry, and a place for coals; and under the stairs is a store-room, or place suitable for a cask of beer, entered from the service-lobby. The scullery contains, besides a sink, a copper, and fixed washing-tubs, with hot and cold water. The rooms on this floor are 12 feet in the clear height. The principal rooms have well-relieved, effective, cornices. The floors of the porch, vestibule, and principal lobby are laid with Maw’s encaustic tiles, and the porch has a skirting of the same material. The kitchen is paved with Arbroath stone. The stairs are of stone, with iron balusters ornamentally treated, and hand-rail of polished oak.

Chamber Floor.—Here, besides three bed-rooms, there are a bath-room, a “napery,” or store for towelling—attached to the bath-room; a closet for clothes, or for stores of a different kind; and a W.C. The bath-room and closets, and the second bed-room, are entered through a lobby; so that this part of the house may be shut off from the staircase and other rooms—an arrangement that is very conducive to convenience. The bath-room has a fire-place, and a fixed basin-stand, with a supply of hot and cold water, besides the bath. The height of these second-story rooms is 10 feet in the clear. What is taken out of the roof appears as a cove to the ceiling, of about 14 inches in height. The lights of the staircase window—semicircular-headed—are filled with stained glass.

The masonry of the external walls, already referred to, is constructed of a
VILLA AT GRANGE, EDINBURGH.

37

close-grained stone from the Binny Quarry, about seven miles distant. It was thought that this stone would be more economical for use, in the case of a small building, than stone quarried from the site itself; although for some of the larger villas on the Grange estate, the latter material had been used advantageously. The general roof-covering is of slates, some of these slates being cut, and disposed in courses, as shown. The ornamental flashings to the dormers are of lead; and the eaves-guttering and brackets, and the finials and cresting are of iron. In the interior of the building all the wood-work is of American yellow-pine, stained and varnished. The work has been well executed, and fortunately so; for on the material and execution of joiner's work that is not painted, everything depends.

Though of small size, and generally square on plan, this villa is certainly effective; whilst, it is stated, the cost has not exceeded that of common-place structures in the vicinity. Exclusive of boundary-walls, and laying-out grounds, and of some decorative fittings of the interior, the cost was as here given:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mason's work,</td>
<td>£350  0 0</td>
</tr>
<tr>
<td>Carpenter's, Joiner's, and Glazier's work,</td>
<td>271  8  3</td>
</tr>
<tr>
<td>Plumber's and Gasfitter's work,</td>
<td>66   0  0</td>
</tr>
<tr>
<td>Slater's work,</td>
<td>33   2  5</td>
</tr>
<tr>
<td>Painter's work,</td>
<td>50   0  0</td>
</tr>
<tr>
<td>Bellhanger's work,</td>
<td>11   0  0</td>
</tr>
<tr>
<td>Tile-Pavements,</td>
<td>13   0  0</td>
</tr>
<tr>
<td>Chimney-pieces,</td>
<td>24   0  0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£820 10  8</strong></td>
</tr>
</tbody>
</table>
SEVERAL houses of decorative "half-timbered" construction, somewhat similar in character to those erected from the fifteenth century to the commencement of the seventeenth, were built subsequently to the year 1845, in the suburbs or neighbourhood of London, from the designs of one architect, whose name appears in the heading of this page. The first of the buildings, at Mill Green, Essex, dating in the year mentioned, and designed for Mr. Charles Grant, forms the principal subject of Plates XXX.—XXXV. The plates also show an alternative design, fitted to the same general arrangement of plan,—brick and stone being substituted for timber- and plaster-work in the upper story; and, further, where details are represented in the detail-plates differently from corresponding parts in the elevations, they serve to indicate slight variations that were made in the houses erected. These houses from Mr. Kendall's designs, besides the Mill Green House, are at Childerditch, Essex; and Clapham Park; Turnham Green; and Victoria Road, Kensington,—all the three last in the London suburbs. They include a house, on a larger scale, on the site of Pope's Villa at Twickenham, and one at Farnborough Hill, near Aldershott: the latter, however, is recent. The alternative design is a version of that modern character of Gothic which has been called eclectic. The plans are the same, excepting that the overhanging of the upper story at one part of the erected building, shown by the section in Plate XXXIV., together with the similar arrangement for the gables, is omitted, that some of the windows are changed in position, and that the tower does not project so far. The alternative design is likely to be carried into effect in Hills Road, Cambridge,
Cottage Orne - Mill Green Essex

Entrance Elevation.

Alternative Design - Entrance Elevation.
Cottage Office, Mill Green, Essex.
COTTAGE-ORNÉ

39

on ground belonging to Gonvile and Caius College. Both designs are shown perspectively in Plate XXX., but from different points of view; though the entrance-front appears in each case. The following three plates show the three principal elevations of both designs, corresponding elevations being placed on the same plate. The terraced site, with grass-slopes and steps to the principal entrance, and to the window of one of the rooms which has access to the garden; the breaks in the exterior on plan, the grouping of the roofs, and the peculiar details, produce a picturesque effect that was so much admired in the first house erected, as to have led to repetition, or the repetition with the variations.

The house or cottage at Mill Green has a south aspect for the garden-front, the entrance being to the east. The soil is gravel. The rooms are arranged in two principal stories, a basement, and an attic in the roof. There are three living-rooms, a conservatory, and offices; and there are nine bed-rooms and a dressing-room, besides a bath-room and a house-maid’s closet, both in the upper part of the tower. The ground-plan and the first-floor plan are given on Plate XXXIII.

Ground Story.—The principal entrance is placed within a boldly projecting porch; which, as shown in the view, is reached from the landing at the top of one of the terrace-flights of steps, where the pathway round the building intersects. At the foot of these steps are ornamental lamps; and in Plate XXXIV, similar lamps are shown in connection with another front of one of the houses. Immediately within the entrance-door is a space recessed from the hall, for hats, cloaks, and umbrellas; and attached to this is a W.C. Next to the hat-and-cloak space, and entered from it, is a china-store, with a borrowed light from the scullery. The dining-room door opens from the left-hand side of the hall, and the drawing-room door from the end opposite the entrance: the staircase-hall opens to the right, and is lighted from above; and the library, which is at the end of the drawing-room, joined by folding doors, has its door in the staircase-hall. The dining-room has a large projecting window at the side, besides one at the end in the principal front of the house. Attached to the side of the drawing-room is a large conservatory. The kitchen and scullery are placed in a one-story addition (with “lean-to” roof) to the main block, broken in the centre by the tower; in the lower story of which last is a pantry, and the back-entrance to the house. The tower is connected with the staircase-hall. The kitchen and scullery are
separate from one another, but connected by a passage; out of which there is a door into the house, besides the way down to the basement, and that to the back-entrance. The principal rooms of this story are 12 feet 6 inches in the clear height.

Chamber Floors.—Including one small room in the tower, there are five bed-rooms in the first floor, and a dressing-room (as shown in our plate). In the attic-story there are four bed-rooms: two of these measure 25 feet by 11 feet each; one measures 20 feet by 11 feet, and one is 12 feet by 11 feet. The diminished breadths of these rooms in the roof, as contrasted with the rooms below, it need not be explained to the professional reader, result from the cutting off portions next the floor, by lathed-and-plastered partition-work, in order to get more convenient ceilings. In the alternative design the tower does not project so far as in the Mill Green Cottage, in the upper portion of it; so that there is one bed-room less. There is no W.C. up-stairs. The rooms on the first floor are 9 feet 9 inches in height; and the attic-rooms are 8 feet 9 inches in the highest part.

The Basement contains the wine-beer and coal-cellarage, a larder, a milk-room, and a stoke-and furnace-room for heating the conservatory.

The walls in the lower story of the house at Mill Green are constructed of brick-work, with Bath-stone heads and sills to the windows, and a moulded string-course, and a base-mould, also in stone. The facing is of red bricks, pointed with black mortar. The windows have frames with fir moulded half-mullions, backed by deal casing for the weights, the lights being fitted with ordinary sliding sashes. The principal chamber-story, as to the walling, is constructed partly of brick-work and partly of the timber and plaster work before referred to. There is a 9-inch brick backing, and an ornamental timber framing in front, securely fixed to the brick-work, and its members morticed and tenoned together. The timbers generally are 6 inches on the face, and 2½ inches in thickness. The edges at the back are chamfered off, so as to provide "key" to hold the plaster, which is laid on the brick-work. The square spaces between the windows of the two floors, in the Mill Green House, are filled in with castings in Medina cement, 1 inch in thickness, and ornamented in fanciful and varied patterns. These spaces may be filled with Minton's encaustic tiles, of different colours. The verge-beards of the gables are of fir, 2½ inches in thickness, moulded and perforated, and have pendants and terminals,—the latter of wrought and
cast-iron,—and all the patterns differing from one another. In advance of the upper windows are large moulded beams and brackets; whilst the attic-joisting projects so as to assist in getting the overhanging. The roofs are covered with plain tiles, with a serrated or engrailed ridge. The chimneys are of brick. The capping of the tower, the covering of the ridges of the dormers, the different hips, and the flat over the bay-window, the linings of the gutters, and the flashings, are of lead, 7 lbs. to the foot superficial. The porch is constructed in fir, on a brick base; and has the framing of the roof exposed internally. In the covering, ornamental tiles are used, alternating with courses of the plain tiles. The arceding of the sides of the porch is filled in with ornamental iron-work (Plate XXXIV.) All the external wood-work is painted, grained as old oak, and varnished. The parapet to the projecting window of the dining-room is of stone. The conservatory is constructed of fir, on a brick foundation.

In the alternative design, the general facing, or throughout the height, would be of the best malm-bricks, buff or light yellow in colour; whilst the decoration, exclusive of the stone-work, would be of bricks of deep red colour, with inter-mixture of Suffolk white bricks. The roof-covering is shown varied with courses of ornamental tiles; whilst the verge-boards are plainer than in the executed design.

All the external walls are battened internally. All the floors are boarded of 1\frac{1}{4}\text{-inch} yellow deal, excepting the floor of the basement, which is brick-paved, and excepting the floors of the conservatory, the porch, and the entrance-and-staircase halls, which are paved with Minton's ornamental encaustic tiles. The chimney-pieces generally are of Bath stone, and were designed for their situations. The staircase is constructed of fir, with an ornamental bannstrade, partly in wrought iron-work. The joiners' work, specially designed, included that of the interior doors (Plate XXXV.) The windows have boxing-shutters. The principal rooms have moulded skirtings, and enriched plaster cornices.

In the house at Farnborough Hill, erected for Mr. Thomas Longman, of the well-known publishing firm, the half-mullions of the windows are of teak. They are framed with a head, half-transom, and sill, all of the same material. The sill forms part of the external framing of the walls, to which the jamb-mullion is tongued. The sliding sashes are as usual; and the deal-cased frame in which they are fixed has a sill of its own, set upon the other. The bottom-rail of the top-sash, and the top-rail of the bottom-sash, at the meeting, are concealed.
externally by the half-transom, and internally by a facing in deal, which is elaborately moulded, to prevent what would otherwise be the appearance of heaviness. This description may suffice to explain what is one mode lately adopted with the object of reconciling the external effect of windows of the mediaeval character with the modern English arrangement of sashes.

We should mention that in the Mill Green Cottage, the water from the roofs is conducted from eaves-gutters, by external down-pipes, in the usual manner,—though the arrangement is not clearly shown in our plates. To the rain-water pipes in the more recent house, there are heads of highly ornamental character, the usual small overflow-shoots from the heads having somewhat similar forms to those of the stone gargoyles in old buildings.

The Mill Green Cottage was built, in 1845 as we have said, under a contract, the amount being £1400, excluding the tower and the conservatory. The tower cost £180, and the conservatory £250. Thus the total cost, at the prices of the time, would be £1830. The alternative design, considering the rise in materials and labour, will probably now cost an equal sum.

The drawings for these plates, and for the plate which follows, were reduced for the engraver by Mr. H. W. Lonsdale, a pupil of Mr. Kendall.

---

ENTRANCE GATES,

PLATE XXXVI.

This plate shows the gates which are attached to the house described above, and illustrated in Plates XXX.-XXXV., as well as the entrance that would be suited to grounds of the house of the alternative design, all the designs being by Mr. Kendall. The materials and construction will be sufficiently understood from the plate itself, or after perusal of the description belonging to the other plates.
KINGSMUIR COTTAGE,
NEAR PEEBLES.

DAVID COUSIN, ARCHITECT, EDINBURGH.

PLATES XXXVII XXXVIII

N a rising ground, called Kingsmuir, to the south-west of the pleasant little town of Peebles, this cottage was erected in the year 1855. The house faces the south-east, and commands a magnificent view of the vale of the Tweed and the surrounding country; diversified by hill and valley, glades and woodlands.

The entrance-door is sheltered by a recessed porch or verandah; entering which, and turning to the left, you pass through an outer lobby, or vestibule, which is lighted from the front, and separated from the inner lobby by a glass door with side-lights. On left of inner lobby is the drawing-room, lighted by a bay-window in entrance front; and beyond it the dining-room, having a projecting window in south front: opening out of the latter is a light store-closet. On right of lobby is a room suitable for either parlour or bed-room, as may be desired; which, also, is provided with a large closet. Entering on the left under the stair there is a water-closet, lighted from and ventilated by the roof; and on the right are the kitchen-offices, namely, kitchen, wash-house, coal-cellar, and servants' water-closet. A stair from wash-house leads to servants' bed-room over same. On the upper floor there are three bed-rooms and a dressing-room, with four large closets, besides the servants' bed-room having separate access as already referred to. The staircase and landings, as well as the lobby below, are well lighted by a large roof-light, which is shown in the section on line c d.

The height of ceilings in principal storey is 11 feet 6 inches. The height of bed-rooms in higher portion of building is 10 feet 9 inches, and in lower 9 ft. 6 in. All the bed-rooms being partially in the roof are to that extent camp-ceiled.
The external walls are of freestone from Musselburgh Quarry, distant by road about twenty-one miles. Where they are two storeys high they are 2 feet thick, and where only one storey 1 foot 9 inches. The walling is chiefly of rubble, squared at joints, and hammer-dressed on beds and faces, with quoins of tooled ashlar. The projection in front-gable, about and over bay-window, and also of the dining-room window, is of tooled ashlar, with rubbed reveals. The piers at verandah and the chimney-stacks are likewise of tooled ashlar. The principal stairs are of rubbed Arbroath stone, the steps having moulded edges. The floors of kitchen-offices are laid with tooled Arbroath pavement. The roofs are covered with gray slates from Glen-Almond, Perthshire, disposed in ornamental bands. The gutters, including those of eaves, the valleys, and chimney-flashings, are of 61b. lead. The ridges are covered with terra-cotta ridge-tiles and cresting, bedded in and pointed with Roman cement. The chimney-shafts are terra-cotta.

The roofing, wall-plates, joists, sleepers, bond-timbers, wall-battening, lintels, and beams, also the windows and other external wood-work, are of best Memel timber. The flooring is of Baltic white wood. The other internal wood finishings are of American yellow pine. The drawing-room and dining-room have moulded skirtings, framed and moulded shutters, window-backs, jambs, and soffites, and double-fascia door and window architraves. The bed-room windows have framed and moulded shutters and backflaps, and moulded door and window architraves. The windows of principal rooms are glazed with plate glass, the others with 21-oz. sheet glass. The three sitting-rooms have marble chimney-pieces.

The cost was considerably increased by the extent of land-carriage of materials. The particulars here given are from the tradesmen's accounts:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masonry and Bricklaying</td>
<td>£565 0 0</td>
</tr>
<tr>
<td>Carpentry, Joinery, Glazing, and Ironmongery</td>
<td>455 0 0</td>
</tr>
<tr>
<td>Plumbing</td>
<td>42 0 0</td>
</tr>
<tr>
<td>Slating</td>
<td>50 10 0</td>
</tr>
<tr>
<td>Plastering</td>
<td>49 0 0</td>
</tr>
<tr>
<td>Gasfitting and Bellhanging</td>
<td>31 19 0</td>
</tr>
<tr>
<td>Encaustic Tiles and Marble Chimney-pieces</td>
<td>20 18 0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£1194 7 0</strong></td>
</tr>
</tbody>
</table>
LANGSIDE, where, in 1856-57, this double villa was erected, is about two miles south of Glasgow, and adjoining what is now the Queen’s Park. With other lands adjacent to the Park the locality is becoming an important offshoot, or suburb, of Glasgow. The Langside lands consist chiefly of the pleasure-grounds surrounding the old mansion of that name, which are now laid out for building purposes, with drives formed through the woods and shrubberies. The views obtained from the more elevated portions of Langside are extensive and fine.

This building has a peculiarity of plan. While the two houses are exact duplicates of one another, their fronts are turned in opposite directions, an arrangement suggested by the site, which is one between two parallel roads, that provide approaches to each of the fronts. The effect of each of the fronts is that of a villa of good size, instead of presenting, according to the usual mode of arrangement, two small villas combined. In this way each house looks much larger than it really is, greater variety is imparted to the design, and greater privacy is gained for the occupiers of the houses, the front doors being on opposite sides, and the back doors at opposite ends, of the block. The front of the one house faces the east, and the other the west, and the views from them are equally good in both directions. The general character and detail of the design is an adaptation of the Greek.

On a limited piece of suburban land, too narrow for four rows of good houses, and too wide for two rows, such a plan as this may be found eligible. Were the land intersected lengthwise by two parallel roads, the outer sides of these
roads occupied by houses fronting inwards, and the space between the roads
by a series of semi-detached houses, arranged like this example at Langside;
the centre row facing as it would do both ways, would thus afford the means
of placing three rows of houses on the ground, without having the back of
any one of them turned to the front of the other.

Each house contains a dining-room, a drawing-room, a kitchen, three bed-
rooms, a servants' sleeping-closet, a bath-room, and closets, in two floors, within
the main portion of the area of the plan, or within a space which may be
roughly stated as about 33 feet by 31 feet; and has, as a one-story addition,
the ordinary domestic offices, and an inclosed court-yard.

GROUND STORY.—The entrance, which is at the top of a series of steps,
has double doors, the inner door glazed, and the outer doors hung folding so
as to be allowed to remain open by day. The inner door leads into a vestibule,
7 ft. 6 in. square, but having a large recess on one side, as well as a fire-place on
the side opposite. There is still an inner door separating this space from the
lobby and staircase. From this lobby there opens the door of the dining-room,
and of a bed-room that is on the ground-floor, as well as a sub-lobby leading
to the kitchen. In this sub-lobby is the door of a china closet. The dining-
room would measure 19 ft. by 16 ft.; but forming an addition to its space
is a projecting window, measuring 11 ft. in width, by 5 ft. 9 in. for the clear
projection or inside-depth. Opening from the dining-room is a store-closet,
6 ft. square. It forms part of the one-story addition to the block. The floor
of this closet is divided into nine compartments, which are made to lift, and
afford access to wine-bins that are formed in brick-work below. Attached
to the kitchen, similarly, is a small scullery, which has an entrance from the
court-yard. Also attached to the kitchen is a pantry; and over this and the
china-closet, reached by steps from the kitchen, is the servants' sleeping-closet,
10 ft. 6 in. by 6 ft. The remainder of the ground-floor includes, out of doors,
a convenient and well-lighted wash-house, a small larder, a shed for roots, a
place for coals, and other conveniences, the whole grouped around the yard
or court, through which is the back-entrance. The height of the principal
rooms on this floor is 12 ft. in the clear.

CHAMBER FLOOR.—Here are a drawing-room, 19 ft. by 15 ft., abundantly
lighted by a group of windows occupying the whole of the front and a portion
of the ends; two bed-rooms, having each a dwarf wardrobe-closet attached; a
small napery-closet; and a room containing a bath and W. C., which is lighted and ventilated by an opening above the wardrobe-closets. The general height of these rooms is 10 ft. in the clear; but the ceiling of the drawing-room is carried up within the roof-space, where the height becomes 11 ft. 6 in.; and gain of effect results. The whole of these arrangements will be clearly understood from the section (Plate XL.)

Reverting to the decorative character of the exterior, it may be observed, that, connected with the reversed arrangement of the houses on the ground, there is this advantage for effect, that the comparatively plain back of one house serves to enhance the richer front of the other, and to procure emphasis in one part of the composition. To conduce to this, there are certain variations of detail; some of which may be clearer in the perspective view than they can be in any elevation. The columnar character of the dining-room and drawing-room windows is relieved by the plain windows with broad wall spaces of the lower story, whilst its effect is repeated in a subdued manner by the five lights in a row forming the upper tier of windows. In the design of the porch the aim has been to harmonize and connect the two modes of treatment, by making it partake of the richness of the one and the simplicity of the other. The one-story offices at the ends serve to grade the higher mass to the level which is lowest of all, namely that of certain inclosure-walls and terraces, and to the ground itself.

As to the construction: the external walls, which, for the main portion of the structure, are 2 feet in thickness, are built of free-stone from Giffnock Quarries, about two miles south of Langside. The outer-facing, generally, is composed of irregularly coursed rubble, squared on the joints, and hammer-dressed on the outer face. To maintain the horizontal character of the design, many of the stones consist of flags, 5 to 6 ft. in length, laid flat, the edges forming the exposed faces. All the pilasters, ante-pilasters or square piers, cornices, stone-lintels, blocking-courses, copings, sills, and reveals or in goings of openings, are finished with toled work, a finer margin being carried round all the openings on both faces. The portion of wall over the wide span where is the projecting window of the dining-room, is carried by a cast-iron girder, or bressummer, of the T section, 12 in. by 12 in., having a bottom flange of 1½ inch thick, and a web and top flange each of 1½ inch thick. The wood used for the lintels, wall-plates, sleepers, and window-sashes and cases, and
for the outside-doors, is Quebec red pine. The floor-boarding is of white pine battens; and all the other material for carpenters' work and joiners' work is American yellow pine. The partition between the large bed-room and the bath-room, and the partitions of the wardrobe-closets, are of timber, lathed and plastered. All the other partitions are of 4\frac{1}{2}-inch brick-work. The floor of the vestibule is laid with Minton's encaustic tiles; the floors of the offices are of asphalte; and all the other floors are boarded.

To prevent the rising of damp from the soil, Caithness paving-stone is worked in as a bed in the walling, immediately below the level of the sleepers of the lower floor; and to prevent the ingress of moisture through the thickness of the walls, as from rain, the walls externally are pointed with hydraulic lime, and the joints painted with white lead; whilst the great projection of the eaves is designed partly for the same object.

The roofs being of a low pitch, large Welsh slates are used, with extra lap. The projections of the gables and eaves consist of very large slates; which, in the case of the gables, are supported on cantilevers, or over-sailing timbers; whilst the slates at the eaves are carried on ornamental cast-iron brackets, secured to a plate of timber, which is fixed to the wall-plate, and to the ends of the common rafters. A slate-fillet is laid over the junction of the large slates, above each bracket, and fixed to its flange with small nuts and screws. This arrangement of the eaves is shown in the portion of the elevation which is enlarged in Plate XLII. The ridges are covered, and the valleys laid, with lead of 6 lbs. to the square foot. The downward flow of rain-water is thus provided for. To avoid external disfigurement, the gutters are set in from the eaves, so much as is necessary for their being on a level with the top of the walls; and the water is led into the soil-pipes of the W. C.s, and other pipes inside the building.

The dining-room windows have sashes, the upper ones fixed, the lower hung, and having a travel upwards of 4 ft. 6 in., and downwards of 6 in., leaving thereby a space for ventilation between the upper and lower sashes. The sashes are placed behind the cases instead of on each side, and have a clear space between them and the stone pilasters. By this mode of arrangement less timber is exposed to view, and the joints of the wood-work are protected from the action of the weather. The drawing-room windows have French casements, placed with reference to the stone-work in a similar manner. (See the details, Plate XLII.) The windows of the other rooms have sashes double-hung in the usual way.
All the windows have plate-glass, the lower parts of the lower range of small windows being obscured, and those of the offices being rough plate.

The section (Plate XL.) gives some idea of the internal finishings and decorations; which are made accordant with the external character of the house. In the dining-room small isolated pilasters of wood, 2 in. square, are placed between the window openings, at a sufficient distance from the sashes to allow space for the working of blinds and curtains; and similar pilasters are repeated at the angles of the room, and on each side of the doors. These pilasters are surmounted by a frieze and cornice of wood carried entirely round the room, which where it crosses the window serves the purpose of a curtain box. Below this frieze the walls are lined with narrow boards, chamfered on their edges. The whole of these interior finishings are of carefully selected yellow pine, the enrichments being frets of mahogany planted upon it. The wood is varnished, preserving its natural colour and markings, no stain of any kind being used.

The object of this mode of treatment is to unite together the several parts of the room, thereby giving an effect of increased extent. The apparent height of ceiling is also enhanced by giving force to the lower mass of the walls, and so making them serve as does a foreground to a picture. The drawing-room is treated in a similar manner, the only difference being that the small frieze and cornice are carried round the room at the level of the tops of the windows, and that it appears as an architrave to the principal cornice, with an intervening frieze.

The cost of this double villa was as here given:—

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavator's, Mason's, and Bricklayer's works,</td>
<td>£346 6 11</td>
</tr>
<tr>
<td>Carpenter's and Joiner's work, including Ornamental work to windows, finials, and eaves-brackets, and Ironmongery in general,</td>
<td>£673 5 0</td>
</tr>
<tr>
<td>Slater's work and Chimney-tops,</td>
<td>£43 10 1</td>
</tr>
<tr>
<td>Asphalte work,</td>
<td>£31 0 4</td>
</tr>
<tr>
<td>Glass, and Glazier's work,</td>
<td>£104 0 0</td>
</tr>
<tr>
<td>Plumber's work,</td>
<td>£109 1 0</td>
</tr>
<tr>
<td>Plasterer's work,</td>
<td>£110 0 0</td>
</tr>
<tr>
<td>Painter's work (executed immediately after the completion of the other works),</td>
<td>£81 8 0</td>
</tr>
<tr>
<td>Marble Chimney-pieces, Gasfitting, Stair-mills, Bellhanging, &amp;c.,</td>
<td>(a few) £50 0 0</td>
</tr>
<tr>
<td>Total for the pair of Houses</td>
<td>£2249 11 4</td>
</tr>
</tbody>
</table>

The nature of the site was such as to entail considerable outlay in excavation, and in the portion of the structure below the ground-floor level; which space, excepting beneath the store-closet, is not capable of being appropriated to any increase of accommodation.
OLDHANGER is a village to the east of Maldon, in the flat marshy part of Essex north of the estuary of the Blackwater. The Rectory, illustrated in our plates, was erected in the years 1851-52. The building must be considered remarkable for the amount of accommodation provided as compared with the cost. Its decorative character corresponds almost exactly with that of the true Tudor domestic Gothic style. A Rectory being intended to last for generations, and the law of ecclesiastical dilapidations, which requires an incumbent to keep his house in proper repair, being very stringent, it becomes important that parsonages houses be built in a plain and substantial manner. In this house, therefore, care has been taken to provide materials and workmanship the best of their several kinds, and to avoid all ornamental features which would involve costly or frequent expenditure for their preservation.

The house contains a drawing-room, a dining-room, a study, a housekeeper’s room, a storeroom, a butler’s pantry, and a kitchen, in the principal block, to which is attached a conservatory; whilst there is a one-story addition containing a large scullery, brewhouse and bakery, and places for coals and wood: the main block also contains cellars; and there are nine bed-rooms of various sizes, and two dressing-rooms,—two of the bed-rooms being in the roof.

The aspects of the drawing-room are south-west and south-east; and those of the dining-room and study are a little south of east,—the modification by the bow-windows not being taken into account in this statement. There is no prospect that required to be considered.
The ground-floor in the main block of the house is raised about 4 feet
6 inches above the highest part of the site, so as to avoid sinking the base-
ment-floor deeper than might be absolutely needful; and terraces with grass-
slopes are formed on the south and east sides, and on part of the west side.

Ground Floor.—The entrance is placed on the west side of the building,
within an open porch. The landing in front of the door is reached by steps,
which are under and within the archway of the porch. The door itself is
hung in a glazed screen. The hall is separated from the principal staircase
by an open arcade of two arches, as shown in the cross-section (Plate XLIV.)
The drawing-room door is on the right-hand side of the hall, and the dining-
room door faces the spectator on entering,—the two rooms being planned at
right angles to one another. Each of these rooms is lighted by a bay-window
at its end, and a three-light window at the side. In the angle formed by the
external walls of the two rooms, the conservatory is placed, with south and east
aspects, the flue for the heating-apparatus being carried up in the re-entering
angle of the walls. The drawing-room, conservatory, and dining-room may be
thrown open as a suite, the access to the conservatory being the side-windows of
these rooms, which open to the floor. There is also an external door to the con-
servatory on its east side. Entering from the principal staircase there is a cor-
ridor containing the service-door of the dining-room and the doors of a W.C. and
of the study. Shut off from the principal part of the house, by a door placed im-
mediately beyond the study, there are the butler's pantry, the service-window of
the kitchen, and the back-stairs. Under a portion of the back-stairs, and close to
the way down to the cellars, a small space is divided off, by a glazed partition,
as a storeroom; and close by this is the housekeeper's room. From the space
where the back-stairs are, there is a short passage in which is the kitchen-
door. This passage leads, down four steps, into the one-story portion of the house.
At the bottom of the steps is the place which serves the several purposes of
a scullery, brewhouse, and bakehouse; whence is a door into the yard. This
door has, close to it, a trap-way to the cellars; and it is placed under a pen-roof
that affords cover to an access to the wood- and coal-shed, to the
place for ashes, and the servants' W.C., and to the external yard-entrance.
The pump is in the wood-shed. Another W.C. is placed so as to be accessible
from the grounds of the house, but having its doorway properly screened off.
Communicating with the passage of the offices, already mentioned, is one
adjoining the scullery, affording access from the principal front of the building to the offices. Attached to the kitchen is a cook's pantry lighted from the yard. The floor-level in that portion of the building which contains the kitchen, housekeeper's room, and back-stairs, is two steps lower than the floor of the principal part of the house. This arrangement, with diminished height in the several stories, allows of additional rooms, which there are, as attics. The ground-floor rooms in the principal part of the house are 11 ft. in the clear height: the kitchen, housekeeper's room, and the storeroom are 10 ft. 6 in.; and the scullery and out-buildings are 8 ft. 6 in. to the top of the walls, but have additional height within their roofs.

Basement.—Considerable space had necessarily to be left below the ground-floor; but only a portion of the area occupied by the principal block of the house was required for cellarage. This portion is carried down somewhat deeper than the rest, and provides the storage for ale, beer, wine, and potatoes; and space for a larder and a dairy, as well as for the hot-water apparatus required for the conservatory. There are two ways of access to this basement, as already mentioned. The height of the cellarage, in the clear, is 7 feet.

Chamber Floor.—The two chief bed-rooms are over the dining-room and drawing-room, and have each a dressing-room attached. One of the bed-room suites could be conveniently separated, by its passage, from the rest of the house. Each dressing-room has a fire-place. On this floor are a housemaid's closet, and a W.C. The clear heights in this story range from 12 feet, in the principal rooms, to 9 feet in the room over the housekeeper's sitting-room.

Attics.—These are over the kitchen and the housekeeper's room. There are two bed-rooms, which are separated by a place for lumber. One bed-room is lighted by a small window in one of the gables, and the other by a dormer, which appears in the east elevation (Plate XLIV.) The lumber-room, in which is one of the cisterns, is well lighted from the valley-space between the back and front roofs. The window not only affords access to the gutter, but to a trap in the roof, through which access is obtained to the cistern that serves the W.C.s in the main block of the house. The height of the principal attic bed-room is 8 feet in the clear.

The general facing of the external walls is of red brick: the heads of openings, the window mullions and sills, and the arches and jambs, in the west front,
are of dressed Caen stone; whilst in the other fronts, the heads and sills only are of stone. The gables have Caen-stone copings; and the plinth is of Yorkshire stone. The roof is covered with plain red tiles, with courses of ornamental tiles at intervals. The ridges are covered with ridge-tiles; and the valleys (exclusive of the valley-gutter in the middle) are laid with valley-tiles. The bricks and tiles were procured in the neighbourhood. The valley-gutter, between the front and back roofs, is laid with lead, the water from it being conducted into the cistern over the W.C.s. The water from the eaves descends by pipes, outside the walls, and is stored in a tank which is not shown in our plans. The water for drinking is obtained from a well, where the pump is shown: it is pumped up to cisterns in the attics and roof; and from them it is laid-on, by lead pipes, to the different taps and sinks of the house. The house is well drained.

The timber employed for carpenter's work was Baltic fir; and for sills of window-frames, English oak; whilst Baltic deals and battens were used for joinery in general. Timber-partitions, where occurring, are framed and braced in the usual manner. The floors are all of single joisting, and laid with 14-inch yellow battens. The walls above bay-windows are carried by bressummers, 12 inches square, with solid abutment-pieces for the relieving-arches, spiked on the ends of them. The attic-windows have solid wood-frames, and wrought-iron opening-casements. The windows of the principal chamber-floor also have solid frames; but they have 2-inch wood casements. On the ground-floor, the window-frames of the dining and drawing rooms are solid, and have casements of 2½ inches thickness, those above the transoms being hung on centres. The other windows are like those of the floor above. The windows of the attics, the back-staircase, and the offices are glazed with diamond quarry-glass in lead-lights; those of the principal staircase and the room over the porch with the best glass, in ornamental lead-lights. The dining- and drawing-room windows are glazed with British plate-glass, and the remainder have best thick crown-glass. The conservatory is glazed with horticultural glass.

The contract for the house, complete, amounted to £1900; but the total cost, including extras, came to a little over £2000. Whilst, however, this statement could not be taken as conclusive respecting the cost of a similar building now (all prices having risen materially since 1852), we should mention that the contractor always alleged that he had under-estimated the cost of this Rectory by £200.
This small villa, called Howburn, was erected at Crosshill, in the southern outskirts of Glasgow, adjoining the Queen's Park, in the year 1857. It is situated on a road which is lined on each side by small villas and cottages surrounded by gardens. From this suburban road the ground slopes rapidly to the site of Howburn. The northern or entrance front of the house has no view but that of some cottages opposite. The view from the southern front is extensive and interesting. The plan and arrangement is somewhat peculiar, induced by the site, and the limited sum for which it was required that this house should be built. The principal rooms are placed on the side furthest from the entrance, and on the upper floor; the reasons being that they might fully command the view, have the southern aspect, and not be overlooked from the road and by neighbours on the higher ground. The chief entrance of the house, for visitors, gives immediate access to the principal, or upper, floor; whilst there is a separate entrance to the more private apartments of the lower story, from the ground-level.

The decorative character of the building is in the main rural Italian. This is pronounced in the roofing; which is of low pitch, and has wide projecting eaves. The effect of the villa towards the south is not sufficiently understood by the elevation on Plate XLVI.: the end elevation on the other plate gives certain window-lights which are features at the sides of the projection in the front.

The house occupies, as regards the main block, an area of ground which
may be described roughly as about 40 feet by 34 feet; and it contains two sitting-rooms—one on each floor—three bed-rooms, as well as a lighted bed-closet; a bath-room and a kitchen, a scullery and a wash-house, besides an amount of closet-space, considerable for the size of the house. Further, there are out-buildings arranged within a yard, or kitchen-court, the inclosing walls of which group effectively with the main building.

**Ground Floor.**—The entrance-door, on this level, is in one side of the projecting portion of the north front, which contains stairs of internal communication. The house is entered here, under these stairs; under which also is a pantry. The staircase, the entrance-lobby, and the landing on the upper floor, are lighted by one tall window. From the lobby lead out the doors of the parlour, the kitchen, one bed-room, the pantry, a closet containing the bath and a W.C., and a smaller closet. The parlour is lighted by two windows—one of these internally is a bay (but without lights at the sides) in the two-storied projection which is a feature of the south front. Leading out of the parlour is the bed-closet, with separate window; and also attached to the parlour is a small store-closet. Attached to the kitchen is a small closet with a narrow opening for light and ventilation; and there is also a recess for a bed. This latter feature in a kitchen, peculiar to Scotland, is passing out of use. A door from the kitchen leads into the scullery; and attached to the scullery is the wash-house, furnished with tubs and a copper, and having a door into the kitchen-court. Near to this latter door are two cellars and a coal-shed; these, with the scullery and wash-house, are covered by a lean-to roof, which is not seen from the outside. On the other side of the yard are two W.C.s—one of which is entered from the garden—a place for ashes, and the door between the yard and the garden. The height of the rooms of the ground-floor, in the main block of the house, is 9 feet 6 inches in the clear.

**Principal Floor.**—A dining-room and two bed-rooms—all the rooms on this upper floor—are entered from a square landing at the top of the stairs of internal communication. To the same landing the stairs from the principal entrance lead up. The threshold itself of this entrance, with the floor of the vestibule, is at the level of about half the height of the principal floor above the ground. The plan and section together, on the plates, explain the arrangement, and show the division of the ascent into external
steps and internal stairs. The dining-room is lighted on two of its sides, the principal window, being a large bay, partly corbelled out and overhanging the front. The rooms of the upper floor are 11 feet in the clear height.

The material used for the external walls is stone from Giffnock quarries, about 2\frac{1}{2} miles distant. The general masonry is irregular rubble: the dressings are tooled. The internal partitions are of brick. To prevent the rise of damp, the lowest course of stone is laid on a bed of asphalte 6 inches in thickness, which also forms the foundation. On this the walls are built: no foundation-stones are used. American red-pine is used in the carpenter's work; the floor-boards, 1\frac{1}{2} inch in thickness, are of white pine; and the general finishings are of yellow pine. The roofing is of the construction usual in the district, the common-rafters being placed at intervals of 18 inches, and covered with slate-boarding. The outer covering is of Ballachulish slates, of full size. The eaves project 2 feet. The ridges and hips are covered with lead, of 5 lbs. to the foot; and the gutters are lined with lead of 6 lbs.

The windows are fitted with hung sashes: those of the principal rooms are glazed with plate-glass; the inferior rooms have sheet-glass; and the staircase-window has stained glass.

The cost of the house was as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masonry and Brickwork</td>
<td>£351 13 1</td>
</tr>
<tr>
<td>Asphalte in Foundations</td>
<td>23 13 10</td>
</tr>
<tr>
<td>Carpenter's and Joiner's work, Ironmongery and general Glazing</td>
<td>251 7 3/4</td>
</tr>
<tr>
<td>Slater's work</td>
<td>20 9 5</td>
</tr>
<tr>
<td>Plasterer's work</td>
<td>30 5 2\frac{1}{2}</td>
</tr>
<tr>
<td>Plumber's work</td>
<td>56 10 11</td>
</tr>
<tr>
<td>Smith's work</td>
<td>16 10 0</td>
</tr>
<tr>
<td>Bellhanger's work</td>
<td>4 10 0</td>
</tr>
<tr>
<td>Gasfitting</td>
<td>5 6 0</td>
</tr>
<tr>
<td>Marble Chimney-pieces</td>
<td>9 10 0</td>
</tr>
<tr>
<td>Total</td>
<td>£778 16 3</td>
</tr>
</tbody>
</table>

Painting and plate-glass are not included; but the total stated includes an amount of £16, 10s. for iron railings, which are not shown in our view.
Gotham is a village situate seven miles south of the town of Nottingham. The cottage illustrated in the accompanying plates was erected in the year 1863. The ground on which it stands is in the main street of the village, and forms a corner-plot on the western side of the street, adjoining a narrow rural lane. The church, and the rectory which adjoins it, are on the opposite side of the street, from which the latter building is separated by a shrubbery and trees.

The entrance-front of the cottage, where are the windows of the principal rooms, faces due east, being sheltered by the shrubbery. The church is seen at some distance to the north-east, on the opposite side of the street. One of the windows, however, belonging to the drawing-room of the cottage, is placed in an angle of the room; so that it looks south-eastward towards open country beyond the rectory-grounds. The south front of the cottage, towards the lane, has a conservatory projecting from it.

The soil is a rich loam; and in beds beneath the surface, are deposits of gypsum; which material is largely used in the neighbourhood for conversion into plaster of Paris.

The decorative character of the building is medieval; and the ornamental details are analogous to those of the early Gothic. Small cost being essential in such a building, the general material of the walls, including the facing of the fronts, consists of the common bricks, so called, of the district; which, in quality and appearance, are nearly as good as the superior bricks of other localities.
The house, without the conservatory, occupies an area of ground measuring about 32 feet square, exclusive of the projections of gables, and fireplaces and flues—these latter being in all cases external. The rooms are arranged in two floors, whereof the chamber-floor is partly within the height of the roof. There is a wash-house and brew-house as a detached building; and there are some conveniences of the main building also out-of-doors. On the ground floor there are a drawing-room, with a small study or boudoir attached, a dining-room, a kitchen, and a larder. On the upper floor there are four bed-rooms.

**Ground Floor.**—A passage, 3 feet 9 inches in width, leads from the entrance-door to a small octagonal hall, from which last the stairs to the upper floor ascend. In the passage are the doors of the drawing-room and dining-room, opposite one another; and in the octagonal hall are those of the study and kitchen, besides one to a space under the stairs, which communicates with the larder. Through the study, access is obtained to the conservatory, either from the hall or the drawing-room. The study is lighted from the conservatory. In the drawing-room, the south-west corner is filled in with a book-case, so as to make that corner correspond with the others that are angled. The dining-room, which is somewhat smaller than the drawing-room, has a glass- and china-closet attached to it. Attached to the kitchen are a lighted recess, for a sink, and a closet also lighted. The larder, at the south-west angle of the building, is sunk into the ground, with the object of getting cool temperature. Underneath the stairs there is a store-place for groceries. The height of these rooms of the ground floor is 10 feet in the clear.

**Chamber Floor.**—Besides the four bed-rooms, there are a housemaid’s closet, a lavatory attached to one of the bed-rooms, and a linen-closet attached to the other bed-room. The rooms on this floor are 9 feet 6 inches in height. There is also a store-room in the roof, reached by a trap in the ceiling of the north-west bed-room.

The external walls are of 1½ brick thickness, in one portion of the plan, and 1 brick in the remaining portion. For economy, stone-work has been avoided as much as possible. The decorative effect is obtained mainly by the treatment of the roof; by the slight projections in the front, along with gables; and by the breaks in the gables, which reduce their apparent width. The general facing-work of bricks of a rich red colour, is pointed with dark
blue mortar; occasional bands of Peake's blue Staffordshire bricks are inserted; and there are other surface ornaments of the same material. The arches of the principal windows and entrance-door (shown in Plate XLVIII.) are formed with two rims of bricks, the corners of which are splayed or "canted," and an outer rim of Peake's blue Staffordshire bricks. In one of the rims of splayed bricks, the alternate bricks have the splays in reversed positions. The angle of the building, in which the drawing-room window is placed, is carried by a stone shaft 6 inches in diameter, with a base and a neck-moulding, and a foliated capital. The sill, or shelf, at the back of the shaft, forms a convenient place for plants in bloom. The chimney-stacks have received their peculiar character in the endeavour to avoid unoccupied spaces, or "pockets," in them, as well as from their external disposition. Thus, in the stack which appears in the view (Plate XLVII.), every part of the interior is occupied by flues or fireplace, or both together. The brick-work at the base of the building is thickened 4\(\frac{1}{2}\) inches, to form the plinth. The internal partitions are of 4\(\frac{1}{2}\)-inch brick-work. The bricks were brought from a distance of a mile and a half. The stone is of the kind generally used in Nottingham, which is obtained from Hollington, distant perhaps forty miles. It was worked in Nottingham; and thence the worked material was carted to the site of the house.

The conservatory is an inexpensive structure, having for its decorative features, cresting to the ventilating-ridge and eaves, and spandrel-pieces to the heads of the lights, all executed in cast-iron. These ornamental details are shown in Plate XLVIII. The same plate gives an elevation of the entrance-gate, with a portion of the ornamental fence-wall: the following references explain the construction of the latter:

REFERENCES TO ELEVATION OF FENCE-WALL.

AA, coping, Hollington stone; BB, course of common bricks, laid longitudinally; CC, bricks laid edgewise, and splayed at both ends; DD, piers formed of three courses of bricks laid flat and transversely; EE, splayed brick plinths, with stones, FF, inserted at every interspace to carry the cast-iron ornaments; GG, courses of blue Staffordshire bricks laid flatwise.

For the carpenter's work the best Gottenburg timber was used. Clean red deal was used for joiner's work; and, having been specially prepared, the work was stained and varnished. The flooring is formed of joists 7 inches by 2\(\frac{1}{2}\) inches, and of 1-inch white-deal boarding laid with straight joints.
The window-openings are all fitted with hinged casements, excepting the angular one, which has sliding sashes. There are no shutters; plate-glass has, from its thickness, been considered a substitute, with addition of a good lock-fastener to the casement or sash; whilst the glass gives improved appearance.

To keep down damp, a layer of boiled tar and finely-washed Trent sand, \( \frac{1}{4} \)th of an inch thick, was laid on the course of bricks forming the top of the external plinth. Gratings, to admit air and prevent dry-rot, were inserted in the walls, not only as regards the space below the flooring of the ground-story, but as regards that of the roof.

The roof was covered with Bangor slates, from the Penrhyn quarries, of the small size called \textit{ladies}, fastened with copper nails of the weight of 3\( \frac{1}{2} \)lbs. to the thousand. The ridges were capped with Peake's terro-metallic tiles, with ornamental cresting set in dark-coloured cement.

The amount of the original contract for the building was £329, 10s. But as there were some additions, the cost of the house, with the fence-walls and the wash-house, ultimately stood as given below, the total at the foot of the account being the sum actually paid.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract with builder,</td>
<td>£329 10 0</td>
</tr>
<tr>
<td>Tessellated Pavement for hall,</td>
<td>6 10 0</td>
</tr>
<tr>
<td>Forming a W.C., cesspit, and drain,</td>
<td>16 0 0</td>
</tr>
<tr>
<td>Ornamental fence-wall (80 lineal feet) and entrance-gate,</td>
<td>34 0 0</td>
</tr>
<tr>
<td>Conservatory, exclusive of internal fittings,</td>
<td>50 0 0</td>
</tr>
<tr>
<td>Rain-water cistern; Flue to Conservatory, extra for Chimney-pieces and</td>
<td></td>
</tr>
<tr>
<td>gates, or more than allowed in contract; Cornice in entrance-hall;</td>
<td></td>
</tr>
<tr>
<td>Force-pump; and building a Wash-house,</td>
<td>87 7 11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>£503 7 11</td>
</tr>
</tbody>
</table>
STRATH COTTAGE,
DUMBARTON.

J. T. ROCHEAD, ARCHITECT, GLASGOW.

PLATES XLIX. L.

STRATH COTTAGE, the subject of the accompanying plates, was erected in 1853. Its site, at the outskirts of the town of Dumbarton, and near to the railway-station, is somewhat low; but the back of the house, where the library is, commands a view of Dumbarton Rock and Castle. The aspect of the principal front is north-west. Including the garden, the ground does not exceed one statute or English acre.

This house was designed with the view of producing, at limited cost, a more picturesque character than is usually attained in small houses that are square in plan. The large projecting window is balanced by the entrance-door, which latter is placed towards one end of the front; and the internal passages are so arranged as to be less liable to produce draughts, than where they lead more directly from the front to the back-entrance.

The decorative character of the design resembles that of the late Tudor-cottage style: though there are no stone mullions to the windows; whilst eaves and gable-roofing that overhang the walls, with wooden finials and pendants, are features of the fronts. The projections are of importance in a moist climate.

The building occupies an area of 42 feet by 34 feet, exclusive of projections. It has two storeys; of which the upper one is, the greater part of it, in the roof, though made as convenient as that arrangement admits, by the introduction of gables to the windows of the drawing-room and staircase, and dormers to the bed-rooms and the front dressing-room,—the other windows of the upper storey being beneath the main-gables. There are three sitting-rooms
and four bed-rooms, besides a recess for a servant's bed. Rooms of the two kinds are on each floor. Provision of a considerable amount of convenience, as in dressing-rooms and closets, characterizes the house generally.

**Ground Floor.**—The principal entrance, at the top of a flight of steps, leads into a vestibule. A lobby, lighted from the front of the house, and in which there is the door of a bed-room, leads into a well-lighted staircase-hall. In this are the doors of the dining-room and the parlour or library, and of a sub-lobby under the stairs leading to the kitchen. In this part of the plan, also, is a press, or closet, convenient of access from the dining-room; whilst there is another closet opposite the kitchen-door; and there is a wincellar under the stairs; of which the entrance is from the parlour. Opening out from the kitchen is a second closet, besides the recess for a servant's bed. A small scullery, provided with a sink and dresser, projects from the back of the house; and here is a back-door, at the top of steps. The position of these is marked at the end of the house by a bit of dwarf-walling, or plinth; so that the entrance is readily discovered from the front. A large bow-window to the dining-room, and a closet to the bed-room, are other features of the plan. The rooms of this floor are 11 feet in the clear height.

**Chamber Floor.**—Here is the drawing-room: there are three bed-rooms, two of which have dressing-rooms attached; and there are also a bath-room and W.C. together, a store-closet, and a closet to be used as a wardrobe, or for linen. On this floor the rooms are 11 feet in the height to the ceiling in the highest part, and 7 feet in the lowest, or where the slope corresponding with that of the roof begins. Dotted lines on the plan mark where the slope, back and front of the building, ends, and show the extent of the flat ceiling.

The external walling is of free-stone, from Dumbarton Quarry, about a mile distant. The general masonry is neat rubble-work, pointed with hydraulic lime or Portland cement. The door- and window-dressings are tooled; and so also are the coin-stones, which project about an inch from the general facing. Caithness paving-stone, a course of one inch in thickness, is built in the four outer walls, as well as in the internal walls (which are of brick), below the under-side of the base-course of the house, to prevent rise of damp. The compactness of the material, and the mortar or cement used, together with the projections of the roofing, prevent influx of damp through the walls. Walls
STRAITH COTTAGE.
DUMBARTON.

RACK ELEVATION
of whinstone are more liable to leakiness than those of the material used in the present case. Besides the provisions mentioned, there are gratings, 12 inches by 6 inches, on the four sides of the house, for ventilation of the spaces below the ground-floor.

The timber used for window-sashes and frames, outside doors, and other exposed wood-work, as in the case of overhanging eaves, finials, and pendants, is American red-pine. The general carpenter and joiner's work of the interior of the building is executed in American yellow-pine; but the flooring-boards are of white Norway battens 1½ inch thick.

The slater's work is done with full-sized West Highland slates. The slates are let into grooves cut in the stone-work of the chimneys; and at the eaves and dormers they are inserted below the wooden coping, so as to show their outer edges.

The water is led from this roof by gutters (of 6 lb. lead), which are carried through the tops of the dormers, front and back of the house, to rain-water down-pipes, of 2½ inches diameter; the positions of which are marked on the plans. The roof of the bay-window is covered with lead—the edges of the lead being dressed, overlapping, on the edges of the boarding.

The steps at the front-entrance have balustrades of the Elizabethan or Jacobean character, with ball-crowned pedestals.

The cost of this house was as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masonry and Bricklaying:</td>
<td>£310 6 4</td>
</tr>
<tr>
<td>Carpentry, Joinery, Glazing, and Ironmongery</td>
<td>413 7 8</td>
</tr>
<tr>
<td>Plastering:</td>
<td>57 9 11</td>
</tr>
<tr>
<td>Plumbing:</td>
<td>58 10 2</td>
</tr>
<tr>
<td>Stating:</td>
<td>28 16 3</td>
</tr>
<tr>
<td>Marble Chimney-pieces:</td>
<td>15 11 0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£884 1 4</strong></td>
</tr>
</tbody>
</table>

The above statement includes plate-glass for the main-front, as well as the ordinary glass, but excludes the staircase-window; which is of stained glass: it also excludes bellhanging, painting, and gasfitting.
VILLA AT GRANTHAM,
NOTTINGHAMSHIRE.

HINE & EVANS, ARCHITECTS, NOTTINGHAM.

PLATES LI. LII.

This House, erected in 1864, is situate on the eastern side of the town of Grantham. The principal front has a southern aspect, and looks towards the new cemetery. The militia-barracks are to the north. On other sides there is open country of pleasing character. The substratum on which the foundations of the building rest, is sandy and very dry.

The decorative appearance of the villa resembles that of the "Double Villa at Derby," by the same architects (Plates XXII. XXIII.) The medieval character is departed from in the forms of some of the openings, and by the omission of mullions to the windows, and the use of sliding-sashes.

The main-block of the building occupies an area of about 50 feet by 46 feet, measuring-in certain projections; whilst an attached block at the back occupies a space of 23 feet by 18 feet 6 inches. There are two ordinary storeys—the upper one being partly within the roof; and under a portion of the main-block are cellars. There are three family living-rooms, and a gun-room, or business-room; a complete set of offices, six bed-rooms, and two dressing-rooms. The principal staircase occupies the centre of the main-block, and is lighted from a lantern at the top, through a square well-hole of the landing and stairs.

Ground Floor.—The principal entrance to the house is at one side, looking westward. The door opens directly into the hall; which latter is lighted by windows at the sides of the door, and by a fan-light. Close to
the entrance is the door of the "gun-room." This room has two windows; one of which commands the approach to the entrance of the house. The principal stairs ascend from the entrance-hall. In a widened portion of this hall, or rather in the staircase-hall proper, are doors of the drawing-room, breakfast-room, and dining-room; of a store-room; and of a way, under the stairs, to the back-stairs and offices, and to the back-entrance of the house. From the staircase-hall, also, and under the principal stairs, is the way down to the cellars. The breakfast-room and drawing-room communicate with one another by folding-doors. The drawing-room has a bay-window; and at the side of the fireplace—which is in an external wall—is another window, commanding the approach, and corresponding with a window of the gun-room already mentioned. The dining-room has a somewhat similar arrangement of a fireplace and a window; whilst the end of the room is occupied by a peculiar group of three square bay-windows; the two smaller are set on the angle, and thus a view of the country, embracing an angle of 90 degrees, may be enjoyed from near the centre of the room. Each of the principal rooms looks to the south. It will be observed that the offices and back-stairs can be completely shut off from the rest of the house. Close to the ascent of the back-stairs are the back-door and the doors of the kitchen and butler's pantry. Attached to the kitchen is a scullery, whence there is a way to a larder and to a second back-door, which affords external access to a staircase to the man-servant's bed-room, and to a loft over it. The rooms on the ground-storey are 12 feet in the clear height.

 Basement.—This occupies the space under the drawing-room, breakfast-room, and entrance-hall. It is confined to provision of a wine-cellar and two ale-cellar. They have a clear height of 8 feet.

 Chamber Floor.—There are four principal bed-rooms, if we include one that is reached from the back-stairs; besides which one of the dressing-rooms is large enough for use as a bed-room. There is also a maid-servant's bed-room, reached by steps from the landing of the back-stairs; and there is a man-servant's room, with its own staircase, or entirely shut off from the body of the house. The small dressing-room (with fire-place at the side of a window), a linen-closet, and a W.C. complete the chamber-floor. The height of the rooms on this floor is 9 feet at the commencement of the roof-slope, and 12 feet in the highest part where the ceiling is flat.
Over the man-servant's bed-room, the room or loft is entirely within the roof. A window to it appears in the North Elevation.

The walls of the house are of brick. The external walls are of the thickness of one brick and a half: the bricks are those of the locality. The general facings are of dressed red bricks. Voussoirs of the arches, and some other features of the front, are executed in the Staffordshire blue bricks. The provision to prevent rise of damp consists of a course of slates laid in cement, in the walls immediately under the level of the ground-flooring. The copings, weatherings, and dressings of doors and windows are all of fine oolite stone, from the Ancaster quarries, which are about seven miles from the spot.

The roof is covered with Welsh slates; and the ridges are covered with Staffordshire ornamental ridge-tiles. The carpentry of the roof is of very simple character; the common-rafters are carried by purlins which rest on the partition- and gable-walls; whilst at intervals of 10 feet in the length of each space of roof, the feet of the rafters, with the wall-plates on which they rest, are secured together by timber-ties. The water from the central "flat" is conveyed by a trough-gutter through the eastward-roof to the external down-pipe.

The joiner's work throughout the interior is executed in clean red deal; which is slightly stained, and then coated with the best copal-varnish. This mode of finishing wood-work, (which certainly admits of effect, produced by the grain of the wood,) is now not uncommon, and is by some architects preferred to painting, both for effect, and because it necessitates, in selection of the material, that care which favours durability. Such care as is necessary for the effect, however, it is not easy to insure; and it is often difficult to avoid knots that are loose or are eyesores, instead of sources of beauty; whilst the cost of some items is increased: thus hinges should be brass.

The filling-in for the glass of the ordinary windows has been referred to. The angle-windows of the dining-room form exceptions to the sliding-sash arrangement: each opening is filled-in with a single sheet of glass, and becomes a picture-window, affording an unimpeded view of the landscape. Plate-glass is used for the glazing of the windows of the reception-rooms, entrance-hall, and three best bed-rooms.

The cost of this house, exclusive of boundary-walls, stables, &c., was £1550.
An architect's thought devoted to his own house should be of value even to other architects. It is not often, however, that architects live in houses of their own contrivance; and we are fortunate in being able to present on these plates, illustrating a villa at Dulwich Wood Park, and in the two of Worcester Lodge that follow them, two examples out of the very limited number of architects' residences that have been designed by their occupants. The interest in, if not value of, these examples will be the greater if it be recollected that seldom is the work of an architect produced without interference from his employer, such as often tends to prejudice result to the employer himself. Somewhat as Pugin stated the case, real success is to be achieved only when the architect is "architect and paymaster." In other words, then alone is an architect equal with the painter of a picture in advantages for production of a work of his art.

The Plates represent a villa which is the residence of Mr. Robert R. Banks, architect; who designed the house. The building is situate at the south end of Dulwich Wood Park, or what would here be better described as the ridge of Sydenham Hill—near Norwood, in Surrey. It was erected in 1862. It stands to the west of the north end of the Crystal Palace, on the opposite side of the road from which are the principal entrances to that building. The exact site is on the steep side of the hill, and between the level road mentioned (towards which is the entrance-front), and a descending road that branches out from the other at a point near to the site of the house, and that leads to Dulwich. The garden-front is seen from the latter road, elevated
30 feet: the effect is, therefore, somewhat different to that shown in our Plate (LIV.); which, giving the elevation viewed near at hand, presents the basement-storey with greater prominence than it has, excepting when closely approached, and omits altogether features of foreground that contribute to the picture of which the house bears the leading part.

It should be understood that the house was contrived for special requirements of a small family, and that the outlay proposed was limited to about £2000.

The aspect of the entrance-front is, actually, south-east, but shut off, to a certain extent, by the Palace: that of the garden-front is north-west. The only extensive view from the house being that from the garden-front, all the important windows were there contrived in planning. The view extends far over the valley of the Thames. Dulwich Woods are close beneath.

The soil, to a depth of about 40 feet, is a very hard yellow loam, with streaks of gravel. Immediately below this is the hard blue London-clay.

The decorative character of the house corresponds with that of houses of the domestic Tudor-Gothic style. The plan was partly governed by the circumstances of site and prospect that have been referred to. The main-building occupies an area which may be called 38 feet by 33 feet. Including the basement, there are three principal storeys; and some more than ordinarily convenient rooms of the sort are provided entirely within the height of the external slopes of the roof. The residential accommodation includes three living- or reception-rooms (besides a billiard-room), eight bed-rooms of all kinds, a bathroom, a conservatory, and ample offices.

Ground Floor.—The front-door, to the right hand, looking at the front, is placed beneath a wooden porch, or hood, sufficient for shelter. The entrance leads into a hall, which is somewhat ornamental, and was purposely planned of irregular shape [it has the plan of the letter T], so as to break the rush of air into the body of the house, on the opening of the door,—protection especially important during prevalence of easterly winds. This hall is lighted by a window in the end of the house, near to which is a W.C. Turning to the left, having entered, you pass the descent to the basement-storey, and enter the staircase-hall; from which lead out the doors of the dining-room, drawing-room, and study. The staircase-hall, whilst of ample space where required, or below, is contracted in width on the upper floor, for the sake of a longer
bed-room. This will be understood from the longitudinal section (Plate LIIV.), and from lines which are dotted on the plan of the chamber-floor (Plate LIII.). The dining-room and the drawing-room both look in the direction of the principal view. The first of these rooms has a bay-window, and also a smaller window. The study, which is entered by a door from the dining-room, as well as by one from the hall, has a door from it into the conservatory, at the southern end of the house; and from the conservatory is a way into the garden, by eleven steps down. The basement-stairs are made sightly, as well as convenient, since they afford access to the billiard-room. The rooms on the ground-storey are 11 feet 4 inches in the clear height.

**Basement.**—This storey has the windows in the garden-front wholly above the ground. These windows light the billiard-room and the kitchen. There is a door that shuts off the kitchen-department from the way to the billiard-room. An external door to the basement is at the foot of steps at the end of the house; it also opens from the kitchen-court; which is inclosed by plain park-pailings—shown in the elevations. The offices include kitchen, scullery, larder, beer-cellar (partly under the stairs), wine-cellar (over which is a cistern), and a store-room. The rooms and offices in the basement vary from 10 feet 6 inches, to 9 feet in height. Outside the walls of the main-building there are, besides (at the north end of the house) the place for dust and the servants' W.C., the furnace-room for the conservatory, and a small workshop (also under the conservatory) entered from the garden.

**Principal Chamber-Floor.**—Here are four bed-rooms and a bath-room, not to mention a convenient little cupboard or press on the landing part-way up the stairs. This storey is 8 feet 9 inches in the clear height.

**Attic Storey.**—Here are four bedrooms, three of them lighted by dormer windows, and the fourth by a small window in the gable above the porch. One of them has a fireplace, and another has a large lighted closet attached. Cisterns are placed in a space where they can be conveniently got at. The rooms are 8 feet in the highest part. The landing at the top of the stairs is all of that height.

As regards the materials of the house, the external walls are of brick, with dressings of stone, and mullions to the windows. For the body of the walls, the common bricks, procured within half-a-mile distance, were used. The facings
of the four fronts are of red bricks, of superior quality and colour, brought from Lowestoft, in Suffolk, 130 miles by sea and land. The work was finished with black tuck-pointing. The basement-walls are protected, where below-ground, from damp of earth that would otherwise have rested against them, by dry areas, shown in the transverse-section. The windows, dressings, string-courses, and door-jambs, are in Box Ground stone, from the quarries near Bath. Although somewhat coarse-grained, it resists action of the weather better than the other kinds of Bath stones. The distance from the quarry to Sydenham Hill is about 120 miles—the carriage being by rail and road.

The partitions are chiefly of timber-quartering; but some of those of the ground-floor are of brick, 4½ inches thick, set in Roman cement.

The carpenter's and joiner's work generally is of Baltic timber and deals; but the stairs are of picked American pitch-pine, with ornamental balusters and handrail in wainscot. This work in the staircase is not painted, but stained and varnished. The floors are filled in, between the joists, with soundboarding and pugging of coarse mortar. All the sashes are glazed with strong plate-glass of the best quality.

The roof-framing is of ordinary construction. The roof-covering is of very hard flat tiles, of a fine rich chocolate-red colour, which were made at Broseley, in Shropshire. They are placed in bands, or as six rows of ordinary shaped tiles to three rows of escaloped. The ridges are covered with ornamental tile-crested. The flat is covered with lead, of 6 lbs. to the foot superficial; of which are the flashings also. The water is conveyed from the flat by a lead trough-gutter, passing beneath one of the ridges, and thence down the slope to the eaves-guttering.

The actual cost of the house, without ornamental painting, stood thus:

| Amount of Contract                  | £1780 0 0 |
| Marble Chimney-pieces               | 60 0 0    |
| Stove-grates, Kitchen-range, and Fittings of Bath | 160 0 0 |
| Gasfitting, including ordinary Bracket-lights, but not Gasaliers | 59 0 0 |
| Oak-framing to Garden and Gates    | 60 0 0    |
| **£3099 0 0**                        |           |

The ornamental painting and gilding, executed two years after completion of the contract, cost £300 additional; but, in the owner's opinion, less decoration—say by £100—would usually suffice.
SECOND example of a house built by an architect for his own residence, is the subject of these Plates. It is a house on a smaller scale of accommodation than that illustrated in the plates immediately preceding. It is situate close to Camden Road, in the Holloway suburb of London, and not very far from Villa-Careno, by the same architect, which was illustrated in Plates XXVII. and XXVIII. The present subject of illustration, Worcester Lodge, was erected in the year 1859.

The house faces the south-west, and stands at an angle formed by a road and a side-lane. The aspect would not have been adopted in the open country; but here the house is one of a range of detached and semi-detached villas, each of which occupies very limited ground. The general decorative character of the building is Gothic; but the style is greatly modified, and adapted to the materials and requirements of the day. Some of the observations in our description of the other villa by Mr. Truefitt, would be applicable to the present building. With all the simplicity and moderate cost of the structure, everything, inclusive of the iron-work and gas-fittings, was designed by the architect for the special case.

The main-block of the house, or all that rises above the ground-floor, occupies an area of 28 feet by 25 feet. The ground itself has a frontage of 30 feet, measuring-in half of the party-fence wall; but the breadth is greater behind. Some ground is given up to the side-lane, to get square angles. There are three storeys, the upper one being partly in the roof. There are two day-rooms and four bed-rooms of all kinds. There is no underground storey.
GROUND FLOOR.—The arrangement of the front-entrance is well explained in Plate LVI. The doorway is sheltered by an open porch, and is screened to some extent by the dwarf-wall at the side, behind which plants are set. The dining-room opens from the entrance-hall. At the end of the latter are the staircase, and a door which shuts off the offices. The kitchen is partly in a projection, to the rear, which provides a store-room also, and has a lean-to roof. The full width of this projecting piece is occupied by the windows. The kitchen is entered from beneath a glass-covered way that leads to a door from the house into the back-garden, and to a combined bath-room and W.C.; whilst opposite the kitchen-door is an entrance from the side-lane. This entrance is planned so as to be within sight from the road in front. Behind the garden-wall are the places for coals and dust. There is a servants' W.C., which is under the stairs, within, but is entered from outside the house. Attached to the kitchen are a small scullery and a larder. The latter is raised four steps above the floor of the scullery, and has a wine-cellar below it. The rooms in this storey are 9 feet 6 inches in the clear height. At the end of the house is a conservatory, heated by a gas-stove.

ONE-PAIR FLOOR.—Here there are two rooms, namely, the drawing-room, and the principal bed-room. The drawing-room has the peculiar arrangement of windows shown in Plate LVI, a double-window being placed at the angle of the building as well as a window in the main front. This gave a considerable range of view before the prospect was shut out, partially, by more recent buildings. The rooms on the floor are 10 feet in the clear height.

ATTIC STOREY.—On this floor are three well-lighted bed-rooms, one of them small; and a commodious linen-closet. The rooms on this floor are 9 feet in the highest part.

There is a separate flue, adjoining the kitchen smoke-flue, for ventilation, with an opening into it from every room in the house, excepting the small bed-room.

The external walls are of brick, 13½ inches in thickness as regards the ground and one-pair storeys, and 9 inches above. The bricks generally are the ordinary "stocks," or common bricks; but the fronts are faced with washed-stocks. Both kinds were close at hand. Some red bricks are used in bands, and in the window-arches. What little stone is used is Portland.
The internal partitions, excepting one that has the fire-places and flues, are of brick, 4½ inches in thickness, set in cement. The partition in upper floor is of trussed timber-quartering where spanning the space over the drawing-room, and of framed boarding for the inclosure of the little space next the bedroom, doors. To prevent rise of damp from the soil, there is a course of slate, in the walls, at the ground-level.

The roof-covering is of countess-slates, laid on deal-boarding one inch in thickness, with hips and ridges each formed of slate slabs and rolls,—the slabs 3/ths of an inch thick, and the rolls 2½ inches thick,—and valley-linings of lead weighing 6 lbs. to the foot. Here the architect, viewing the fact that snow will accumulate in internal hollows of a roof, has carefully made all his gutters external (they are all iron eaves-gutters, with external down-pipes); and he argues in favour of this arrangement, for general adoption, from the results,—not a drop of water having come through the roof of his house since it was built. A separate “lean-to” covers the staircase-portion of the building.

The carpenter’s work is of Baltic fir: the joiner’s work is of yellow deal, varnished, without staining. The window-openings are all fitted with hinged casements, in mullioned and transomed solid fir frames. The windows of the dining-room and drawing-room are glazed with plate-glass, and the other windows with sheet-glass.

The hearths and skirtings throughout the house are of ornamental tiles, as is also the flooring of the hall. All the grates have fire-brick backs; and the dining-room and drawing-room fire-places have sides, or “covings,” of tiles.

Each room is papered with one pattern of paper as a dado, 3 feet 6 inches in height, with a border of 3 inches to the dado, and with a different pattern for the remainder of the height. The principal rooms have cornices with coves coloured, but no centre-flowers or other ornament in plaster.

The total cost of the house, including papering, grates, and gas-fittings, as well as the garden-walling and railing, was £705; but such has been the rise in materials and wages since 1859, that, in the opinion of the architect, the cost would now (1867) be nearly a couple of hundred pounds more.
COTTAGE AT GOVAN,
RENFREWSHIRE.

J. T. ROCHEAD, ARCHITECT, GLASGOW.

PLATES LVII. LVIII.

THIS House, called Langland's Cottage, is situate near Govan, a village on the south-western outskirts of Glasgow. It was erected in 1853. The site is level. The aspect is west, or rather to the north thereof. In the design and planning, the aim has been economy of space in passages, and of external walling, combined with picturesqueness of effect in a flat but wooded locality. The walls are of varying heights,—some portion of the height of the ground-storey, even, is comprised within the roofing of the lower level; the bed-room accommodation is divided between the ground-floor and a floor that is wholly within the roof; the slopes and gables are steeply inclined; and, as the house can be seen well on all sides, the design has been studied for grouping from whatever point of view, and the decoration and masonry are finished in the same manner all round. The cottage, in point of style, resembles the domestic Tudor-Gothic. The chimneys, separately or as seen together, are important features, giving piquancy to the whole. The house covers an area—not counting a projection—of about 37 feet by 34 feet; out of which a piece is cut, at one corner. The accommodation consists of one parlour, a kitchen, four ordinary bed-rooms, and a servants' room, besides closets and a bath-room.

GROUND Floor.—The principal entrance, in the western front, is through an open and side-lighted porch. A glazed door gives access to the lobby, which has also a light from the roof. The door, if desired, might be hung at the porch-entrance, and the side-lights of porch glazed. A passage, turning twice at right angles, from the lobby, leads to the back-door. From the left-hand
side of the lobby are entered a bed-room and the kitchen, and the stairs to the upper floor are ascended; whilst on the right-hand side is the parlour, having a store-closet, lighted from above, and a smaller closet. The parlour is one of those rooms of this floor which are partly within the roof. Closets are attached to the bed-room, as also to the kitchen: in the latter case, space under the stairs is turned to account as a larder—being lighted and ventilated. Connected with the passage to the back-door are the servants' bed-room (shut off), a w.c., and a place for coals. The parlour, bed-room, and kitchen, (each having windows on two sides,) are 9 feet in the clear height, whilst the remainder of the storey has a height of 8 feet; but as most of the ceilings in the house are partly sloped, heights stated must be taken as for the highest portions of rooms only.

Upper Floor.—Here are two bed-rooms, entered each by four steps from the top-landing of the stairs; whilst a third bed-room is reached through one of the two, as also are a lavatory and bath in a room between the second and third bed-rooms. Each bed-room has a fire-place. The stair-case is lighted by a triangular dormer-window at the landing. The bath-room has a skylight. The heights, in the highest part, are 8 feet for the bed-rooms and 7 feet for the bath-room.

The external walls are built of free-stone from the Giffnock quarries, which are distant about three miles by road. The walls are 2 feet in thickness, excepting at the back-entrance and servants' room, where they are 18 inches. The general facing is in courses, 5 inches in height, pick-faced, the joints being carefully pointed with hydraulic-lime mortar. The base-course, coins, mullions, transoms, and heads of windows and chimney-stacks, are rubbed or polished on the face. The coins, each 10 inches in height, project one inch. In the principal chimney-stack, the shaft itself, above the mouldings, is in courses of a single stone each, hollowed for the four flues. The fire-places and flues are built in stone; but the rest of the work of internal partitions is of brick, excepting in the upper floor, where only the central partition is of brick (9 inches), the others being of timber-quartering, lathed and plastered. The internal brickwork of the ground floor, in partitions, is 9 inches in thickness, excepting where inclosing the servants' room, closets, and coals, where the thickness is 4½ inches. Both in the external and internal walls, there is a course of Caithness paving-stone below the splay of the base or plinth. Protection from damp that might pass through the walls is afforded by the widely-projecting eaves, in addition to the pointing.
The lintels, the barge-boards, finials, and pendants, the external doors, and the window-sashes and frames, are of American red pine. The general carpenter's work is of Quebec yellow-pine, and the joiner's work of St. John yellow-pine. The window-sashes have the ordinary arrangement internally; that is to say, they are "double hung" in two sashes,—though the external appearance is that of double- or triple-light windows; but, in the upper floor, the triple-light windows have sliding-sashes to the centre-light only, the sashes of the side-lights being fixed. The glazing is of the best crown-glass. The windows of the ground floor have shutters.

The roof is a simple arrangement of common-rafters, of 6 inches by 2 inches scantling, or 5 inches by 2 inches, according to the span, and set 18 inches from centre to centre. The ceiling-joists of main floor are 8 inches by 2 inches. The roof-covering is of full-sized Easdale or West Highland slates, in courses straight and escalloped. Each gable, with or without ornamental barge-board, is terminated by a moulded coping, 1½ inch thick, under which the edge of the slating is carried, and the space between pointed with Portland cement. The ridges, and the flashings round chimneys and roof-lights, are covered with lead of 5 lbs. to the foot; and the valleys are lined with lead of 6 lbs. The eaves-gutters and rain-water down-pipes are of cast-iron; and wherever the continuity of the roof is interrupted by gablets, lead-gutters fixed externally at a line immediately above the level of the ceiling-joists, and connected with pipes passing through the gablets, conduct the rain-water from such disconnected parts of the roof to places where there are eaves-gutters and down-pipes. The small portions of the roof between the gablets, and below the line of the lead-gutters, have dripping-eaves; another portion has a valley-gutter.

The cost of the house was as here stated:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masonry and Brickwork</td>
<td>£346 13 0</td>
</tr>
<tr>
<td>Carpentry, Joinery, and Ironmonger's work, and Glazing</td>
<td>375 0 4½</td>
</tr>
<tr>
<td>Plumber's work</td>
<td>67 19 11½</td>
</tr>
<tr>
<td>Slating</td>
<td>40 0 0</td>
</tr>
<tr>
<td>Plastering</td>
<td>28 0 0</td>
</tr>
<tr>
<td>Painting (outside work only)</td>
<td>18 0 0</td>
</tr>
<tr>
<td>Marble Chimney-piece</td>
<td>5 0 0</td>
</tr>
<tr>
<td>Gasfitting and Bellhanging</td>
<td>10 0 0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£888 18 4</strong></td>
</tr>
</tbody>
</table>
FRIDAY BRIDGE PARSONAGE,
CAMBRIDGESHIRE.

EWAN CHRISTIAN, ARCHITECT, LONDON.

PLATES LIX. LX.

FRIDAY BRIDGE, where is the parsonage illustrated in these plates, is in the Fen Country, near Wisbech, in Cambridgeshire. The house was erected in 1861-62. The site of the building is nearly a dead flat; and, before the works were commenced, it was surrounded by large open drains or water-courses—some of which it was necessary to fill-in, in order to form a garden. With the circumstances of the site were involved peculiar difficulties as to the foundation, the supply of water, and the drainage. The principal rooms have an aspect almost due south. There was no view or prospect worthy of consideration. Owing to the nature of the subsoil, it was necessary to keep the ground-floor-level high; and from the same circumstance, a sunk-basement storey was impracticable. The offices are therefore arranged in a manner which gives a somewhat extended appearance to their portion of the plan.

The decorative character of the building is Gothic, modified somewhat from the old domestic style, more especially as to the treatment of the window-heads. The comparative plainness of houses of this class results from considerations that have been referred to in the description of Goldhanger Rectory.

The main block of the building covers an area of 50 feet by about 44 feet, exclusive of the gabled projection and bay-window in the centre of the south front; and it consists of two ordinary storeys, besides attic-rooms which are entirely within the roof. The out-buildings, with the stables returned at their end, run eastward 60 feet or more. There are, in the house, three day-rooms, nine bed-rooms, one dressing-room, as well as extensive offices.
The internal arrangements are compact and convenient. The thoroughfares are so contrived as to keep the family- and servants’-apartments distinct from one another.

GROUND Floor.—The floor-line of the main-block is 2 feet 3 inches above the original level of ground; and a grass-terrace is formed on three sides. The principal entrance is in the west-front, through a recessed porch having a pointed arch as the opening to it. The door, placed on the right within the porch, gives access to a corridor that is lighted at the end, or from the front, and which leads to the staircase-hall. This last is in the centre of the block, and is lighted from the top. In the corridor are the doors of the study and of a store-room. The study has windows on two sides, and, being close to the entrance, and to a certain extent disconnected from the family-part of the house, is well adapted for a business-room. The store-room is lighted partly from the porch, and partly from the scullery. In the hall are the doors of the drawing-room and dining-room, and a cloth-covered door shutting off the offices. The drawing-room is lighted by a large bay-window, at its end, in the south front. The dining-room is lighted from the south and east; and in this room is a serving-door, and hatchway, at the end of the office-passage, and within short distance of the kitchen. The kitchen and scullery are to the north-west of the office-passage, and next to a large inclosed court-yard, into which there is a way out from the scullery. There is also a back-entrance from the court, into the office-passage; which passage is lighted by a fan-light over the door. The cook’s pantry is close to this door. In the kitchen are a closet, next the fire-place, and a dresser with drawers and shelves. The store-closet and the different pantries are fitted with shelves in the usual manner, as indicated in the ground-plan. The scullery is furnished with sink and copper, and with a baking-oven of brickwork. The scullery-window in the principal front has its sill raised above the level of sills of the windows of the living-rooms; so that the interior of the scullery does not come disagreeably into view from the exterior; whilst outlook is not altogether interfered with.

The court-yard serves conveniently for both kitchen-department and stables, without division. It is entered by large gates from the west, or principal, front, and also at the opposite end by a door close to the gig-house, and from the garden by a passage near to the stable.

In the office-passage, and close to the dining-room hatch, is a china-pantry,
with an attached closet under the back-stairs. There are two steps down to the kitchen-door; and beyond this there is a transverse passage, out of which the back-stairs ascend, and in which is the door of the wine-closet. The latter passage continues, with descent of two or three steps, to a beer-cellar and a larder, getting light close to its end, from the south, just beyond the main block of the building. The position of the larder, at the end of the line, allows of a through-current of air; for which, in addition to the window northward, four apertures, with air-bricks, are provided to the south. Beyond this portion of the offices are the outbuildings, including the coal-shed, the ash-pit and the servants’ w.c., and the garden w.c. The latter conveniences have their entrances carefully shut off, whilst made accessible from opposite sides of the house.

The stable is for two horses. Attached to it is a small harness-room, with fire-place, and with a borrowed light from a lobby; and then, at the north, is the gig-house. East of the stable-block is a piggery; and there is also a dung-pit, with a shoot into it directly from the stable. The stalls of the stable are formed with cast-iron heel-posts, and top-and-bottom rails with boarding filled-in between; and each has a cast-iron rack and an enamelled manger. The walls of the harness-room are boarded to a height of 6 feet.

The kitchen-and-stable court is fenced in along the north, with oak-posts and rails, and split-pales of larch. The gates are framed, ledged, and braced of oak, covered with narrow deal-boards.

The principal rooms of the ground storey of the main block, are in height 10 ft. 6 inches; whilst the kitchen and scullery are 11 ft.

CHAMBER FLOOR.—Here there are four principal bed-rooms, (to one of which a dressing-room is attached,) and one small bed-room—these being reached from the wide landing of the principal staircase. There are two other bed-rooms on a lower level of floor, at the top of the back-stairs. These stairs are very well lighted by windows in two storeys. Only one bed-room in the house is without a fire-place; but the dressing-room has none. A w.c., which is the only one in-doors, is placed in the passage leading to the back-stairs. This passage is lighted from the principal staircase by an arched opening. The principal rooms on the floor are 10 feet in the clear height, excepting one (over the entrance-porch) which is 9 feet 6 inches; whilst the two secondary bed-rooms are 9 feet in height.
Attics.—These are reached, not by the back-stairs, but from the landing of the principal staircase. There are two bed-rooms, each lighted by a window in a gable; and there are three ways into the roof, whereby, in addition to the access to the cistern, space is gained for lumber. The arrangement of the top-light of the staircase appears in the section, and in two of the elevations. The attic bed-rooms are in height 9 feet 6 inches in the highest part.

The external walls, and the chief internal-partitions, are of brickwork, built in old English bond. The general facing is of picked white bricks, from Whittlesea, coursed with bands of red brick, and having voussoirs of white and red bricks, alternately in the arches of doorways and the window-heads. The window-sills are of hard moulded bricks, set edgewise, in cement, with a double row of tiles beneath them, projecting beyond the face of the walls to protect the latter from the wet. The plinth is of “quarter-round” moulded bricks; and the eaves and the verges of gables are formed of projecting courses of moulded bricks set on edge, and anglewise, on a “stretching-course.” The chimney-shafts, which have angular projections, have heads formed of projecting courses of bricks and tiles; and each flue is terminated by a length of stoneware-pipe, of 11 inches diameter, standing 6 inches above the brickwork.

To guard against settlements from the nature of the subsoil, great precautions were taken in the foundations. The footings were formed of very hard bricks laid in cement, and having a wide spread at the base; each course of them was carefully bonded with rows of hoop-iron, laid along the walls, about 2½ inches apart; and the internal walls were united to the outer ones by crossing the iron bond. The efficiency of these precautions came to be tested. Two of the ditches that were filled-in ran parallel with the north and south fronts of the house, within a few feet of the walls. When the southern ditch was filled, the house leaned over, bodily, southwards, so much that it is now 4 inches out of the perpendicular; whilst there has been no crack or flaw in the walls.

The provision to prevent rise of damp in the walls consists of a course of asphalt, 1 inch thick, over the whole of them, internal and external, laid just above the level of the finished ground-line. For ventilation under the wooden floors, the provision, besides that of the common air-bricks in external walls, consists of honeycombed arrangement of the work of the sleeper-walls under the ground-floor.
Baltic timber is used for the carpenter's work generally, yellow deal for external joiner's work, and white deal generally for the interior; whilst the panels and mouldings of the doors are of yellow pine. The floors are, with one or two exceptions, laid with 1 4-inch battens. They are single-joisted and herring-bone strutted. The internal partitions, not of brickwork, including the upright sides of attic-rooms, are of timber-quartering, trussed where requisite. Lintels to openings are, as usual, 1 inch in thickness for each foot of their span. The wall over the bay is carried by a bressummer, 12 inches square, having a bearing of 12 inches at each end, on stone templates, and formed, in the usual manner, of two sawn-and-reversed pieces and a central flitch of 5 8-inch rolled iron, the whole bolted together.

The windows of the attics, the w.c. in the chamber-storey, and the offices, have casements and solid frames; the others have sashes, double-hung in deal-cased frames, with oak sills. The windows of the day-rooms are glazed with "patent" plate-glass, of 21 oz. to the foot; and the others have "extra-stout" sheet-glass. The frames of the larder, pantry, and store-room windows are covered with perforated zinc, to exclude flies. There are shutters to the windows of the principal rooms, the corridor, and the kitchen; the other ground-floor windows have iron guard-bars. The arrangement of the roof of the main-block is indicated by dotted lines on the plan of the attics; and its simple arrangement of timbers will be sufficiently clear from the section. The roof is hipped at each angle of the building, and has ridges parallel with each front, including a central ridge, somewhat higher than the others, and running north and south from one gable to another. The water of the internal slopes, which are less steep than the outer ones, flows to two "hopper" gutters, lead-lined; and is thence conducted to the cistern. A trap-door in the roof gives access to these gutters.

The roof is covered with Portmadoc (Welsh) slates, "Countess" size, fastened with copper nails to yellow-deal battens, and pointed inside. The ridges are covered with red ridge-tiles, alternately plain and crested. Hips, valleys, and flashings, are formed with lead. The verges of the gables are finished with cement.

This may be the proper place to mention provisions for water-supply and drainage. The rain-water is conducted by glazed-stoneware pipes, of 4 inches diameter, to filtering-receivers, through which it passes into a tank, capable of
containing 5000 gallons, and constructed in compartments. Into the same receptacle is conducted water from the roof of the church; and upon the contents of it the house is dependent for the supply for culinary purposes and drinking. The arrangement was not that originally intended. On commencement of the building, a well was sunk, which for some time yielded good water: but soon after the bursting of the Middle Level Sewer-outlet, when the Fen Country was inundated, the water became brackish; and, though many methods of sweetening it were tried, it remained undrinkable. No complaints of the present supply appear to have been made. The water of the well, however, serves for some purposes. The water is drawn from the tank by a strong force-pump fixed in the scullery, and forced to a lead-lined cistern, holding 300 gallons, which is placed over the w.c. of the principal chamber-storey, and is accessible from the inside of the roof. To the same cistern, part of the rain-water from the roofs is conducted direct. From the cistern the water is laid on to the scullery-sink and the several w.c.'s. The stable has an independent supply. The outfall for the house-sewage is necessarily into a cesspool, which is placed at some twenty yards' distance from the house. This receptacle is water-tight, and has an overflow into a ditch that is north of the site. The drains are of stoneware-piping.

The cost of the house was as follows:—

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Contract</td>
<td>£1380</td>
</tr>
<tr>
<td>Extras</td>
<td>25</td>
</tr>
<tr>
<td>Tank and Filters</td>
<td>53</td>
</tr>
<tr>
<td>Road-making, Gates, Fencing, and filling-in Ditches</td>
<td>253</td>
</tr>
<tr>
<td>Total,</td>
<td>£1920</td>
</tr>
</tbody>
</table>

This includes grates, chimney-pieces, paperhanging, painting, and all fittings to make the house complete for habitation; and it must not be forgotten, in the comparison with other examples, that the sum also includes stabling.
COTTAGE AT ROSENEATH,
DUMBARTONSHIRE.

JOHN BAIRD, ARCHITECT, GLASGOW.

PLATE LXI.

This Plate represents a cottage erected in 1863, near to the village of Roseneath, for the residence of the parish-schoolmaster. The locality, on the western side of Gareloch, is finely wooded and sheltered. The principal front of the building looks south. The main block occupies an area of about 36 feet square. There are two small additions on the ground-floor level, containing, one, the front-, and the other the back-entrance. The door of the principal entrance is in two leaves; and each half folds back into a recess, to expose an inner door, which is glazed. There are two storeys to the main block, the upper one entirely within the roof. The additions are of one storey. There are two day-rooms, four or five bed-rooms, and a sufficiency of offices and closets.

Ground Floor.—The principal entrance, facing the same way as the front, is at the west. With the outer door open, as above described, the arrangement would be that of an outer and an inner porch. The latter is side-lighted; and attached to it is a w.c., in a quadrant-shaped addition. Turning to the right, a lobby leads from the porch to the foot of the stairs to the attic-floor. In this lobby are the doors of the parlour and one bed-room; whilst at the end, near the foot of the stairs, are the doors of the dining-room and the kitchen. To each of the day-rooms there is a closet attached; and there is one under the top-flight of stairs. Attached to the kitchen is a servant's bed-closet. The back-entrance to the house has a lobby, in which are the kitchen-door, and doors to a wash-house and a pantry; both which last-named offices are in the eastern addition to the main block. The height of the rooms on this
floor is 10 feet 6 inches in the clear, with the exception of the servant's bed-closet, which is under the landing between the two flights of stairs.

Attic Floor.—There are three bed-rooms here, and a small closet. Each bed-room has a fire-place. The height of the rooms in the highest part is 7 feet 9 inches.

The external walls are constructed of whin-stone rubble, with free-stone dressings. The stone of the first-named kind is from a quarry in the neighbourhood; the other is from Dumbarton, ten miles distant, the carriage being by water. The rubble is simply pointed with hydraulic lime: the dressings are tooled. The window-heads and sills are each of a single stone, excepting in the case of the four-light window. The base or plinth projects 3 inches. The internal partitions are of wooden quartering, lathed and plastered. The roofs and flooring are of ordinary construction. The windows are fitted with sashes, but have no shutters. The material used in the carpenter's work is red pine, and in the joiner's work yellow pine. The sashes are glazed with sheet-glass.

The roof-covering is of full-sized West Highland slates, laid on boarding. The water from the roof flows to caves-gutters, which are formed each behind a fascia-board, spiked to the ends of rafters; and is then conducted downwards by pipes. The projections at the gables, and at the ends of lean-tos, are carried by short lengths of rafter, whilst a wooden coping covers the ends of the slates, and repeats the lines of the caves. The gutters are lined with lead. The ridge-covering, valley-linings, and flashings are of zinc. The chimney-caps are of terra-cotta.

The cost of the house was as here stated—

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mason's work</td>
<td>£221 14 9</td>
</tr>
<tr>
<td>Carpenter's and Joiner's work, and Glazing</td>
<td>219 16 5</td>
</tr>
<tr>
<td>Slater's work</td>
<td>30 0 8</td>
</tr>
<tr>
<td>Plasterer's</td>
<td>32 8 8</td>
</tr>
<tr>
<td>Plumber's</td>
<td>30 18 2</td>
</tr>
<tr>
<td>Bells and Bell-hanging</td>
<td>3 0 0</td>
</tr>
<tr>
<td>Painting external wood-work, three coats</td>
<td>8 10 0</td>
</tr>
<tr>
<td>Chimney-caps</td>
<td>8 0 0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£254 8 8</strong></td>
</tr>
</tbody>
</table>
FARM-HOUSE AT BLUBBERHOUSES,
NEAR HARROGATE, YORKSHIRE

E. B. LAMB, ARCHITECT, LONDON.

PLATE LXII.

BLUBBERHOUSE HALL is the name of the building illustrated in this plate. It is situate in the township of Blubberhouses, about six miles east of Bolton, in Yorkshire, and eight miles west of Harrogate. It was erected about the year 1856. The neighbourhood is hilly and very picturesque. There is a considerable slope from the entrance-front, which faces south, down to the main road. The plan is specially devised for the requirements of a farm-house in the locality. There are separate staircases to the men's and women's dormitories, and the kitchen is large, since the custom of that part of the country is for the family and domestics to take their meals together in the kitchen. The decorative character of the house is that of the late Tudor style of architecture. The ground covered is about 43 feet by 31 feet, for the main block; with a projection, at one end, of 19 feet by about 10 feet; and other projections, including one of 2 feet 6 inches, where the porch is. There are two storeys besides the attic-storey, which last is entirely within the roof. There are two sitting-rooms, as well as the kitchen, and six bed-rooms, besides the men's and women's dormitories.

GROUND Floor.—There are two entrances to the house, from opposite sides; the back-entrance having close to it the stairs leading up to the men's dormitory, and being near to the kitchen-door. The principal entrance is through an open porch, where the door gives access to a passage, at the end of which is the principal staircase, which goes up to the women's dormitory—serving, besides, for the principal chamber-storey. Under the principal stairs is a w.c.; and a similar convenience, shown on the plan of the chamber-floor, is attached to a
landing, placed four steps below the latter floor. A transverse passage connects the staircases, as well as the front entrance-passage with that of the back: the door of the principal sitting-room, at one end, faces the door of the kitchen at the other; and in this passage is the door of the second sitting-room. Attached to the kitchen is a scullery, having a fire-place. The kitchen is lighted by a central triplet and two side-lights. These are in a projecting bay; at the sides of which, externally, the projection of the gable of the storey above is carried on corbels. The principal sitting-room has also a bay-window.

Chamber Floor and Attics.—Four of the bed-rooms have fire-places; and there is a fire-place to each of the dormitories. One of the two other bed-rooms, of small size, is partly within the roof of the porch. Each of the two principal storeys is 9 feet in the clear height, from floor to ceiling.

The external walls are built of a coarse grit-stone, hard and durable, from adjoining quarries. The work is irregularly coursed and bonded; the stones of the quoins and discharging-arches differing from the others only in dimensions, and in being roughly tooled; whilst the rest of the work is hammers-dressed or scabbled. The partitions are of brick, excepting those of the attic-floor, which are of wooden quartering, lathed and plastered. The roof (of which the arrangement is indicated by dotted lines on the Plan of Attics) is covered with thin slabs of stone, as usual in the neighbourhood; the breadths of the courses diminishing from the eaves to the apex of the roof. The water from the roof drops from the eaves. A course of slate in the walls prevents rise of damp.

Water is laid on, to the top of the house, from a spring, in a hill, opposite, distant about three-quarters of a mile; and the water is constantly running to the cisterns and through the drains.

The glazing is in diamond-shaped quarries, in lead, in casements.

The stone being on the spot, and the carting of materials being done by the farmer, a statement of cost would scarcely serve for guidance in other works.
VILLA ON SYDENHAM HILL,
NEAR LONDON.

BANKS & BARRY, ARCHITECTS, LONDON.

PLATES LXIII.—LXV.

Our Plates here represent a larger and more costly building than any other illustrated in this Work. The villa, called Fairwood, is the residence of Mr. D. H. Stone, an alderman of the city of London. It is situate on Sydenham Hill, about a mile, to the north-east, from the Crystal Palace, and from the house shown in Plates LI. LIV. The crest of the hill, for the whole distance, is occupied by villas, of which the majority possess considerable architectural character, combined with the advantage of the fine view north-westwards over London. In the present case, as in that of the other house referred to, the Dulwich Wood lies beneath; but more of eastern London is seen, St. Paul's Cathedral coming well into view from the garden-front.

The building was erected in 1863, and is of the precise character of the Elizabethan style of architecture.

The design was made, as in the other case, specially for the site. The hill-side, however, is still more steep than where the house of Mr. Banks is situate; whilst, as there is here no road in the rear, the west front of this house is seen only from the garden, and from roads at a considerable distance.

Exclusive of the stable- and coach-house, and of the conservatory, the plan covers an area of nearly-square form, which may be stated as about 50 feet depth by 46 feet frontage, measuring in projections. Including the basement, which, on the garden-side, is entirely above ground, there are three principal storeys, besides a storey wholly within the roof, and a “tower-room.” There are three
day-rooms, or reception-rooms, ample offices, three principal bed-rooms, each of
which has a dressing-room attached, and four or five other bed-rooms, besides
a bath-room and a linen-room. There is no separate servants' staircase. Two
of the bed-rooms have very large bay-windows, above similar windows to the
rooms below. The north-east angle of the building has the form of a square
tower, carried up one storey higher than the rest of the structure. It is
terminated by gables of the Elizabethan character on the four sides, and
by a high truncated roof.

Ground Floor.—The front-entrance to the house, from the east, leads into
a hall which forms the base of the tower, and is lighted by a fan-light over
the door. Close to this entrance, and between the main building and the
stable, is a door at the top of steps which lead down to the basement-
entrance. From the entrance-hall a side-lighted vestibule is reached; attached
to which is a w.c. Turning to the left, the staircase-hall is entered. It is
nearly square, occupies a central position, and is lighted from a "lantern"
at the top (as shown in one of the sections, Plate LXV.), as well as from the
vestibule. From this hall open the doors of the drawing-room, library, and
dining-room, and of a dinner service-room; which last is close to the top
of stairs from the basement. There being a door into the dining-room from
the service-room, dishes are carried that way; whilst the service-room itself
has all requisite fittings. The conservatory is connected with the dining-
room by a glazed porch, as well as with the drawing-room; so that the whole
may be made to form one suite. From the porch between the dining-room
and conservatory, there is a descent to the garden. The stated dimensions of
the drawing-room and the library are much increased by the bow-windows.
From the form of these windows the full advantage of the site is derived,
in the matter of prospect. The disposition of the rooms and passages pre-
vents draughts. The height of rooms on the ground-floor is 12 feet.

The stable has two stalls and a loose-box. Opening from the stable is
the harness-room; at the end of the stable is a coach-house; and over the
whole is a loft for hay. The stable-yard is fenced off from the ground in
front of the house. The line of division takes the quadrant-form on plan;
whereby considerable additional frontage is given to the garden-inclosure,
which is of ornamental character; and space is obtained for a second gate,
allowing a carriage to pass in and out when required.
Basement.—Here are a kitchen and a scullery, connected by a passage, and having their windows wholly above-ground: there are also a small larder, a place for stores; a butler’s-pantry, lighted from a small sunk-area, with a plate-room and presses; wine- beer- and coal-cellars; and a w.c. The walls not above ground are protected from damp, by dry areas, as shown in the plan and in one of the sections. The stairs, with the space next the external entrance to the basement, are well lighted from the end of the building. The rooms of this storey are 10 feet 6 inches in the clear height. Beneath the conservatory are the furnace, the place of deposit for garden-tools, and the coal-hole for the conservatory. In the basement of the stable-building are spaces for manure, and stores; and there is another w.c.

Principal Chamber Floor.—No detailed description of the bed-rooms and dressing-rooms on this floor is necessary; but attention may be directed to the plan. There, will be noticed the convenient disposition of the bath-room, w.c., and stairs to attics; also the completeness of the lighting and heating arrangements to the three dressing-rooms, as well as to the bed-rooms of this floor and that above; and the arrangement of one of the bed-room suites, with lobby of entrance, and a closet, for clothes, attached. The storey is 10 feet 8 inches in the clear height.

Attic Storey.—The three larger bed-rooms and one small one, and the linen-room, are reached by a passage that runs partly round the square space occupied by the “flat”-and-“lantern” over the staircase. To this space there is a way from the passage, to allow of cleansing of glass and removal of snow. The attic bed-rooms are 8 feet in the highest part. The “tower-room” has its floor at a somewhat different level.

The materials used in the house, and the manner of construction, are precisely similar to what have been described in the case of the villa which is the subject of Plates LIII. LIV., with these exceptions, that arches with Staffordshire blue-bricks are not used in the main-building, and that the roof-covering has not quite the same character decoratively. It is important, however, to notice that there is much more mason’s work in the house now before us, than in the other.

The rain-water is conducted from the central space by trough-guttering, through the roofs, to the main-gutters; which are behind parapets on the
external walls. Thence the water descends, externally, by pipes; which there
are in the greater number of the re-entering angles of the fronts. These pipes
are painted red, to accord with the brickwork, and have been omitted in our
elevations.

The cost of the house was as follows:—

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of Contract (which was for the whole of the work, including plain painting, but exclusive of what is undermentioned)</td>
<td>£5337 14 6</td>
</tr>
<tr>
<td>Gas-piping and Brackets</td>
<td>61 13 10</td>
</tr>
<tr>
<td>Decorative Painting</td>
<td>91 4 1</td>
</tr>
<tr>
<td>Marble Chimney-pieces (other Chimney-pieces being included in the contract)</td>
<td>87 0 0</td>
</tr>
<tr>
<td>Stoves, Kitchen-range, and Bath</td>
<td>197 11 9</td>
</tr>
<tr>
<td><strong>Total for House, Stabling, and Conservatory</strong></td>
<td><strong>£5775 4 2</strong></td>
</tr>
</tbody>
</table>

Fencing the grounds formed an item of £68, 9s. 6d. additional.

The great cost of this building, compared with other examples illustrated in this Work, is due, in part, to the increased number of decorative features, but more especially to the large excess of London prices over those prevailing in the country.
H O L M W O O D,
CATHCART, RENFREWSHIRE.

A. & G. THOMSON, ARCHITECTS, GLASGOW.

PLATES LXXVI.—LXXII.

In these Plates we illustrate, with some minuteness, a house that is remarkable for the amount of study manifested in its details and in the grouping of features of its exterior. In decorative character, and in some of its structural arrangements, it resembles the double villa at Langside, designed by the same architects, and which is illustrated in Plates XXXIX—XL. To the description of that work the reader may refer for information as to some of those details wherein resemblance is obvious, repetition here being unnecessary.

The house called Holmwood was erected in 1857–58. It stands on an elevated site, at a bend of the river Cart, about three miles south of Glasgow. The principal front faces the north-east, the direction being governed by neighbouring roads and the formation of the ground. The banks of the river at this point are steep and rocky, and covered with a luxuriant growth of underwood and large trees.

Looking from the front of the house towards the river, the tops of the more lofty trees lining the Cart appear above the bank just beyond the lawn and flower-garden, the whole forming a rich foreground to the landscape, in which the old ivy-covered castle of Cathcart, rising above a clump of trees on the opposite bank, is a prominent object among the wooded heights and grassy slopes, that extend on each side, and almost encircle the site. Towards the north-west the windows of the house command the view of a long reach of cultivated undulating country, taking in the western suburbs of
Glasgow, with other more distant towns and villages, and bounded in the extreme distance by the Western Highlands.

The style of the architecture is an adaptation of the Greek. Country houses in this style usually consist of one cubical mass, with sometimes a wing on each side. In the present case the building is picturesquely treated, and is composed of several masses, varying in size and character, each part designed to express externally its purpose in the general plan. The aim, in the design, may be said to be exemplified in the following elements of the composition:—first, the dining-room distinguished by largeness of proportion, loftiness, and simplicity; second, the parlour, the usual sitting-room, provided with a large projecting circular window, commanding a comprehensive view, and serving, by its form and the elegance and richness of its details, as a fitting spot in which to establish the ladies’ work-table; third, the drawing-room, in the upper floor, rendered equally unmistakable by the extent and arrangement of its multiple window; and, fourth, the circular lantern over the principal staircase, which is the central feature of the design, and repeats the form of the parlour-window. The wall inclosing the kitchen-garden has been brought into the general composition, with the view of combining the stable-buildings with the house; whilst the outer boundary-wall and the gates have also been studied with the object of enhancing the general effect. The predominant horizontality, in the lines, gives the effect of extent to the whole.

The relative positions of the buildings are shown in the miniature block-plan (Plate LXVIII), and in the front elevation on the same sheet; whilst the gates and outer boundary appear in the view (Plate LXVI).

The house covers a large area; which is of irregular form; but only a small portion of this space has other than one-storied building upon it. The length of the front-range of building may be stated as about 70 feet; whilst the offices extend back from the front about 95 feet. The more lofty portion of the house is of two storys: there is no underground-basement. There are three day-rooms, or reception-rooms, and seven bed-rooms, in which are included two dressing-rooms that might have beds in them. Some of the bed-rooms are in the ground-floor. The house was designed for a small family; but its plan provides a more than ample amount of convenience.

Ground Floor.—The main-entrance to the house is very nearly in the middle of the front; but only in the accessories of the entrance has the front that
characteristic which has been called the symmetry of corresponding halves. A recessed porch, with an outer door that can be folded back into recesses in the day-time, is reached from an external landing at the top of a flight of steps; and from this a glazed door gives access to the hall, or rather to a small vestibule attached. On the left of the vestibule is a retiring-room, furnished with a wash-hand basin having a supply of hot and cold water, and with a looking-glass, a sofa, and clothes-pegs. Attached to this room is a w.c., under the lower flight of the principal stairs: it is lighted from the vestibule, which is itself lighted through the entrance-door; and the ventilation is by means of a fine carried up in the wall, to near the base of the circular lantern, where the outlet is concealed. Just within the house, the line of entrance turns to the right; and, opposite the retiring-room, it enters the side of a hall or corridor, near to one end, where there is a window to light the length of the corridor, corresponding with the window on the other side of the porch. The hall has a fire-place, and a recess for a hat-stand. At the further end, or opposite the window, is the way to the kitchen-department; the lobby of which is shut off by a door. The dining-room is to the right, entered by a door near to the end of the hall; opposite which is an opening leading into the staircase-hall. The several openings and recesses of the hall, as will be seen by the plan, are disposed symmetrically. Connected with the staircase-hall are the doors of the parlour, a small store-closet, and a lobby that forms the access to a suite of bed-rooms. The staircase-hall is lighted from the top by the circular lantern referred to in our particulars of the external character of the house. This lantern is made highly decorative, internally, by chimenee, and rich ornamentation of the fascie and mouldings. The details here, as well as those of the principal rooms, are precisely shown in the plates,—wanting, however, the colour,—which, in this house, plays an important part in the internal effect. The stairs are divided into short flights. The railing is of mahogany, carved into a scroll-pattern, wherein the Grecian character of the other details is maintained.

The dining-room, 16 feet in height, has a three-light window at one end, occupying almost the entire width of the room: the fire-place is disposed in the same wall as the door, so as to be out of the draught; and at the end of the room opposite the window are a recess for the side-board, and a serving-way from the butler’s-pantry. The arrangement of the pantry
presents unusual facilities for service. The pantry has communication, by a hot-closet, directly with the kitchen, and by lifting-sashes directly with the scullery. Dishes for the table are passed at once through the former: plates and dishes from the table are re-passed to the scullery, through the latter. The parlour, 11 feet 3 inches in height, and nearly square in form in the main portion of its plan, has its available area largely increased by the circular projecting-window, which is 10 feet 8 inches in diameter. Opening from the parlour is a store-closet, fitted with a dresser, drawers, and shelves, and lighted by a window in the end of the house.

All the joiner's work in these two rooms, in the drawing-room which is in the floor above, and throughout the house, is of yellow pine, varnished; and in the dining-room and the drawing-room, the doors, with other fittings, are enriched with fret-ornaments cut in mahogany and fastened on. The dining-room fireplace has a massive mantle-piece in black marble, enriched with gilded incised ornament. The side-board, in the same room, is of white marble, with enrichments incised and gilt; and the back and ends of the recess have mirrors in mahogany framing, decorated with rosewood frets. The glass of the mirrors has a surface-enrichment of gilded ornaments. The sideboard and its accessories are fully lighted from a glazed opening in the roof, placed at such height as not to be seen from the room. The upper portion of the walls of this room is decorated with a continuous series of subjects selected from Flaxman's illustrations of the Iliad, the figures being about 2 feet 6 inches in height, sharply defined in outline, and coloured brown on a blue ground.

It will be observed that the stone piers or columns in front of the dining-room and drawing-room windows, and also those round the circular window of the parlour, stand quite clear of the wooden framing of the glazed sashes.

The bed-room suite, on this floor, referred to as entered through a sub-lobby opposite the parlour-door, consists of two principal rooms, to one of which a dressing-closet is attached, and of an intermediate room that might be used as a dressing-room to either, or as an additional bed-room.

By the plans, as well as other drawings, it will be seen that the dining-room, the hall and vestibule, and the retiring-room, are the portions of the main building that are but one storey in height, but that the height
HOLMWOOD

of the dining-room block admits of an entresole comprising a linen-closet and a servant's bed-room with closet attached (this entresole being over the butler's-pantry and the scullery), and that there is a wine-cellar below ground in the same portion of the plan.

In the department of the kitchen and offices, the entrance-lobby from the chief portion of the house has leading out from it a china-closet, the butler's-pantry before mentioned, stairs (top-lighted) which give access to the entresole above, and to the wine-cellar below, and a passage, in which last are the doors of the kitchen, laundry, and cook's-pantry, and which leads towards the back-entrance of the house. The passage is lighted by a window at the farther end. The actual exit from the passage, into open air, is into a kitchen-court; from which there are two ways: one of them leads through the inclosed kitchen-garden, out by a door and steps, to the front of the house; whilst the other leads to the bleaching-green behind the house. Surrounding the kitchen-court, and covered by lean-to roofs, are several accessories of the house, including a wash-house, places for coals and roots, and a harder.

The kitchen is a distinct feature of the design, so far as having a separate roof, and reduced height. It is lighted by a window of five divisions, occupying nearly the entire length of one of its sides, where the dresser is placed.

The heights of the different rooms on the ground-floor vary considerably. The dining-room is 16 feet from floor-line to ceiling, as already stated; and the parlour, bed-rooms, and hall are each 11 feet 3 inches; the kitchen is 11 feet; and the butler's-pantry 9 feet.

Upper Floor.—On this floor is the drawing-room. The other rooms are two bed-rooms, a dressing-room or bed-room, and a bath-room containing a w.c. The drawing-room, which is 12 feet 6 inches in height in the highest part, occupies the space over the square portion of the parlour, together with that over its entrance and over the two closets. The space over the circular window becomes a balcony. The room is lighted by a group of windows which entirely occupy its end, there being five lights towards the front and one on each side. The interior of the room is highly decorated. (See the sections and the detailed portion of the wall in Plates LXXI. LXXII.) An enriched skirting, or dado, 26 inches in height, in wood, is carried round three sides of the room: between the window-lights, also at the sides of the doors and fire-place, and at intervals round the room, are placed square colonettes.
surmounted by a frieze, all of yellow-pine varnished, enriched with anthemions in mahogany. Six of the spaces between the colonnettes are further enriched by painted and gilt ornamentation; and the pannels thus formed are filled with paintings by H. Cameron, A.R.S.A., illustrating Tennyson's *Idyls of the King*. The centres of the sides are occupied, in one case, by the fire-place, which has a white marble mantel-piece having gilt incised ornament, and a mirror over it, and in the other case by the piano, over which is a mirror; whilst at the end opposite the window, is another large mirror, with a decorated marble-slab in front supported by chimere. The bed-rooms and bath-room are separated from the staircase by the arrangement of a recess with lobby. The clear heights of the rooms on this floor are, for the drawing-room 12 feet 6 inches, as mentioned, and for the principal bed-rooms 11 feet 3 inches. The servants' bed-room in the entresole is 7 feet in height.

The material of all external walls is free-stone, from Giffnock quarries, distant about a mile. It is set as irregularly coursed rubble, hammer-dressed on the face; and the joints are pointed with cement, line-drawn, and finally painted with white lead. The dressings are tooled: rubbed or polished work has been avoided throughout. A course of Caithness paving-stone is built into the walls to prevent the rise of damp. There is a considerable amount of decoration in capitals to columns and piers, and in incised lines and ornaments; it is well shown in the double-Plate LXIX. LXX. The external walls of the main building are 2 feet in thickness. Internal partition-walls, where of stone, are also 2 feet; but the partitions of ordinary character, between rooms, are of brick, excepting in the upper floor, where unsupported below, and where they are of timber-quartering trussed as requisite, and lathed. For inner lintels over openings, and for all outside-woodwork, Quebec red-pine is used. The rest of the carpenter's work is of American yellow-pine. The flooring-battens and the other joiner's work are of St. John yellow-pine. The bressummer carrying the wall over the opening between the parlour and its circular window is of cast-iron.

The framing and covering of the roof, including the eaves and gutters, are similar in materials and construction to those of the double villa at Langside already referred to; though the present plates show the eaves and gables somewhat more clearly. The peculiarity of formation of the chimney-cap, shown at the corner of Plate LXIX. LXX., meant to assist the draught, as
well as for decorative effect, should be noted. The description of the Langside Villa, besides serving for particulars of the roofing, may also serve for those of the arrangement of the window-sashes (pp. 48, 49). The interior decoration of Holmwood is fully illustrated in Plates LXXI. LXXII.

The cost of this house was as follows:—

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masonry and Brickwork</td>
<td>£976 10 9</td>
</tr>
<tr>
<td>Carpentry and Joinery</td>
<td>722 16 5</td>
</tr>
<tr>
<td>Plasterer's ,, (including much ornament),</td>
<td>202 1 9</td>
</tr>
<tr>
<td>Plumber's ,,</td>
<td>255 11 4</td>
</tr>
<tr>
<td>Glazier's ,,</td>
<td>83 10 8</td>
</tr>
<tr>
<td>Chimney-caps</td>
<td>32 0 0</td>
</tr>
<tr>
<td>Marble Chimney-pieces (ten in number), and Marble Sideboard.</td>
<td>153 16 0</td>
</tr>
<tr>
<td>Encaustic Tiles for Vestibule and Hall,</td>
<td>31 10 0</td>
</tr>
<tr>
<td>Ironmongery and Bell-hanging</td>
<td>67 16 6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£2608 4 11</strong></td>
</tr>
</tbody>
</table>

**Stable, Coachman's House, &c.:** As shown in the general elevation and block-plan, this building is connected with the house by a screen-wall of the same kind of masonry as the rest, and thus forms an essential part of the grouping of the main front. The stable-court is entered by carriage-gates from the principal front, and in the rear there are a green-house, cow-house, and other accessories. Nearly the whole of the floor above the stable and coach-house is appropriated as a coachman's residence, which is reached by an external stone-staircase. This house includes a parlour and a kitchen, a bed-room, and two recesses for beds, attached to the kitchen, as well as a small closet and an entrance-lobby. The rooms are 8 feet in height. On the same floor is the hay-loft, over the harness-room, with a shoot into the stable.

The cost of the stable, green-house, and other out-buildings, shown on the block-plan, together with the high inclosure-walls, was as here stated:—

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masonry and Brickwork</td>
<td>£657 17 0</td>
</tr>
<tr>
<td>Carpentry, Joinery, and Glazing</td>
<td>221 4 3</td>
</tr>
<tr>
<td>Slater's work</td>
<td>15 13 3</td>
</tr>
<tr>
<td>Plasterer's ,,</td>
<td>34 0 0</td>
</tr>
<tr>
<td>Plumber's ,,</td>
<td>26 2 6</td>
</tr>
<tr>
<td>Asphalte</td>
<td>45 0 0</td>
</tr>
<tr>
<td>Ironwork in Stables</td>
<td>10 0 0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£1069 10 6</strong></td>
</tr>
</tbody>
</table>
Entrance Gates. These are shown in the perspective view, Plate LXVI. The width of the carriage-entrance, between the bases of the piers, is 11 feet 8 inches; and the similar dimension of each side-wicket is 4 feet 1 inch. The gate-piers are of freestone, and measure 9 feet 10½ inches in extreme height. The base-plinth of each is 2 feet 11 inches square on the plan, and 1 foot 8 inches in height: the shafts in each are 2 feet 8 inches square, below, and diminish to 2 feet 6 inches at the top; whilst each shaft is 7 feet 3 inches in height; and the blocking at the top is 1 foot 11½ inches square, and 11½ inches in height. The gates are made of pitch-pine, and are enriched with mouldings and ornaments, partly of the same material and partly of cast-iron. The lower pannels, which are bounded by bolection mouldings, are filled-in with framing in diagonal lines, formed of pieces 2½ inches square, and having iron-pateras at the intersections. The upper pannels are filled with anthemsions and other ornament in iron. The height of the gates is 7 feet 9 inches; and the thickness of styles and rails is 2½ inches. The cost of the four gate-piers was £40; whilst the gates themselves cost £35, 2s.
THE SYCAMORES,

OLD TRAFFORD, NEAR MANCHESTER.

H. J. PAULL, F.R.I.B.A.; } ARCHITECTS.  
OLIVER AYLIFFE; } MANCHESTER.

PLATES LXXIII.–LXXV.

Our present subject of illustration, "The Sycamores," is a house, erected in 1864–5, in Seymour Grove, in Old Trafford—a locality situate south-west of Manchester, and which is rapidly assuming the character of a suburb of that town. The site of the house, and the land immediately surrounding, are flat. The principal front of the house looks west, or towards the road, Seymour Grove, which runs north and south, that is to say, parallel with the front. The drainage in the Grove being at no great depth, the level of the principal floor of the house is raised six feet above the surface of the site.

The house being quite detached, each of its four fronts was studied for effective appearance; and there is no "back," as commonly the phrase is understood.

The general character and details of the design, decoratively, may be described as modernized domestic-Gothic, of the English variety, subordinated to the expression of the chosen materials; of which the most important is the red-brick of the locality. There are, however, no arched heads to the windows: lintels of stone are substituted; and some of the windows have mullions of the same material: otherwise, in the structure, stone is but sparingly used.

The building was specially contrived so as to get a considerable amount of convenience without extended area on the ground. Thus whilst the kitchen is on the ground-level, or nearly on the level of the principal floor
of the house, there are altogether three storeys in that portion of the area, which are practically within the height of two storeys in the other division of the plan: though, it is to be observed, one of the three storeys, containing one bed-room, is partly within the roof. There are, indeed, in the house, seven distinct levels of floor, including a basement proper, and an attic over the principal staircase (see the section, Plate LXXV.) There are three day-rooms, or reception-rooms, and a conservatory; five bed-rooms, to one of which a dressing-room is attached; and the attic, or room entirely within roof. The house occupies an area of which the principal dimensions are 60 feet from front to back, and 50 feet frontage, not including the projection, southwards, of the conservatory.

Ground Floor.—A grass-terrace extends along the western and southern sides of the house, and a portion of the northern; where are the windows of the principal rooms. The terrace is reached from the ground around the building by two flights of steps; whereof one to the entrance of the house is provided with gas-lamps, of ornate design. The terrace being crossed, there is an ascent of three steps, under a porch, to the front-door, placed in one of the re-entering angles of the plan. The external angle of the porch is formed by a stone column carrying a block for the support of one of the skew-backs of a pointed-segmental arch, the opposite skew-back being carried by the angle of the building. The porch is terminated by a weathered coping of masonry. The entrance into the house is, first, into a square vestibule; which receives its light through a glazed panel in the door, and through a fan-light. Beyond this, but separated by folding-doors in a glazed screen, is the hall itself; from which doors, to the right, lead into the dining-room and the breakfast-room, and a door to the drawing-room leads to the left. The two more important rooms have their principal windows in the front of the house; and each has a smaller window in one of its sides: in the case of the dining-room, this latter window has opposite to it that flight of steps by which the terrace is reached on the southern side. The large window of the dining-room is of three lights; that of the drawing-room is in an octagonal bay that is carried up to provide for a similar window of the storey above, and is covered at the top with a hipped projection from the main-roof. The breakfast-room, which, as each of the other rooms, is lighted by windows on two sides, has a way out of it into a conservatory; whence there is a
way, down-steps, into the garden. At the end of the hall, opposite the breakfast-room door, is the principal staircase, lighted from the north by a large window, which is filled with stained glass. Under the stairs are a lavatory and a lady's store-room; these form portions of a small addition to the main-building, covered by a lean-to roof. In the end of the hall, or opposite the front-door, is the door that leads to the kitchen-department, back-staircase, and back-entrance. From a landing within this door, a broad flight of steps, six in number, leads down to a similar space, where are the kitchen-door, the back-door opening into a court-yard, and the way down to the cellars. From the first landing, and parallel with the descending flight, is a narrower flight of stairs of ascent to the floor of the principal bed-rooms, and thence to the w.c., the bed-room of the third storey, and to the attie. This portion of the house is lighted by a window over the back-door, as well as by one at the side of the door. To the kitchen are attached a small pantry, and a scullery. The scullery, furnished with sink and copper, has a door into the court-yard; close to which are the back-door of the premises, an external w.c., and the place for ashes—the two last being screened by a wall, so as not to be seen from the breakfast-room. The principal rooms on this floor are 12 feet in the clear height; the kitchen is 11 feet; and the scullery is 13 feet 6 inches in the highest part.

Chamber Storey. The bed-room over the kitchen is reached from the first landing of the principal stairs. The upper or main landing in the one-pair floor, of the principal part of the house, has connected with it the back-staircase; attached to which is the w.c., entered from a landing three steps above the one-pair floor. The principal bed-room, to which the dressing-room is attached, has a window looking north, besides the bay-window. On the same floor is a room containing a bath and a lavatory; and there is also a housemaid's-sink. The principal bed-rooms are 12 feet in the clear height; that over the kitchen is 11 feet. The fifth bed-room, partly in the roof, and 10 feet in the highest part, is reached by the back-staircase. In it is the cistern. From the landing at the door of this bed-room, there is an ascent to the room that is entirely within the roof; and through this attic there is a way into the remaining portion of the roof. The attic is lighted through a skylight; and it might be used as a bed-room, though not so regarded in this description.

The Basement contains little more than a larder and the space for coals.
and wine. Under the conservatory is a potting-house, with a stove; this place is reached by steps from the garden.

The materials used for the walls of the house, and for the greater number of the partitions, are bricks. The bricks are of three kinds, namely, the "common" bricks of the locality, for the body of the external walls and for the partitions; the best pressed red-bricks, for the general work of the facing of the fronts; and the best Staffordshire blue-bricks, for portions of the cornices and strings. The bricks of the two first kinds were carted about two miles to the site. The facing-work was neatly pointed in black mortar, and was afterwards pointed with white mortar, in each joint and bed, in thin projecting lines.

The partitions that are not of brick are of timber-quartering, trussed where requisite, and filled in with brick-nogging. A layer of asphalte is laid over one of the lower courses of brickwork throughout the area of the building. This prevents rise of damp from the ground. To prevent the ingress of damp through the walls, all the external walls are hollow: each in fact is as two walls, one 9 inches and the other 4½ inches in thickness, having a cavity of 2½ inches between, so making up a total of 16 inches thickness; and the work of the external and internal faces of the whole is tied together by wrought-iron clips; of which there are two to each superficial yard of wall. All the flues are circular; though, accidentally, some are otherwise shown in the plans.

The stone is from the Huddersfield quarries, Yorkshire.

In the carpenter's work, the timber is the best Memel; and in the joiner's work, the materials are Petersburg red-deals and St. John pine. The floor-boarding is of tongued-battens. The windows have the ordinary arrangement of double-hung sashes. These are glazed with plate-glass, excepting the staircase-window, which has stained glass from a design by the architects.

In this house there are special provisions for ventilation, exclusive of the windows. They include fresh-air inlets and escape-outlets to every room. Each bed-room has a circular grating, 1 foot 9 inches diameter, in the ceiling, below a funnel; from which a pipe is carried upwards into the roof nearly to the ridge. Over each grating is a valve, which is worked by a cord from the bedside; so that the opening and closing are regulated at will. The inlet-opening is near to the ceiling, and is furnished with a valve (one of Sheringham's) that is regulated by a cord in the usual manner. The outlets,
as regards the lower rooms, are into vertical flues, not shown in the plans, which pass up next the smoke-flues and terminate in the roof. From the roof-space itself, the escape into the open air is by means of lucarnes that are shown in the roof-plan (Plate LXXIV.) as well as in Plate LXXIII.

The roof-covering is of Bangor slates, blue and purple, disposed in varied courses and in chevron-forms. The ridges are covered with Staffordshire red-tiles, having an ornamental cresting. The valleys are laid with lead. The water descends, externally, from iron eaves-gutters, by iron pipes: these are shown in the plans, and in the elevations and view.

It may be here mentioned that the whole of the space under the bath and lavatory, and under the housemaid's-sink, is covered with lead, so as to prevent leakage through the ceiling of the dining-room which is below.

The house, originally, was contracted for at £2000—the works of the different trades together; and this may be taken as what under ordinary conditions the house itself might have cost, exclusive of grates and chimney-pieces, heating-apparatus for the conservatory, and some of the kitchen-fittings, whilst inclusive of boundary-fences to the ground. But extras were as follows:—Foundation-works (which were heavy in consequence of an old water-course that was discovered intersecting the site); flooring to the hall (as shown on the plan) of Maw & Co.'s tiles, introduced after the house was built, and iron-girders and stone-flagging to carry the tiles; elaboration of finishings generally, in the joiner's work and the plasterer's, together with change of material for the staircase, from pine, to the best English oak; and Clark's patent revolving-shutters to all the ground-floor windows: these extras came to a total of £500. Then, gas-piping (not fittings), joiner's fittings in closets and store-rooms, kitchen-dressers, scullery-shelving, linen-closet, flower-stands in the conservatory, and sundry other items, made up £150 more. The chimney-pieces, the grates and ranges, and the heating-apparatus of the conservatory came to about £400. The grass-terrace cost about £60, with the steps, but without the gas-lamps. Vineries, boundary-walling to a kitchen-garden, and divers outbuildings cost £500. So that the total cost of the house and its appurtenances was not less than £3610, though including much that might be dispensed with in a house with the same provision of accommodation, but with fewer provisions for luxury.
DOUBLE VILLA,
VICTORIA PARK, MANCHESTER.

EDWARD WALTERS, ARCHITECT, MANCHESTER.

PLATES LXXVI. LXXVII.

ALTHOUGH the title of these plates, like the front-elevation in the first of them, refers to only two houses, the design and work of the architect includes four houses; of which the arrangement is explained by the block-plan in Plate LXXVII. This plan shows that there are two similar masses,—connected in the rear by a screen-wall. Each half of the entire group, or each double-villa, is the exact counterpart of the other; and each house is a counterpart of that to which it is attached,—only that the plans are reversed,—excepting that there is a slight difference in certain fire-places in the party-wall, and another in the position of the entrance-gateways to the court-yards. The houses were erected in the year 1852, in Victoria Park, which is in one of the southern suburbs of Manchester. The locality is rather flat, and without any extensive prospect. The principal front of the four houses is to the west.

The general decorative character of the design accords with that later Italian manner wherein the high-pitched roof began to play an important part; but much of the actual effect of the houses results not only from the grouping of the masses, but, in the details, from the decorative treatment of varied materials; which include moulded brick for some of the string-courses, and wood for the main-cornices, as well as stone for window-dressings and in some other parts.

This example in our series is useful as showing that a large amount of accommodation may be provided in a house costing £2000, that is to say, with the prices usual not many years ago.
Each of these four houses occupies an area, on the ground, that may be roughly set down as about 53 feet square; and each has three storeys, including the underground-basement, in the front of the house, and four storeys at the back, as well as at that portion of the plan which is carried up as a tower. There are three day-rooms, or reception-rooms; and there are rooms in the upper-floors, capable of providing for eight beds (two being in the nursery): added to which are two dressing-rooms, each partly in the tower, and a bath-room. All the bed-rooms, including those of the attic-floor, are good rooms. The staircase is a noteworthy feature, being effective and large for the size of the house, and running round three sides of a parallelogram on plan. The front- and back-entrances to the house are so disposed, and shut off, that there is no draught from one to the other, as there often is in semi-detached houses.

Ground Floor.—The principal entrance to the house is placed, well sheltered within an open porch, at the end of the block of building. The door is at right angles with the entrance to the porch itself; which latter is reached from a grass-terrace, to which there is a flight of steps of ascent. The entrance leads into a side-lighted hall, which has a fireplace; and from the hall lead out the door of the morning-room, and the way into the staircase-hall, whence lead out the doors of the drawing-room, dining-room, and offices. The morning-room and the drawing-room have bow-windows, semi-octagonal, and, as regards this storey, very similar to one another; but the projection from the drawing-room is carried up to the storey above; whereby there is produced a very marked feature in the elevation; whilst a different termination is given to the composition in the other case. The dining-room and drawing-room look, both, to the road in front of the houses. Attached to the dining-room is a china-closet, having a borrowed light from the butler's pantry. The arrangements of the shutters to the windows of the principal rooms of this house deserve attention, especially as they are part and parcel with the external effect produced by breaks and projections. The shutters, in boxings, are so contrived as to project little, if at all, into the room: the boxings are inserted in what may be considered the thickness of the wall; whilst in the case of the bow-windows they are so planned, as to their splays, that there is the least possible obstruction to the light entering, and the least heaviness of appearance in the room. These features of the houses are shown to an enlarged scale on Plate LXXVII. The
way to the offices, from the hall, leads into a space in which are the back-stairs, and the doors of the kitchen, the pantry, the main back-entrance of the house, (the last-named down three steps,) and the way down to the basement. Here also is a cupboard. Leading out from the kitchen is a scullery, with a cook's closet attached; and from the scullery there is another way out to the back-yard of the house. This description shows that almost all requisites of a house for a large family of the middle-class are provided, and at an outlay that was small. But everything could not be furnished for £2000. What the house most requires, in the opinion of its architect, is a servants'-hall. The omission, so to call it, is sought to be remedied by a hot-plate, which there is in the scullery, for summer-use. It is placed behind the kitchen-grate, and relieves the kitchen somewhat from heat of cooking.

The height in the clear, on this floor, of the principal rooms, is 11 feet 3 inches; whilst the height in the case of the offices is 10 feet 2 inches. The principal staircase is shown separately, by two sections; which will greatly assist comprehension of the relation between the upper storeys and the lower. It is lighted partly from the top, and partly by two side-windows in the attic-storey.

The yard has a large archway of entrance to it, with folding-gates. In the yard are various conveniences.

Principal Chamber Floor.—The principal stairs from the ground-floor lead up to a landing, which may be considered to form part of that of the back-stairs; and from it open the doors of one of the bedrooms, the bath-room, and the housemaid's closet. Thence, two steps lead up to the floor-level of the principal bed-rooms. These rooms, including the nursery, which is for two beds, are four in number,—one of the four having a dressing-room attached. The bed-room last referred to could be the principal one of the house; and the nursery is close to it. The nursery has one of its windows opening into an external loggia, or balcony. These different rooms are connected by an arcaded corridor, similar to one in the storey below, and railed in by a wooden balustrade. At one end of the corridor is a w.c., which is lighted from the roof. The housemaid's closet has a borrowed light from the bath-room. The rooms on this floor are, the front rooms, 11 feet in the clear height, and the back rooms, about 10 feet 4 inches.

Attic Storey.—This is reached by the back-stairs. They communicate
with a balustraded passage-way that goes round three sides of the hall of the principal staircase. It gives access to three bed-rooms; out of one of which leads a dressing-room. This bedroom, which is two steps up, has one of its windows with a loggia, as in the nursery below: the other window affords a way to the principal cistern of the house, which is over a portion of the nursery. A way out on to the roof of the front-portion of the building, also, is provided from the attics.

BASEMENT.—The underground-storey is indicated in the principal section (Plate LXXVII.) It contains the places for storage of coals, beer, and wine, and a larder. The cellars are from 7 feet 8 inches to 7 feet 11 inches in the clear height. There is an entrance into the cellars, from the yard, under the back-entrance of the ground-floor.

The external walls of these houses are of the “common” red-bricks of the locality, with facings of fire-brick. The base-mouldings and strings are formed of the latter description of brick, cast to the form required. The fire-bricks were obtained in the neighbourhood.

The sills, the architraves, and consoles to such of the windows as have these features, along with the carved trusses to the pediments of the bay-windows, the mouldings forming part with the sills of the windows of the principal chamber-floor, the fascie and moulding forming the lower division of the entablature-cornice of the building, and the scroll-supports to the terminal feature of the bay-window, are all of Yorkshire stone, polished.

All the crowning-mouldings of eaves, or cornices, of the entire building, the porch, and the bay-window in the entrance-front; the cornices of the pediments of the other front, and the cantilivers to different overhanging-eaves, are of wood. Part of the decorative effect, as in window-heads, is produced by corbelling the brickwork, and by the introduction of diagonally-set bricks in panels. The external walls are built 13½ inches in thickness, excepting in the case of the basement, where they are 16 inches, including a cavity (2½") to prevent the passage of damp. A course of 3-inch York-paving prevents the rise of damp, in the walls, from the ground below. Where the external walls span wide openings, as in the case of the bay-windows, and where the large cistern occurs, they are carried by iron-girders. The heads of the three-light windows of the upper storey, also, are formed with iron lintels;
whilst the windows of the tower have iron plates (1-inch metal) carrying the brickwork. To each of the gateways there is a strip of 4lbs lead in the brickwork, or covering the extrados of the arch.

The internal partition-walls are of common brickwork of 9 inches thickness, excepting where support below was wanting: in these latter cases the ordinary partitions, lathed and plastered on timber-quartering, are used.

The material used in the carpenter's work and external joiner's work, is the best "crown" Baltic timber. The internal joiner's work is of St. John pine. The joists are strutted by two rows of herring-bone strutting, with, ordinarily, an iron bolt (1 inch), additional, to each room.

All the windows have sashes, double-hung, in deal-cased frames. The shutters have already been referred to. The cornice of the room is carried round the recess of the bay-window, which is flanked by pilasters; and above the window there is an enriched frieze, behind which is a space that may serve as a blind-box, or for the pole for the curtains, in lieu of the ordinary cornice-pole concealing a portion of the architecture of the room, and usually destructive of harmony. The windows of the principal rooms and the hall, and those of the bedrooms in the front of the house, are glazed with plate-glass. The back-windows of the house have 16 oz. sheet-glass; and all the other windows have 26 oz. sheet-glass, of Chance's make.

The roofs, arranged as shown in the plates, are covered with Welsh slates, the hips and ridges having rebated ridge-tiles, and the valleys and gutters being lined with lead. The high-pitched capping of the tower is finished with a cresting in galvanized iron, presenting a monogram of the letters E. R. L.—those of the proprietor of the buildings. The gutters, with one exception that is shown in the transverse-section of the staircase, are on the caves; and the simple arrangement of these is explained by a separate detail-figure in Plate LXXVII. The down-pipes, however, wherever they would interfere with effect of the fronts, are placed internally. Their positions are indicated in the plans,—although, of necessity, slightly.

The total cost of the four houses was about £8000, exclusive of screen- and garden-walling. Thus each house may be said to have been built for the sum already mentioned, £2000.
ROSEBANK VILLA,
BARLOW MOOR, NEAR MANCHESTER.

SPEAKMAN & CHARLESWORTH, ARCHITECTS, MANCHESTER.

PLATES LXXVIII. LXXIX.

BARLOW MOOR, where this house was erected in 1864, is about eight miles south of Manchester. The site of the building is elevated; and there is an extensive view, over a rich and fertile country, from the two principal fronts. These face the south and east; where the ground is bounded by two main roads,—one, on the eastern side, leading to Northenden, and that on the south being a road from Northern to Chorlton,—and is inclosed by a dwarf-wall, in which, near the angle formed, is the entrance-gate, of open framework.

The circumstances of the site may be considered the key-note of the distribution of the plan of this house. The entrance is placed in one of the less important fronts, or what might be called the rear, and is not far from the entrance to the stable-yard; and the most is made of the advantages in the other fronts, by the introduction of bay-windows.

The decorative character of the building may be considered as Italian, modified by Gothic features, as in the roof, with its cresting and finials.

The main-building, or omitting out-buildings, covers an area of ground that may be approximately described as consisting of a space of about 61 feet by 35 feet, with an addition of 24 feet by 15 feet, exclusive of projections. The house contains three reception-rooms and a billiard-room, seven bed-rooms (one of them with a dressing-room), a bath-room, and a smoking-room, besides a complete set of offices.

GROUND FLOOR.—The principal entrance, on the western side, has a porch,
constructed chiefly of timber, and reached by steps. It is lighted by a skylight, as well as at the open sides. It leads into a vestibule; attached to which is a hat-and-cloak room; and connected with this are a w.c. and a second closet. The porch and vestibule are floored with encaustic tiles. The vestibule gives access, by folding-doors, to a corridor which bounds one side of the principal staircase; where there is a fire-place, in the centre of the building. From the corridor open out the doors of the drawing-room, south, the dining-room (two doors), the breakfast-room, east, and the butler’s-pantry. The staircase-hall is lighted by a large window, as well as by a small one under the stairs. A door from this hall leads to the servants’ entrance, kitchen-offices, and back-stairs,—these occupying a portion of the plan, at the north-west, which includes the projecting piece already mentioned; attached to this are the house-yard and out-buildings. The drawing-room and the dining-room have, each, a bay-window; and the breakfast-room has a similar projection, but lighted from the front only. The two first-mentioned projections are carried up to the chamber-storey; whilst the dining-room one is continued still higher, or to form part of the attic, including there the smoking-room. The staircase is finished in pitch-pine, stained and french-polished, and has an ornamental balustrade of the same material. Attached to the kitchen are a scullery and a cook’s pantry. The flooring, here, is of black and red tiles. The tiled floors are laid on brick arches, carried partly by an iron-girder in the case of the kitchen. The yard is paved with Yorkshire flags. The out-buildings include places for coals and ashes, and a servants’ w.c.,—these opening from the yard,—and another w.c., and a gardener’s tool-house, entered from the stable-yard; which yard and that of the house have communication with the front-garden, by the door which appears in the view. Each portion of the house is provided with the requisite fittings, as shown in the plans. The height from the ground-floor-line to the floor-line above, is, in the main portion of the house, 12 feet 6 inches, or say 11 feet 7 inches in the clear; and is in the offices 11 feet 3 inches, or say 10 feet 4 inches in the clear.

Principal Chamber-floor.—This contains five bed-rooms (one of them lighted by a bay-window), a dressing-room, the billiard-room with large bay-window, a bath-room, a linen-closet, a house-maid’s closet, and a w.c. The three principal bed-rooms are in close connection with the main staircase. The height of these rooms, in the clear, may be stated as varying from 10 feet.
5 inches to 9 feet 8 inches; the height from the floor-line to the line above, where there is an attic, being 11 feet 3 inches to 10 feet 6 inches.

Attic Storey.—Here there are two bed-rooms for servants, a room in which is the cistern, and the smoking-room. The smoking-room commands the view to the south; and it has a door leading out to a platform (of wooden trellis or grating,) on the roof, whence a view is obtained in other directions. This room is 9 feet in the clear height, in the highest part.

Basement.—This storey provides a larder, a wash-house cellar, a store-cellar, and two other cellars, each lighted from a sunk area, besides cellars for coals and wine. The height in the clear is about 8 feet, or the height to the ground-floor line is 9 feet. The wash-cellar is distinct from the rest of the basement, and has its own access from the yard by steps. Thus, and by reason of this cellar being arched over, there is no annoyance in the living-rooms from the internal position of the wash-house.

The external walls of the house are of brick, built 16 inches in thickness,—or made up of an external 9 inches, an interior 4½ inches, and a cavity of 2½ inches. The general work is of “common” brick; and the facing is white brick,—the doors, windows, and chimneys having stone dressings. The corbelling under the eaves, the three salient courses forming a string between the storeys, and the heads of openings that are arched, are in brick. The string-course continuing the line of the sills of windows, the filling-in to the balcony of the staircase-window, the trusses and mouldings, and the enriched corbels on two of the chimney-backs, are of stone. Most of the internal partitions are of brick.

The bricks were obtained from Dukinfield, about 6 miles from Manchester, and the stone was from Huddersfield, about 26 miles distant—the carriage to Manchester being by water. The mortar for both brickwork and stonework is composed of Buxton lime and smith’s ashes: so that the joints tell black. The provision to prevent rise of damp consists of a layer of asphalte. The brickwork over the recess of the breakfast-room window is carried by a cast-iron girder.

The timber in all joists, plates, and lintels is American spruce; and in the roof it is Quebec pine. The joiner’s work throughout is of St. John pine. The roofing, arranged as shown on the plan, has ridge-pieces of 7 inches by 1½ inches, hip-and-valley-rafters 11 by 2 inches, purlins 8 by 6, wall-plates
4½ by 3, principal-rafters 9 by 5, king-pieces 12 by 5, tie-beams 8 by 5, and common-rafters 3 by 2½. The ridges are covered with blue Staffordshire tiles; and the hips are covered, and the valleys lined, with lead. The general roof-covering is of Bangor slates, each slate 16 inches by 10 inches. The water from the roof is conducted, chiefly by eaves-gutters, to 3-inch cast-iron down-pipes leading into earthenware drains, but runs to waste,—the supply of water for all purposes being obtained from the Manchester Water-Works.

The gablets in the north and west fronts have rafters, with moulded ends, and carried by corbels; and they are terminated by lead-covered hip-knobs. Similar features to these last, crown the main roofs, excepting in the case of the dormer-window of the smoking-room, where the terminal is of the same material as the mouldings, or stone. The cresting to the roof of the smoking-room pavilion is of wrought iron; that to the other roofs is of the tile-ware.

The windows have sashes, double-hung; these in the principal rooms are glazed with polished plate-glass; and the lower rooms have shutters.

The entire cost of the house, with its appurtenances, so far as shown in the engravings,—or exclusive of stables and of the enclosure-walling of the garden,—was as here stated:

<table>
<thead>
<tr>
<th>Contract-sums:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavating and Drains,</td>
<td>£910 0 0</td>
</tr>
<tr>
<td>Brickwork and Masonry,</td>
<td>£1060 0 0</td>
</tr>
<tr>
<td>Carpenter and Joiner's work (exclusive of shutters); and including Iron-girders,</td>
<td>£715 0 0</td>
</tr>
<tr>
<td>Slater's work,</td>
<td>£73 15 0</td>
</tr>
<tr>
<td>Plumbing and Glazing,</td>
<td>£169 17 0</td>
</tr>
<tr>
<td>Plastering, Staining, Varnishing, and Painting,</td>
<td>£144 5 0</td>
</tr>
<tr>
<td><strong>Total Contract-sums</strong></td>
<td><strong>£2238 17 0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extras, &amp;c.:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chimney Pieces and Grates,</td>
<td>£177 15 0</td>
</tr>
<tr>
<td>Extra Ornamental Plaster-work; Tinting walls in distemper, &amp;c.,</td>
<td>£87 9 0</td>
</tr>
<tr>
<td>Extension of Yard Walls, and Out-offices: Excavating, Brickwork, and Masonry,</td>
<td>£88 17 4</td>
</tr>
<tr>
<td>Do. Plumbing and Glazing; with extra lead-pipe in house,</td>
<td>£29 0 0</td>
</tr>
<tr>
<td>Lighting-Conductor,</td>
<td>£14 11 0</td>
</tr>
<tr>
<td>Gas-fittings, &amp;c.,</td>
<td>£58 9 0</td>
</tr>
<tr>
<td>Joiner's work, extra, in shutters; also Lavatory and fixtures, &amp;c.,</td>
<td>£127 12 0</td>
</tr>
<tr>
<td>Do. in extension of Out-offices,</td>
<td>£30 0 0</td>
</tr>
<tr>
<td><strong>Total Extras, &amp;c.</strong></td>
<td><strong>£579 15 4</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£2833 12 4</strong></td>
</tr>
</tbody>
</table>
CHIMNEY-PIECES.

A. & G. THOMSON, ARCHITECTS, GLASGOW.

PLATE LXXX.

The chimney-pieces here illustrated are in Holmwood Villa, near Glasgow, which forms the subject of Plates LXVI.-LXXII., and in the description of the house they are referred to in general terms.

The dining-room chimney-piece is of Galway black marble; those in drawing-room and entrance-hall are of Italian veined white marble. On these chimney-pieces there is not much carving. The greater part of the ornamentation is sunk and gilded in the hollows, the cuttings being from \( \frac{1}{4} \)th to \( \frac{3}{8} \)ths of an inch in depth, and angular or rounded in section according as the ornamental forms or the purposes of contrast appeared to suggest.

The effect of the gilding is much enhanced by the reflection of opposite surfaces upon each other, and the whole of it is so well protected from injury by being below the general plane of the marble, that, after ten years' wear, the gold has lost little or none of its original brilliancy.

The object in view, in adopting this mode of ornamentation, was to establish a harmony between the broad marble surfaces of the chimney-pieces and the decorated walls, and also with the various articles of taste usually arranged upon the mantel-shelf. Decoration in this manner can be executed at a very moderate cost when compared with carving in relief, seeing that there is much less work in producing the sunk cuttings, and that the thickness of marble required is but very little more than what is necessary for a plain chimney-piece.

THE END.