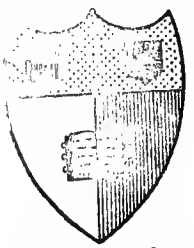


VOLUME FIVE

OF

THE ART AND LIFE LIBRARY

HOUSE NEAR WINCHFIELD, HANTS.

THE DRAWING BY T. HAMILTON CRAWFORD

Ernest Newton, Architect

THE·MODERN·HOME

A·BOOK·OF·BRITISH·DOMESTIC·ARCHITECTVRE·FOR·MODERATE·INCOMES

"A·COMPANION·VOLVME·TO·"THE·BRITISH·HOME·OF·TO-DAY"

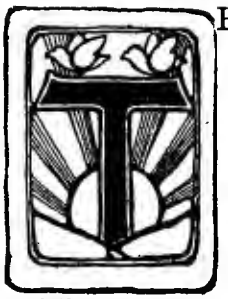
THE·TEXT·BY·W·H·BIDLAKE·M·A
HALSEY·RICARDO·&·JOHN·CASH

EDITED·BY·WALTER
SHAW·SPARROW

NEW YORK: A. C. ARMSTRONG & SON
3 & 5, WEST EIGHTEENTH STREET
LONDON: HODDER & STOUGHTON

Butler and Tanner, The Selwood Printing Works, Frome, and London

FOREWORD



THE aim of the present book is to continue the scheme of work begun in "THE BRITISH HOME OF TO-DAY." In that volume the subject ranged from the furnishing of large and expensive houses to the illustration of important country mansions designed and built for the rich. To-day, in this book on *The Modern Home*, an appeal is made to a very much wider public; and as the contributors are all men of eminence in their professions, the abundant illustrations draw attention to various types of the best contemporary design in British domestic architecture and decoration.

Cottages of many kinds are represented, and they are placed in contrast both with small houses and with homes of a larger size, requiring for their maintenance a staff of four or five indoor servants. Thus the aim of the book travels from simple cottages to houses that would suit the professional man and the man of business, either as homes of retirement in which to pass the final years of their life, or else as places of rest for the week-ends or from the street noises of a house in town.

As the understanding of an architect's elevations and plans is a thing of the utmost importance, and as the great majority of people are not attracted at all by technical designs in black and white, an attempt is made here to encourage the study of a difficult subject by reproducing in flat tints a series of no fewer than twenty-two coloured sheets of architectural working drawings. This reproductive work may be described as a new and original experiment. It has never been used on so large a scale, and it appears for the first time in a popular book. It has been carried out by Messrs. Carl Hentschel, Limited, who with great care and patience have mastered a good many difficulties which other blockmakers have looked upon as insuperable, except in a single technical plate for an expensive book. A beginning has thus been made, and the next attempt will give further progress.

It is a pleasure to acknowledge with grateful thanks the help so kindly given by all the contributors, and by the Hon. Alfred Lyttelton, Mr. Alexander Wedderburn and Mr. Augustus Littleton, Mr. Fred. Burridge, R.I., Mr. Reginald Blunt, Mr. Albert Stevens and Mr. Harold Stevens, Mr. T. Hamilton Crawford, Mr. W. James, Mr. Winton Newman and Mr. F. Mason Good.

WALTER SHAW SPARROW.

CONTENTS

SPECIAL PLATES IN COLOUR AND THEIR CONTRIBUTORS

Special Plates in Colour and Their Contributors

LIST OF CONTRIBUTORS AND TABLE OF BLACK AND WHITE ILLUSTRATIONS

* *Errata. The scale of the plan on page 66 is approximately 1/16 in. In the plan on page 67 the scale is less than 1/16 in., the width denoting 56 feet and the depth 75 feet.*

The Modern Home

List of Black and White Illustrations

The Modern Home

The Home from Outside. Perspective Drawing in Water-Colour

ROW OF FOUR COTTAGES NOW BEING BUILT AT SOUTH MYMMS, HERTFORDSHIRE, FOR V. B. TRITTON, ESQ. THE PORCHES ARE OF RED BRICK WITH A DIAPER OF BRICK, THE DOORS ARE GREEN, THE WOODWORK IS PAINTED WHITE, THE WALLS ARE COVERED WITH LIME ROUGHCAST AND THE ROOFS WITH OLD TILES FROM COTTAGES NOW PULLED DOWN

Geoffry Lucas, Architect

The Home from Outside

By W. H. Bidlake, M.A., Architect

OF course, few are insensitive to the charm of an old manor house! Do not the very words suggest to us some gabled buildings, whose lichen-covered walls and age-furrowed timbering Nature seems to have claimed for her own, and dressed in her own livery? There it stands, overgrown with ivy and sheltered by tall trees, in detached seclusion, content to let the busy life pass it by on the distant high road. It speaks of other days, when life moved more leisurely, and when the many inventions which yearly make our modern life more feverish, were unknown. Its walls have seen many generations come and go, and this dual association of Nature and human life has invested the manor house with infinite romance. Nor is this dispelled on entering the panelled and low-ceiled rooms, where the furniture, like the house itself, has been handed down from father to son, and presents that simple, solid, and homely character which we associate with old English life. From how many, alas, has the old furniture disappeared! The panelling, too, and even the old staircase, may have been bought up by dealers, and perhaps deported to America.

But is it to Nature and human association alone, let us ask ourselves, that the charm which haunts these old buildings is to be attributed? Are there no other factors that contribute to the effect? For instance, do we not feel more or less consciously that the building itself, apart from its extraneous ivy and lichen, expresses the needs and the manner of life of its old inmates? That it is, in fact, the direct outcome of an attempt to satisfy them? Certainly we are sure that its plan was not schemed out in accordance with any preconceived theory, but that the rooms were grouped together as we find them because, on the one hand, it was the customary and traditional way of arranging such houses, and because, on the other, the planning had slowly changed from age to age with the conditions of life.

The Modern Home

The external presentment, in like manner, was not designed to express any given architectural style; it was the direct outcome of the arrangement of the plan. Its half-timber and plaster or tilehung walls were not so constructed to gratify their owner's love of the picturesque, but because such materials were readily obtained in the district and had, in consequence, been so employed for generations past, so that the local workmen were well acquainted with their preparation and use, and needed not to be instructed on these points by an architect's specification. So true is this, that the style and methods of house and cottage building in different parts of the country vary in accordance with the underlying geological formation; on which also depends in large measure the abundance or the paucity of oak timber. Thus, the manner of stone building practised in the seventeenth century on the confines of Worcestershire and Gloucestershire and in the neighbouring districts—the manner which is sometimes spoken of as the Cotswold style—would be more appropriately called the Oolite style, for it is practically identical with that in vogue elsewhere at the same period, not only in Oxfordshire and Northamptonshire, but also in all districts where the oolite stone was of good quality and easily accessible.

In like manner half-timber building is to be found in Cheshire, and tile-hung walls and hipped roofs in Sussex.

The materials employed had their share in determining the design of the house, acting in conjunction with the plan, for every kind of material has its own proper manner of construction. If the roofs are thatched, they must be steep to throw off the rain quickly; if covered with slate as in Wales, or with large stone slabs as in Lancashire, they may be of low pitch; if of tile, they will be of intermediate pitch, and as angle tiles are readily moulded the roofs will often be hipped, as in Sussex. A timber-framed house will have its upper storeys and gables overhanging the better to protect the timbering below. Similarly, the windows will vary in their character according as they have stone mullions or wood frames, a stone lintel or a brick arch.

The materials thus employed were prepared in a

manner which tradition and experience had taught to be the best. Labour-saving machinery, with its accuracy of working and uniformity of result, was then unknown. The natural limitation which the materials imposed were not subjugated then by a ruthless force. No steam plane converted the bent log into rigid lines; rather Nature's hints were gratefully accepted, and the bent log, with all its fibres intact, was even preferred, not only because it was stronger when fixed in a cambered position, but because its less rigid lines were more grateful to the eye.

Many other illustrations might be adduced of the harsher treatment of material by modern methods; but that of brick-making is, no doubt, especially noteworthy to all architects, and invites and deserves very careful consideration here.

The aim of every brick manufacturer nowadays is to produce bricks as exact in shape, as sharp in arris, as smooth in surface, as uniform in colour, and as bright a red as it is possible to make them, and every bricklayer is taught that the best face-work is the most accurately laid and the most perfectly uniform in colour; and to attain this ideal the bricks will often be carefully picked over and those rejected which vary in only a slight degree from the standard red. Consider also the detestable method of tuck-pointing in white, or even in black mortar, which consists in outlining the brick joints by applying thin strips of mortar over the surface first made uniformly red by rubbing over it a soft brick. This is a still more reprehensible means of securing that soulless uniformity which is the delight of the modern bricklayer. And to the further detriment of modern brickwork, the bricks themselves are of very clumsy proportion, having (as a result of the brick tax) a thickness of three inches, exceeding that of the old bricks by half. Surely the atmosphere of the smokiest town is not enough excuse for brickwork such as this, and it is absolutely certain that a cottage or a country house is ruined by it. If this assertion seem too dogmatic, you may easily realize its truth by imagining Compton Wynyates decked out with brick-facing similar to that which I have described.

It is surely an instance of the British manufacturer's

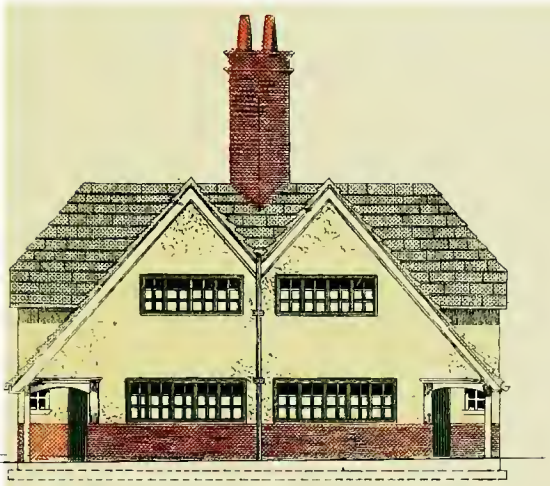
indifferent taste and want of enterprise, that while, for years past, architects have been re-using the old bricks of demolished buildings, no brickmaker has stepped forward and offered to supply bricks for face-work made on the old lines.

Our modern roof tiles are open to the same objection as the bricks, with this difference, that if the bricks are made too thick, the tiles are made too thin, but in both alike there is the same want of surface texture, the same want of individuality between one tile and another, the same hardness of colour and shape. It is very remarkable that while in so many other matters which concern the house of to-day the movement for the revival of the crafts has exercised a beneficent influence, the brick and tile manufacturers are still behind in the dark mid-Victorian days. It may be advanced that bricks and tiles made by the old methods would cost more. Undoubtedly they would cost more than the common wire-cut, machine-made bricks, but they would not be so costly as the special facing-bricks; and were they even more so, who would not be willing to allow the extra expense if the alternative were the spoiling of an otherwise beautiful house by the artistic inferiority of its materials for the roofs and walls?

Let us then go back to our manor house, and of the many lessons it is prepared to teach let us learn at least to respect the right treatment of building material. We shall then be in a better position to form a critical judgment of the domestic building of to-day, and detect in it those signs which will enable us to perceive the direction in which it promises to develop.

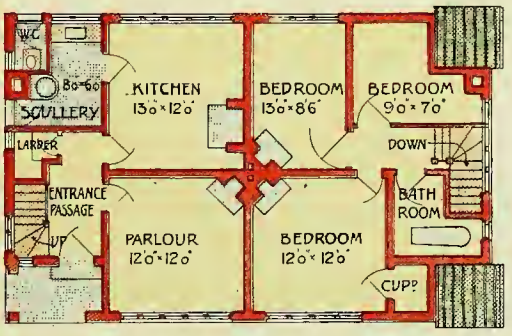
Many are the disadvantages that beset the architect in these days, and among them is the fact that he works out his designs in an office, often far distant from the site of the house he is to build, and, it may be, in a district in which a quite different kind of material, and consequent difference of construction, has been practised in the past. This circumstance not only demands of him a careful study of the materials of his new district but a greater effort of imagination. Nor is this all, for in studying an old house we are at once struck by the natural manner in which it adapts itself to its site, and the levels of the ground. Its

DESIGN FOR A PAIR OF COTTAGES

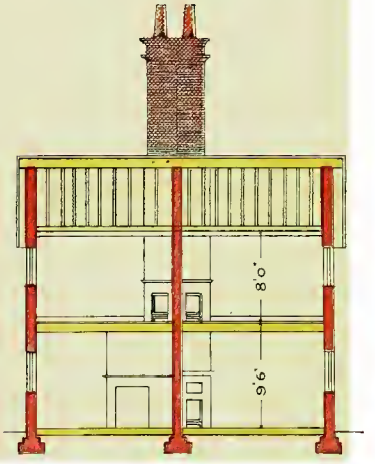


FRONT ELEVATION.

SIDE ELEVATION.

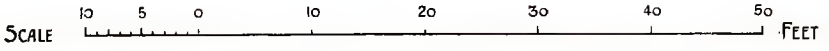


GROUND PLAN



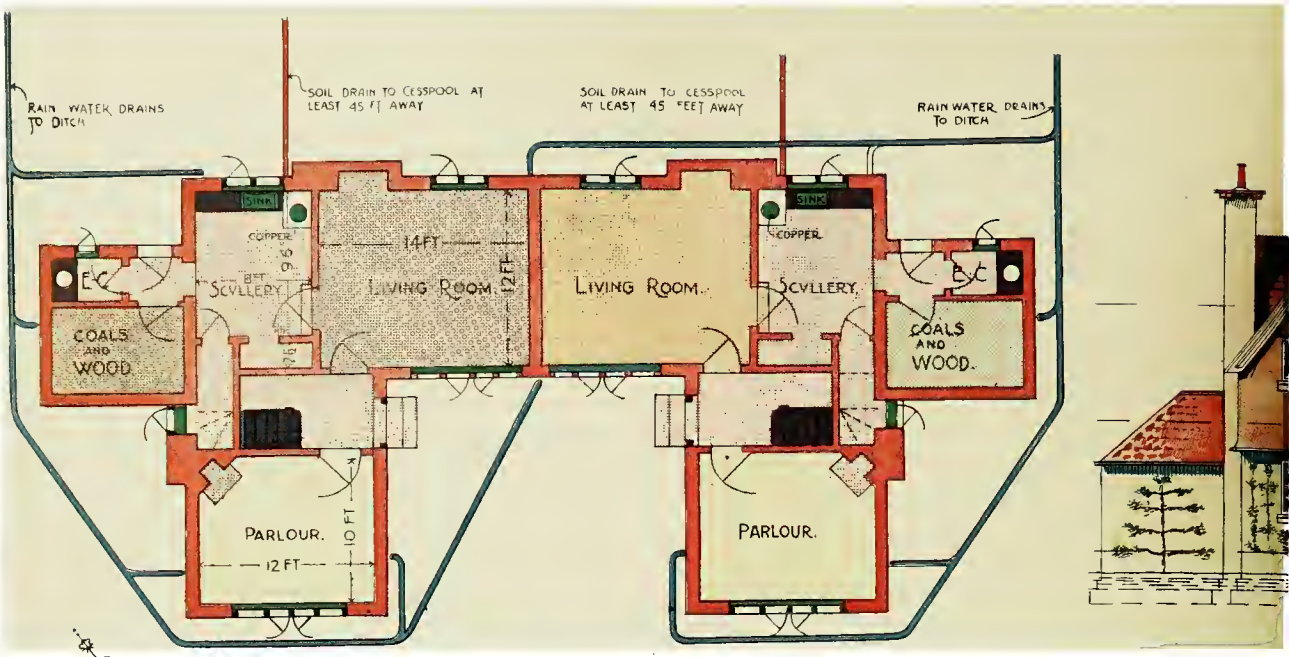
SECTION A.A.

FIRST FLOOR PLAN

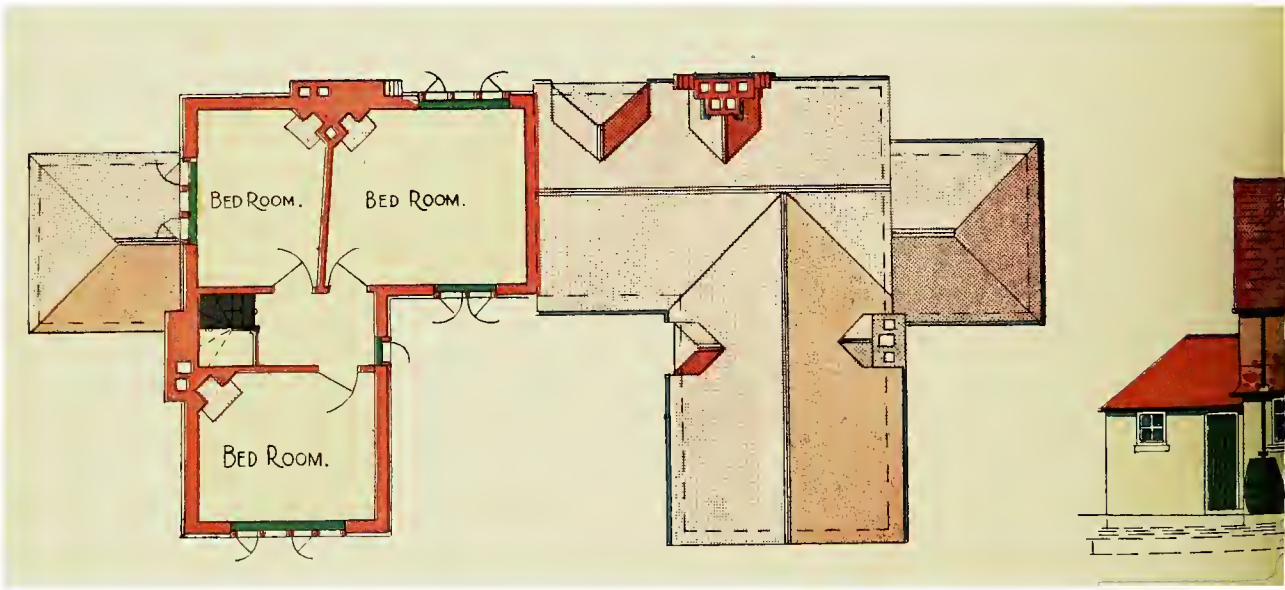


MATERIALS: CUMBERLAND SLATES, RED BRICK AND ROUGHCAST, WOOD WINDOW FRAMES PAINTED GREEN

A. N. Prentice, Architect



GROUND FLOOR PLANS

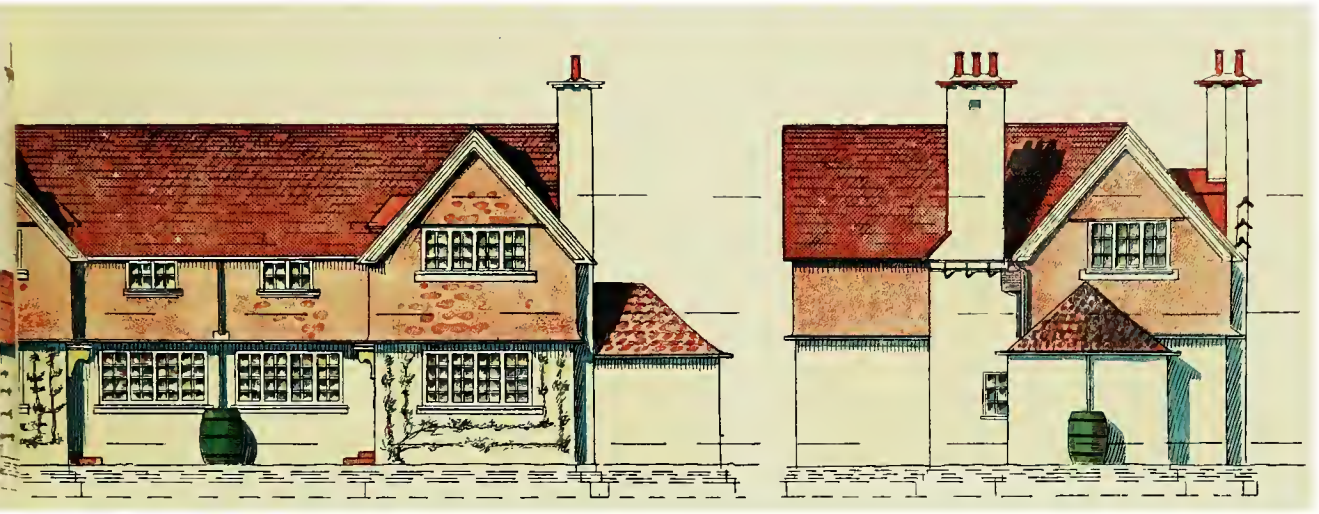


FIRST FLOOR, AND ROOF PLAN.

SCALE OF 5 0 5 10 15 20

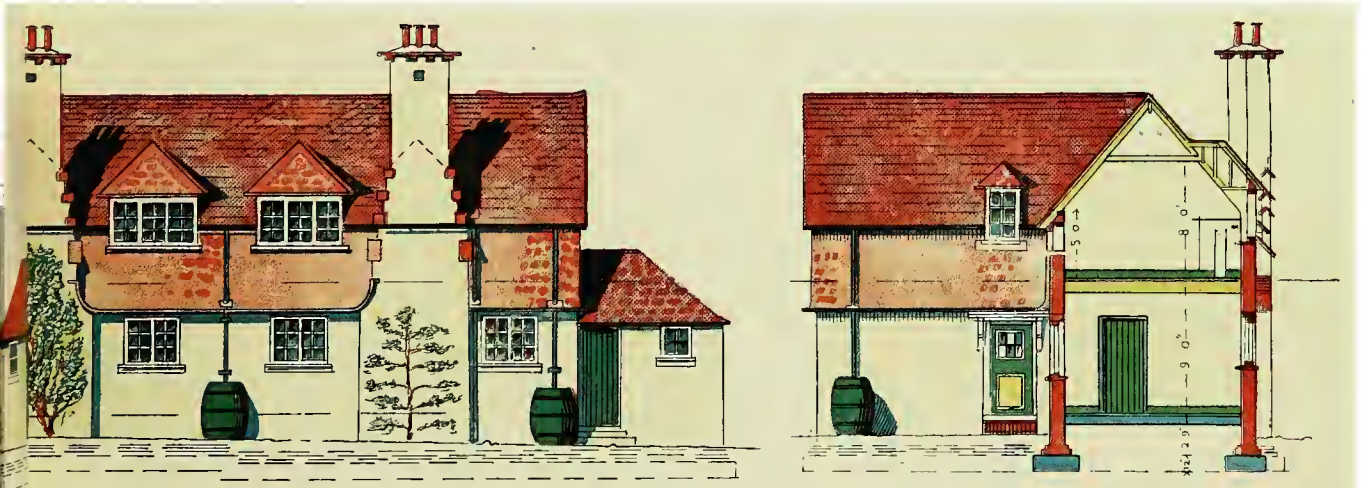
PAIR OF COTTAGES AT BRAMLEY, NEAR GUILDFORD, FOR HENRY KEENE, ESQ.

Horace Fi



FRONT ELEVATION.

SIDE ELEVATION.



BACK ELEVATION.

SECTION A·A

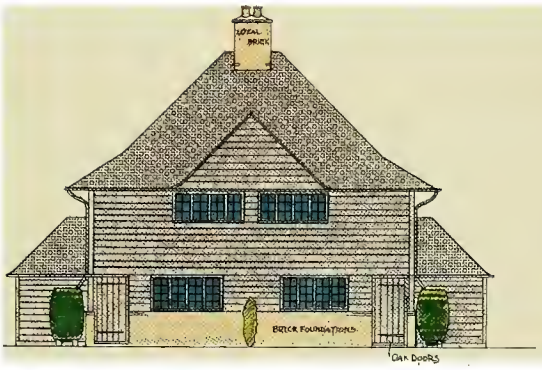
35 40 45 50 FEET.

Horace Field
ARCHITECT.

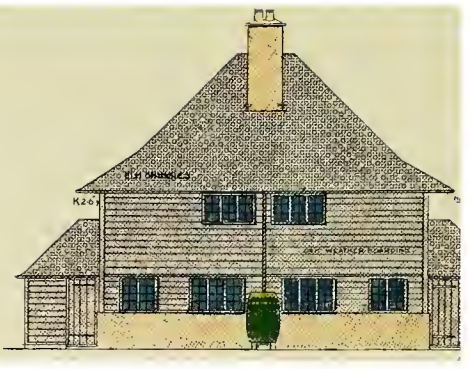
BUILT AT A COST OF £665 THE PAIR. REPRODUCED FROM THE ORIGINAL DESIGN

hitect

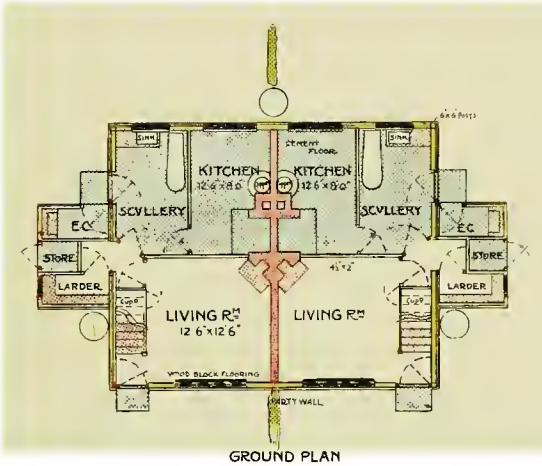
ESTIMATED COST £380



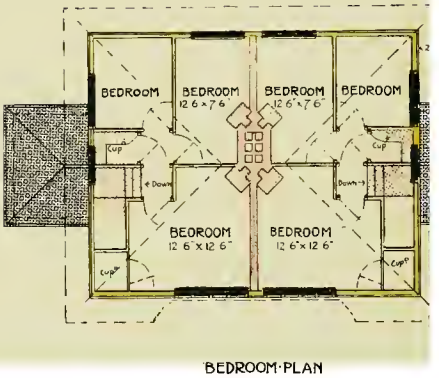
FRONT ELEVATION



BACK ELEVATION



GROUND PLAN



BEDROOM PLAN

PAIR OF SEMI-DETACHED WOODEN-FRAMED COTTAGES. ESTIMATED COST, £380

Lionel F. Crane, Architect

arrangement was worked out on the spot, and the exigencies of the site united with those other circumstances which have been considered in determining the plan and design of the house.

The modern architect, too, if he is wise, will scheme the main lines of his building whilst visiting the site, and while he is under the influence of its character and surroundings. In this way the little accidentals of design occur which are often so pleasing, and sometimes they even determine its main character. The architect regards them as happy inspirations, but they are inspirations that would not have come to him within the four walls of his office. He might even go further and say that a quiet stroll about the site towards evening, when the failing light has broadened the masses and subdued the detail of the surroundings, will unlock the fancy, and enable the mind more vividly to perceive the pictorial possibilities of the problem it is seeking to solve.

Doubtless many other matters relative to the building of the manor houses, the farms and cottages of two or three hundred years ago, might profitably be considered; but it will suffice for our present purpose, which is rather to examine the present state and future promise of the house building of to-day, if we follow some of the changes which have taken place in the interval, both in the arrangement of the plan and in the use of material. It will be unnecessary to refer to the larger houses and country mansions, except in so much as they help to elucidate the study of the smaller homes, or as having first set new fashions which subsequently gathered the smaller in their wake. The mansion lies outside the scope of the present volume, which deals rather with the modern house for moderate incomes, and so its development in the past is more aptly illustrated by the manor house at one end of the scale and the cottage at the other.

The small country houses and farms of the Tudor and early Stuart period clearly indicate in their plans the traditions of the Middle Ages. The hall is still the important room in the house, and is screened off from the entrance passage extending through the house from front door to back, an arrangement which we should find draughty nowadays, but which would not incon-

venience our forefathers, whose less luxurious upbringing and open-air life had inured to harder conditions. The other rooms are more or less loosely attached to the hall as if they had been added by a process of accretion, rather than as having been arranged in a plan logically brought to completion.

Nevertheless, this logical planning was already practised with regard to the larger houses in the early days of the seventeenth century, and it soon manifested itself in the smaller ones also. The hall now becomes the focus of the building. It is no longer a dwelling-room, but the vestibule and ante-chamber to the other rooms, and from it the staircase leads to the chamber floor.

Already a new and alien fashion had been introduced into English architecture, one which was not the outcome of conditions peculiar to English life, but due to the revival of classic forms, which, with their requirement for a greater rigidity and symmetry of treatment, had, even in Elizabethan days, impelled Bacon to remind the readers of his Essays that " houses are built to live in, and not to look on; therefore let use be preferred before uniformity, except where both may be had."

At first the new fashion blended itself with the old and gave rise to many picturesque mansions, but after the days of Inigo Jones this uniformity of which Bacon speaks tightened its grip. The irregular and picturesque grouping of gables gives place to the symmetrical and carefully balanced façade, the romantic yields to the scholarly, the traditional plan succumbs to one more carefully worked out to suit the more refined conditions of living, and the mullioned casement window, with its easy adaptability in size and proportion, is displaced by the sash window, equidistantly spaced in rows across the façade, which is terminated by a classic cornice or pediment. There is a restraint and quiet dignity about these houses not confined alone to the façade, but pervading the interior, and communicating itself also to the formal garden. Classic forms had now become quite acclimatised and English Renaissance architecture, in the hands of the architects of the eighteenth century, became as distinctive and as thoroughly national as English Gothic architecture had been

in an earlier age. The large panelled interiors, with their modelled plaster ceilings, were expressive of refined well-being, and the careful execution of every detail and of such ornament as the general severity of the style allowed, bespoke the high attainment of the building crafts of the time. The architectural forms of the day, although in the main classic, were yet capable of adaptation and change : they had not become stereotyped : they were still living. It was not until the latter days of the eighteenth century that the literal copyism of ancient classic forms sapped the life from the English Renaissance.

From that time matters went from bad to worse, until in the mid-Victorian period domestic architecture seemed almost a lost art, and in the general artistic indifference there were few to mourn its death. Is it necessary to describe the middle-class house of that period ? The hall was then a narrow passage with a floor of so-called tessellated paving, the walls were covered with a paper ingeniously printed to look like marble in large-jointed slabs, and the varnish with which it was subsequently covered turned in time to a dingy brown. Along one side of the narrow passage-hall rose the staircase with a balustrade of magnified match sticks, grained, as indeed was the woodwork throughout the house, in orange-brown colour supposed to imitate oak. The walls of the principal rooms were covered with flock paper ; and from a papier-maché rose in the centre of the ceiling hung an elaborate fantastically chained gaselier. The heavy cast-iron grates were surrounded by white marble slabs, and the veneered furniture which filled the rooms was as artistically degraded as the house.

The Gothic Revival re-awakened an interest in architecture, restricted, for the most part, to ecclesiastical buildings; but when the Revivalists came to apply themselves to domestic architecture they went astray. In their zeal for the purity of thirteenth century art, they chose that phase of Gothic least suited to modern house building, and one of the most distressing problems in the furnishing of a house was how to fit a Venetian blind to a pointed window. In the end no little ridicule was poured on the Revival, for the same literal copyism of ancient

The Modern Home

Gothic forms was demanded of its votaries as had brought about the degradation of the classic Renaissance at the end of the XVIII century. In this hour of direst need Mr. Norman Shaw began to address himself to the problems of house building, and it is hardly too much to say that it is to the advent of Mr. Norman Shaw, and to the extraordinary influence of his work—i.e. the grand series of his designs for houses executed between the years 1864 and 1894—that we owe the revival of English domestic architecture, and the position occupied by the art to-day.

Naturally Mr. Shaw's earlier houses, like that at Craigside, erected for Sir William Armstrong, show strong Gothic affinities, but Mr. Shaw was not slow to perceive that the brick Renaissance houses of the eighteenth century—houses in the "Queen Anne style," so called—more nearly answered the requirements of the present day; and it is by the revival, or more correctly the adaptation and development of this style, and its application to the town house and the small country house, as well as to the country mansion, that Mr. Shaw has rendered such inestimable service to the advance of domestic architecture. Nor did he stand alone. Mr. Philip Webb, Mr. Eden Nesfield, Mr. Ernest George and Mr. John Belcher, not to speak of many others of less note, have each associated nobly in the good work.

The application of machinery to manufacture on an ever-increasing scale has attended all craftsmanship since the earlier part of the nineteenth century, bringing into vogue many changes of an economic and a social kind; and this enemy to hand-labour has brought us banes as well as blessings, for it has almost extinguished the many crafts associated with the construction and the decoration of buildings. The thread of many a tradition is now irrevocably severed, and with the simultaneous decay of apprenticeship, the hand that wrought has lost its cunning. The contract system of carrying out building operations, in which each builder strives against his fellow to execute the work as cheaply as possible without reducing his own margin of profit, is a direct discouragement to good work; and it is also to be feared, in spite of all statements to the contrary, that the

THE HOME FROM OUTSIDE. Perspective Drawing

SMALL HOUSE AT ROYSTON, FOR MRS. BAILEY

FROM A DRAWING IN WATER-COLOUR

John Belcher, A.R.A., Architect

The Home from Outside

result of the action of trades unions is often to level down the good workman to the status of the bad.

The direct result of the decay of the building crafts, owing to the inferior education of the workmen engaged in them, is to throw a greater burden of responsibility on the architect. At one time the architect simply furnished the design and then consulted with the various artificers, craftsmen and artists to be engaged upon carrying it out, correlating their labours, and directing all towards the realization of his idea. The full-size details of moulding and decoration were designed by the master masons themselves within the limits of the general drawing. To-day, on the other hand, the architect must work out and furnish full-size drawings of every minute detail, while the workman is equipped with a knowledge so limited that it does not enable him even to form an opinion about them, and he is restricted also by conditions that neither grant him any initiative nor encourage him to think for himself. His business in life is to execute details of work like a human machine. The architect dominates him in every way, in every direction, and leaves the peculiar impress of his own thought on every detail. How different is that from the greater freshness and variety which used to be attained by the exercise of many minds upon the same building, in those days when the genius of traditional art and craft was a living force in England!

The decay of the traditional crafts being an irreparable loss to the advancement and well-being of the decorative and applied arts, there were many who, during the latter part of the nineteenth century, followed the example set by Mr. Walter Crane and Mr. William Morris, and a revival of the crafts was begun with much patience and enthusiasm. An earlier attempt had been made by Pugin, more especially with reference to painted glass and wrought ironwork, and those arts which were associated with ecclesiastical furniture and decoration; but the Art and Craft movement of the present day, while not by any means ignoring ecclesiastical art, sets itself especially to the task of exerting an elevating and ennobling influence on the home life.

The movement at first took the form of a propa-

ganda, but various guilds of work were started after a while, more or less on a philanthropic basis, and in the classes belonging to these guilds boys were taught various kinds of craftsmanship. It was soon realized, too, that the true aim of these efforts was none other than the regeneration of the applied arts, and that this could not be achieved unless the movement were made to rest on a sound financial basis. In other words, the articles manufactured by the guilds must compete successfully in the open market against the machine-stamped stock-in-trade of the average manufacturer. Articles made by hand could not be sold for the same price as the stock-in-trade wares, but their greater excellence would at once commend them to the discerning, who would willingly pay the higher price.

The Arts and Crafts movement has prospered amazingly, it is becoming a mighty force; and here is evidence at once both of its value to the community and of an intelligent appreciation on the part of the public, an appreciation which is likely to increase as the newer generation educated in the Art Schools displaces the old. Not the least satisfactory circumstance of the revival is the number of young men who have spent their student days in the study of architecture, and have thus been impressed by the importance of the recognition, in applied arts, of structure and material. The work of the various guilds is a great boon to the architect who is engaged upon house building. Indeed, it is his emancipation from the trade catalogue; it gives him the power of securing for his client the qualities of uniqueness and individuality, not only in the house itself but in even the most minute fitting. To-day, then, in the equipment and decoration of a home, the product of many minds may be used as in the past, to supply that variety of treatment which would be lacking, were it incumbent upon the architect either to design all the fittings himself or to select them from stock patterns. But let us remember also that the teaching associated with the revival of the crafts does not stop at applied art, but includes architecture itself, laying great emphasis upon the importance of construction, and the right use of material.

The Home from Outside

So far, so good. But excesses of enthusiasm came, wild and foolish excesses, that proved to be a reversion to prehistoric barbarity. The "New Art" craze came into being, and it is still so recent that we can hardly yet realize that it was and is a nightmare and not a permanent reality. Is it not extraordinary, and not a little inconsistent, that those who were advocating the revival of craft traditions should have deprecated the continuance of architectural tradition also, seeking to remove that rudder which, all along the history of the world's architectural development, is seen to be the steadying and steering agent? Thus relieved of guidance and restraint every man did that which was right in his own eyes, until his better sense recoiled at the lawlessness and licence to be witnessed everywhere. To be merely original is easy enough. The New Art having detached itself from the past, sought originality first, an aggressive and self-advertising originality, showing no respect for the virtues of reticence and the sense of fine proportion.

Still, too much stress may be laid on the New Art movement, for it has not taken any real hold on British domestic architecture, which has quietly and steadily progressed, unaffected by the New Art eccentricities. It is to the work of men like Mr. Lutyens, Mr. Guy Dawber, Mr. Lorimer, Mr. Ernest Newton, Mr. W. H. Brierley, Mr. E. S. Prior, Mr. Gerald C. Horsley, Mr. E. J. May, Mr. Herbert Baker, Mr. Arnold Mitchell, Mr. R. W. Schultz, that we must turn if we wish to realize the high achievements of the art at the present time. And the one quality which is written upon the work of these masters—written in characters so distinct that he who runs may read—is, reticence. There is no parade of effort, no striving for effect, no desire to advertise the architect at the expense of his building, and, one may add, at his client's cost. For, although the client may not suffer pecuniarily, it must be a daily torture to a sensitive man to be confronted continually by the misdirected efforts of his architect's undisciplined originality.

As examples of reticence, take Mr. Lutyens' "High Walls" (page 70), and Mr. Dawber's house at Denbigh (page

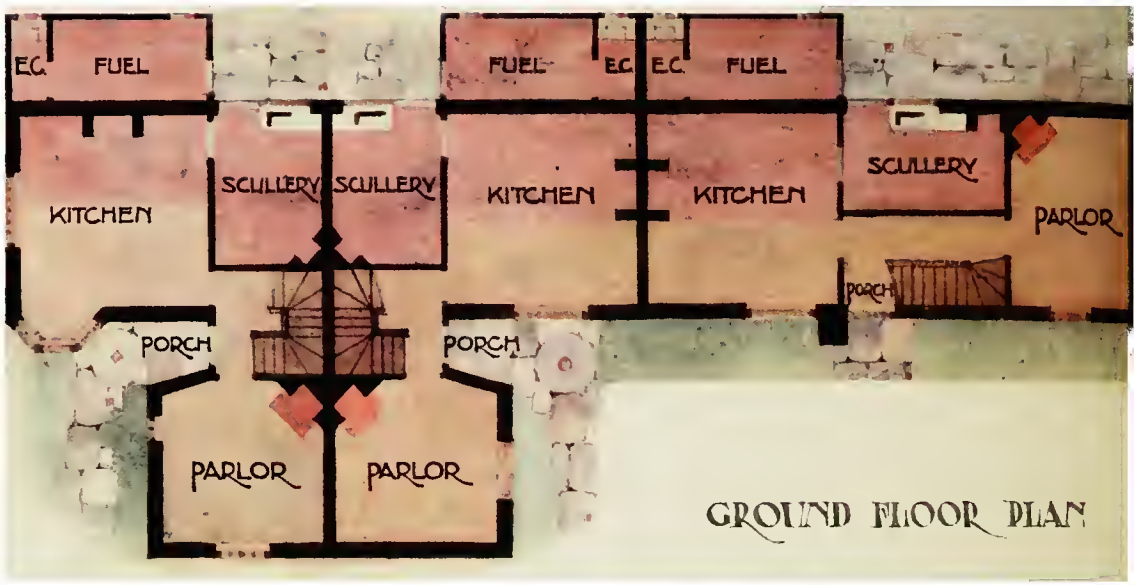
35), and the charming little house at Langstrothdale (page 46), by Mr. Harold Henderson. All alike illustrate the same characteristics, and they are precisely those good qualities which have won an honoured place for modern English house building.

There is, to begin with, the traditional note that rings clearly through all the best work. One has not seen anything exactly like these three buildings before, but they awaken associations of ideas, and reminiscences. Mr. Dawber, for instance, as in so much of his work, shows with intimate knowledge his sympathy for the old Cotswold manor houses and farms, while Mr. Henderson proves his study of old Yorkshire buildings.

And yet these houses are not copies, far from it, for there is distinct originality of the right sort. Here the traditional has been selected only as a base to work upon : its elements have been modified and re-combined, they are adapted to meet the needs of the present day. In a word, the traditional has been brought up to date. And what, indeed, is all progress but that ? The traditional is no doubt the survival of the fittest, and therefore it embodies that which is best suited to the conditions of any given time. The broad conditions of life now are similar to those which prevailed when the Cotswold farms were built, the details only have varied. Then why neglect to learn from the wisdom and experience of our forefathers ? Why make a new start at the beginning, at first principles, and put a lintel on two posts Stonehenge-wise, and call it a doorway, and so build up a " new and consistent style ? "

We do not want a new style. We are reverent as a people, and we are not only proud of the heritage which our fathers have left us, but we wish to feel that our dwelling-houses trace their lineage also from those of old time, and echo by their similar disposition of stone gable or mullioned window some of the romance that attaches to the old buildings.

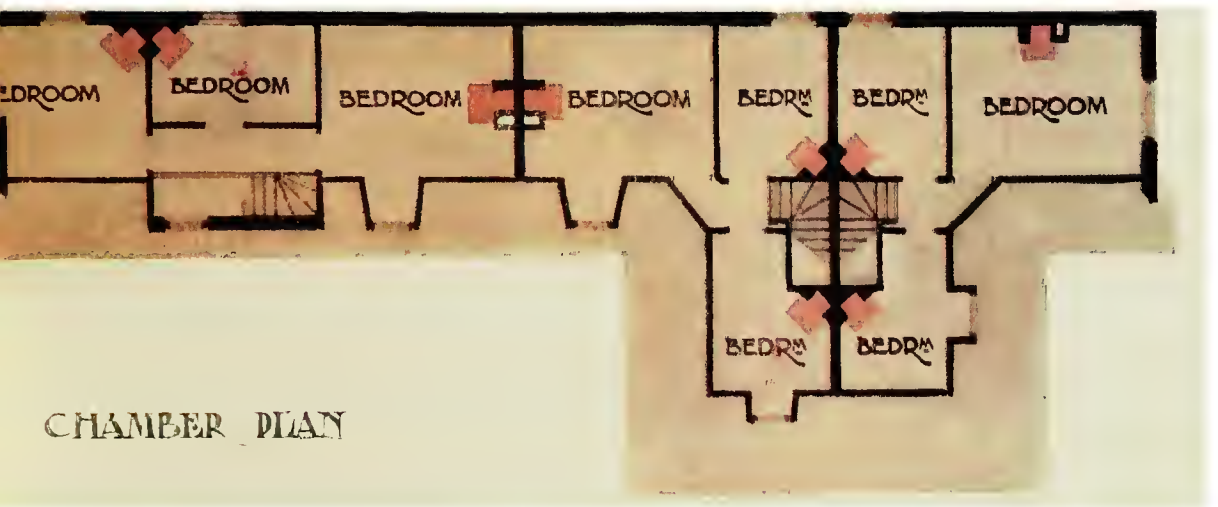
This same sentiment pervades the modern house plan. From the days when Mr. Norman Shaw planned those finely designed ingles at Dawpool or at Ellerdale Road, Hampstead, the fireside ingle has been recognized as one of the most



A ROW OF THATCHED COTTAGES.

FRONT

Edwin L. Lu



VATION

THE DRAWING BY HAROLD STEVENS.

Architect.

pleasing and luxurious features of modern house planning. Yet one may doubt if its popularity is due solely, or even chiefly, to its design or to its comfort. Had we not known the quaint charm of the cottage and farmhouse ingle, or remembered the romantic feelings with which we associated it in our childhood, it is probable that we should not derive quite the same pleasure from our fireside. It is the ingle's old-world association, not its shape, that gives it the quaintness we prize so highly. Many of the plans here illustrated will bear witness to the popularity of the ingle. In Mr. Mitchell's house in Berkshire we find the ingle happily extended to even the chamber plan.

A second feature in the modern house plan which is hallowed by the romance of the old farm and manor house, is the dwelling-hall. Like the ingle, it owes its revival very largely to Mr. Norman Shaw, or at least its establishment as an essential part of the modern house.

We have seen how, in the mid-Victorian days, the hall became degraded to a passage, cold and cheerless; it was lighted from a window on the first stair landing, or by a glimmer that struggled through the narrow well-hole from a skylight far above. No sense of warmth, or comfort, or hospitality struck the visitor on entering the house, nor was it deemed necessary that a house should express any sentiment in those prosaic days. How different is the picture that presents itself on entering even a small house to-day!

The treatment of the staircase, again, has undergone a change; for instead of crawling along the side of the passage-hall in two long flights, we often find it, even in a middle-class house, in a more or less square compartment of its own, which is entered through an open screen or archway from the hall, and which may be readily curtained off, or even shut off by a door; and thus the draught of cold air from the upper landings is prevented from descending into the hall, and this improvement adds to the comfort of every room on the ground floor. This, too, is but a revival of an earlier way of arranging the staircase.

Mr. Baillie Scott shows this arrangement in his

house at Hurlingham (page 48), and it is adopted by Mr. Voysey in the cottage-house at Bushey (page 54).

The modern house is remarkable also for what may be called the pictorial treatment of the interior.

We cannot hope, in our colder climate, and under our gray skies, to obtain in our homes a great wealth of colour united to glowing vistas. But a vista does not depend upon colour for its principal charm. It is the stimulus to the imagination wherein that lies. It is the glimpse beyond the immediate surroundings, partly hidden and partly revealed, that excites the desire to go and explore those parts to which distance has lent a certain enchantment. It is just in this respect that the hall and staircase, with able handling, can be made so effective. In this imaginative treatment of the interior of small houses, Mr. Baillie Scott has struck out a path for himself, and followed it with remarkable success. His plans are always interesting, because there is always that in them which is beyond the purely economical and the severely practical, which often means the severely commonplace. A good plan is all the more delightful if it contains a little day-dreaming. To be sure, the economical and practical are absolutely essential; no one denies it, but let him who prides himself on his practical planning remember always that practical planning is not sufficient to make a fine interior. There must be poetry as well as mathematics; and, speaking for myself, and probably for many others too, one would rather have the poetry and a little inconvenience, than sacrifice the poetry for a plan of immaculate economy.

But there is even a practical objection to the economical plan; there are no little chinks in it for closets and cupboards, so dearly loved of the orderly housewife.

Let it not be thought for a moment that economical or practical planning is here deprecated. What we should remember is the fact that its universal acknowledgment often obscures the claims of the imagination to its share in the plan. Practical planning is more essential in these luxurious days than at any time in the past, although one cannot read Bacon's essay " On

Building," without being struck by the attention he pays to practical details. He hints, for example, at the necessity of keeping the smell of the cooking confined to the servants' quarters, and it is a precaution as essential to-day in the small house as it was then in the magnificent mansion of his imagination.

The increase in domestic luxury is indeed one of the characteristics of our time, and the architect must be alert to supply the demand. What more remarkable example of the increased comfort of modern living could be cited than the lighting of our houses ? In the early Victorian days it was still necessary to stand shivering on a cold winter's morning, vainly striving to light the sulphur-tipped splint from the tinder ignited by a flint spark. The invention of the lucifer match for ever abolished those good old days. Still lamps had to be filled and candles snuffed, until, with the introduction of gas, it was necessary only to light a match and turn a tap to find one's self in a well-lighted room. At present, if one lies awake at night one has only to thrust one's hand under the pillow and press a button, and lo ! a brilliant electric lamp, pendant over the bed, shines forth as if by magic. We take a novel from the bedside, read a chapter, turn over to sleep, and in turning, almost unconsciously, we extinguish the light. And the architect must scheme his lighting with due regard to these requirements of modern luxury ; he must plan it out from the first, for the artificial lighting of a room is only a degree less important than the window lighting, which must be a matter of careful study also to the designer of modern homes.

As with the lighting, so, too, with the heating. The modern house, to meet the required standard of comfort, must have its open fires supplemented by radiators. It is only by heating the stair landings and passages that cold draughts can be prevented, and the temperature outside a dwelling-room be raised sufficiently to prevent cold air from blowing under the door to the discomfort of those sitting around the fire. At one time, baths were the luxury of the rich, now they are provided in the smallest cottage. Thus the cleverly planned Pair of Little

Cottages, by Mr. Prentice, (see colour-plate), has a bathroom, while those by Mr. Lionel Crane (pp. 53, 96) and by Mr. F. W. Troup have baths provided in the scullery, in close proximity to the boiler. Mr. Troup shows in his plan an ingenious arrangement of doors whereby the corner of the scullery containing the bath is screened off to make a private bathroom (page 95).

Until comparatively recent days bathrooms were not provided even in large houses; now in the middle-sized house we consider it essential to provide a bathroom containing a lavatory, and we need a housemaid's closet too, and a lavatory and cloak room in the vicinity of the front entrance; whereas formerly the only accommodation there provided was a stand for hats and coats.

Even our most practical architect will not deny that the plan is not the only consideration that requires his care, and although he may object to give his elevations any thought until his plan is irrevocably fixed, he will admit the necessity of considering his materials, even though his chief care would probably be to secure those whose hard texture not only guaranteed their durability but ensured their remaining bright and clean and red. Alas for the many houses irritatingly crude in colour and hard in treatment, they prove how many house builders there are who have not yet awakened to the idea that there is an artistic treatment of material.

Perhaps there are few architects who study their material so carefully, or who succeed with it so well, as Mr. Lutyens. His buildings are a pleasure to study on this account alone, and although a very fair representation of his skilful treatment is given in the photographs of the entrance pavement at Monkton (page 80), and the stone walling of the house "High Walls" (p. 70), yet the work itself must be seen to be fully appreciated. The student of this book will consider with delight the new designs by Mr. Lutyens which are reproduced in colour.

Mr. Guy Dawber, in like manner, is most careful of his material, and his houses show how thoroughly he has mastered its proper manipulation.

The Home from Outside

The treatment of brickwork is discussed at some length earlier in this article, but one may add that the majority of architects still fail to give due consideration to the artistic use of that material, and therefore one is not surprised to find that the general public is altogether ignorant of the subject. Most people would at once condemn as bad workmanship the admirable paving of Mr. Lutyens' circular forecourt at Monkton, drawing attention to the fact that it is not perfectly regular and closely jointed. Not very long ago even architects themselves, with but few exceptions, gave no consideration to surface texture. The right treatment of material is, in fact, one of the excellences of recent domestic work.

As might be expected, those who are careful of the right quality of their material are careful also that it is rightly put together; in other words, that the construction is sound and sincere. Yet there are two directions in which the best intentioned are tempted to go astray. One is the casing of steel joists to look like solid oak beams, and the so-called half-timber construction is the second. In many districts the bye-laws prohibit half-timber work, unless it is backed by a brick wall. This does not deter the half-timber enthusiast, for he nails his half-timber inch deal boarding to the wall, puts plaster in between, and lo! a timber house of the old style. All timber construction must be solid, and must be of oak; the oak pins will then be an integral part of the construction, and not stuck on to deal boards to mislead the ignorant.

As to interior decoration, the most notable advance belongs to these later days, and is the beneficent result of the Arts and Crafts movement. Thanks to the ever widening influence of this splendid renaissance of the crafts, the methods and materials of house furnishing and decoration have come under its sway one by one. So that the house of to-day can present modelled plaster ceilings that bear comparison with those of the later Renaissance, and has exchanged the cast-iron rain-water head and down pipe for one of cast lead, decorated—and often very originally decorated—in accordance with the best traditions of the craft.

The Modern Home

Gas and electric light fittings, door furniture and fire grates, demonstrate also the power of the craft revival to re-awaken to a life of beauty those objects of everyday use which had been degraded by neglect, and the cheap methods of machine production.

Meantime, while the house may be all beautiful within, its outward aspect has not been neglected, as indeed the illustrations of this volume will prove beyond doubt. It has already been shown how the earlier and more picturesque gabled house gave place in the later Renaissance to the symmetrical façade with hipped roof, and the earlier casement windows became sash windows set under brick arches. Two allied but yet differing styles of traditional house design thus presented themselves to those who had set before themselves the task of reviving English domestic architecture. Mr. Norman Shaw, in his earlier work, inclined to the gabled style, but in his later designs, as illustrated by his noble house at Queen's Gate, he adopted the latter. It is a remarkable fact that Mr. Shaw not only attempted to employ, but entirely succeeded in employing, the casement window and sash window side by side in the same house. In the domestic architecture of the present time some architects show a preference for the picturesque, others for the more formal and stately. Some of Mr. Ernest Newton's larger houses are extremely fine examples of the latter treatment, and happily one at Godstone is here illustrated on page 36. There is a restraint about this design, a quiet and noble dignity, that marks the work of the accomplished architect. The interior, too, presents the same largeness of conception.

In contrast with this is the house by Messrs. Ernest George and Yeates (page 34), with its casement windows and overhanging gables; and Mr. Schultz is represented on page 68 by a symmetrical façade of quite a different character from that of the English Renaissance, it being a clever symmetrical treatment of the local Kent and Sussex style of building. The work of Mr. E. J. May, who has built many excellent houses, is represented by three good things, among which is a very happily proportioned cottage of timber and roughcast (page 93). Such work

contrasts admirably with the sternly fine cottages by Mr. Reginald Blomfield, A.R.A. (pp. 66 and 67), and the small houses by Mr. Horace Field. Mr. Voysey has practically made a style unto himself, so individual and characteristic is the way in which he treats his subject. He has succeeded also in reducing applied ornament to its simplest terms, or rather to an irreducible minimum, trusting rather to the proportions of his interiors for effect, than to any elaboration of moulding or applied decoration.

With the revival of domestic architecture has come the revived interest in garden design. The formal and stately gardens of the Queen Anne days and the early Georgian period, with their lines of clipped yew hedge, were in admirable harmony with the equally formal and stately house; but this formality produced a reaction in the Victorian days, when the "landscape gardener" attempted to make a small rectangular garden picturesque by carrying a sinuous walk round it, and when the flowers were restricted to long lines of bedding-out plants in crude and gaudy colouring. There has always been war to the knife between the landscape gardeners and the believers in formal gardens. It is difficult to say why, because each side should perceive that there is a proper place for, and a proper limit to, each of the rival styles. Recently, the architect has once more taken up the design of the garden which he should never have relinquished, building its terraces and walled courts, planning its rose pergolas and grass alleys, its herbaceous borders and its lily ponds, its retreats and arbours, all carefully studied in connection with the architectural lines of the house and the points of view from which the house makes the most agreeable pictures of gable and chimney. The garden thus planned is formal as it lies around the house, only to become "landscape" as it retreats from it and turns into the wild garden, the shrubbery and the woodland walk. The house thus becomes the chief adornment of the garden, combining with the foreground of stately lilies and delphiniums to form a delightful picture; and the garden becomes the extension of the house, enticing its inmates by sunny seats and shaded walks to outdoor life.

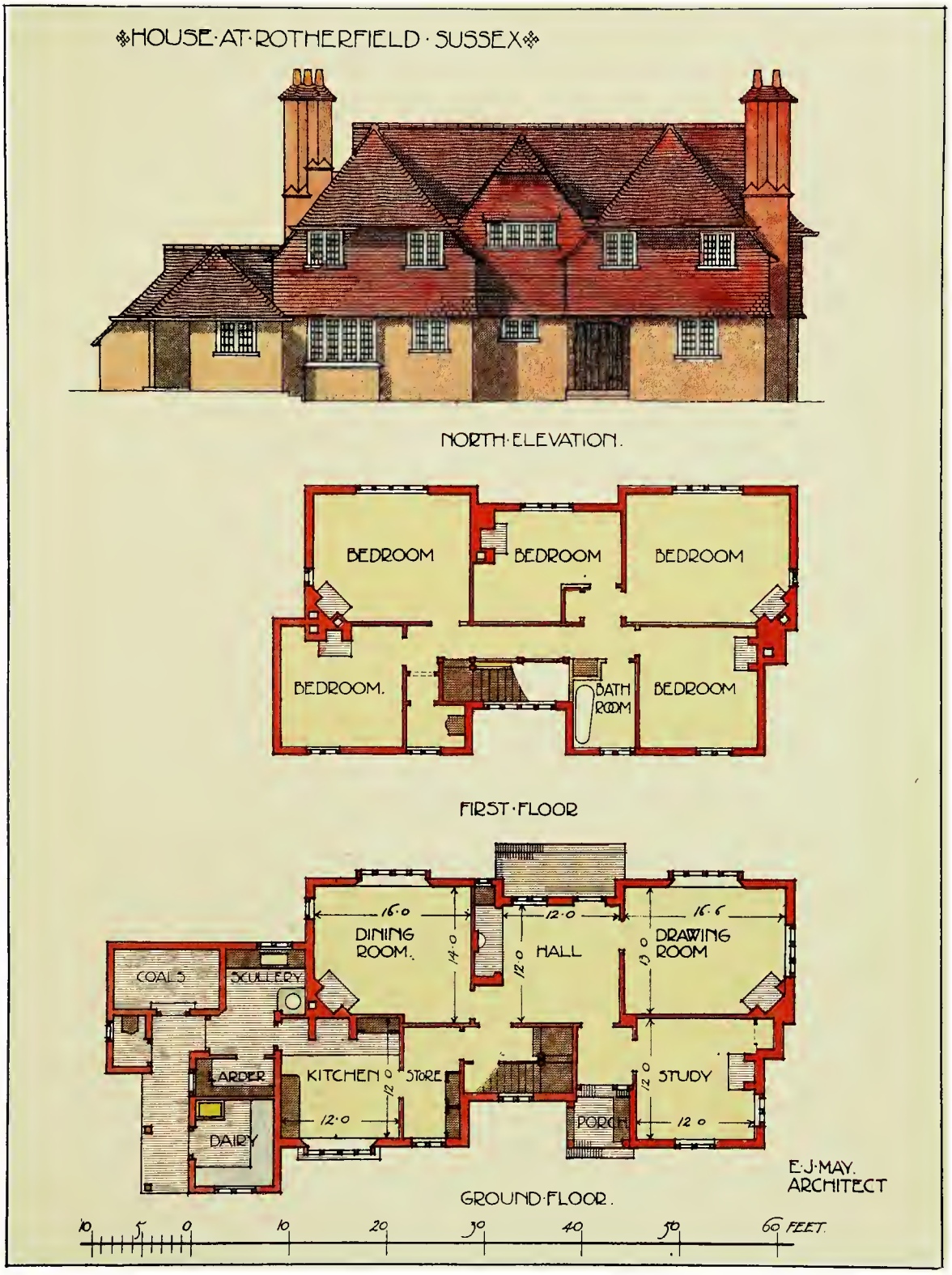
The Modern Home

Nor is the recent development of garden planning restricted to the homes of the wealthy, for a garden of reasonable size is now considered almost as essential to the small house and the cottage, as the various schemes for the formation of garden cities bear witness. There is, at last, a revolt—and it is one of the most inspiriting signs of the times—against the tyranny of the land speculator and jerry builder, a revolt against the dreariness of being confined in the long, unlovely street, the pretentious villa, or the slum court. There is a demand for pure air and the association of Nature's beauty with everyday life. The modern improvements in the means of locomotion have assisted this revolt, and emphasized this demand, and it is the privilege of the modern architect, as well as his gain, to play his part by designing small houses, not only economical in plan and in cost, but reticent in design.

Many of the plans for cottages and quite small houses here illustrated show how well this demand is already being met, and how possible it is not only to reduce the cost by the grouping of several cottages together, but even to enhance their architectural character at the same time. Thus the cottages by Mr. Charles Spooner at Bury (page 61), by Mr. H. Tanner, Junr., at Shackleford (page 57), and by Mr. Lionel Crane and by Mr. Geoffry Lucas (page 49, see colour-plate also), gain by the long unbroken line of roof interrupted only by chimneys of sufficient mass, and of good design.

The curb which has recently been placed upon the ridiculous and unintelligent administration of building bye-laws has materially assisted the architect both in his elevations and in his estimates, and one looks forward with confidence, as one obstacle after another is removed, to a great development in the future of the small house and garden to suit small incomes, and to the successful establishment of the claim of the cottage to share with the mansion in the advancement of English domestic architecture.

W. H. BIDLAKE



HOUSE AT ROTHERFIELD, SUSSEX, THE MASONRY IN MIXED TINTS OF RED BRICK, THE ROOF AND THE UPPER PART OF THE WALLS HUNG WITH TILES FROM KENT, THE WINDOWS AND THE EXTERNAL WOODWORK OF OAK.

E. J. May, Architect

Winton Newman del

DESIGNS FOR A HOUSE AT BROMLEY, IN KENT

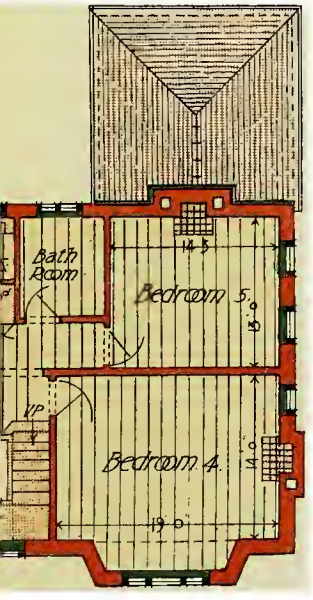
Ernest Newton, A

Feet

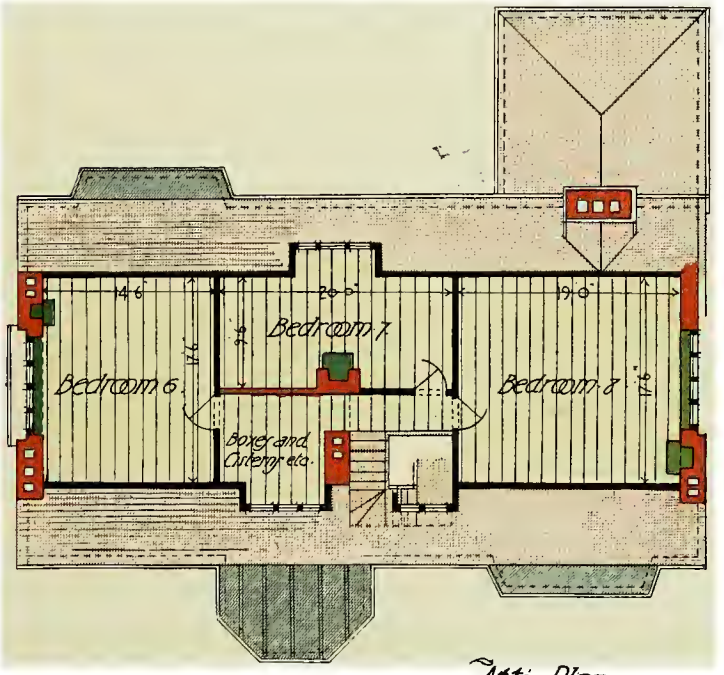
20 30 40

ation

Garden Front



First Floor Plan



Attic Plan

Ernest Newton. Archt
1 Raymond Buildings
Gray's Inn WC

MATERIALS: ROUGHCASTED BRICK, RED TILES, GREEN WOODWORK

ect

DESIGN FOR A SMALL FARM-HOUSE AT STEEPLE CLAYDON, BUCKS, FOR HENRY ARTHUR JONES, ESQ.

Charles Spooner, Architect

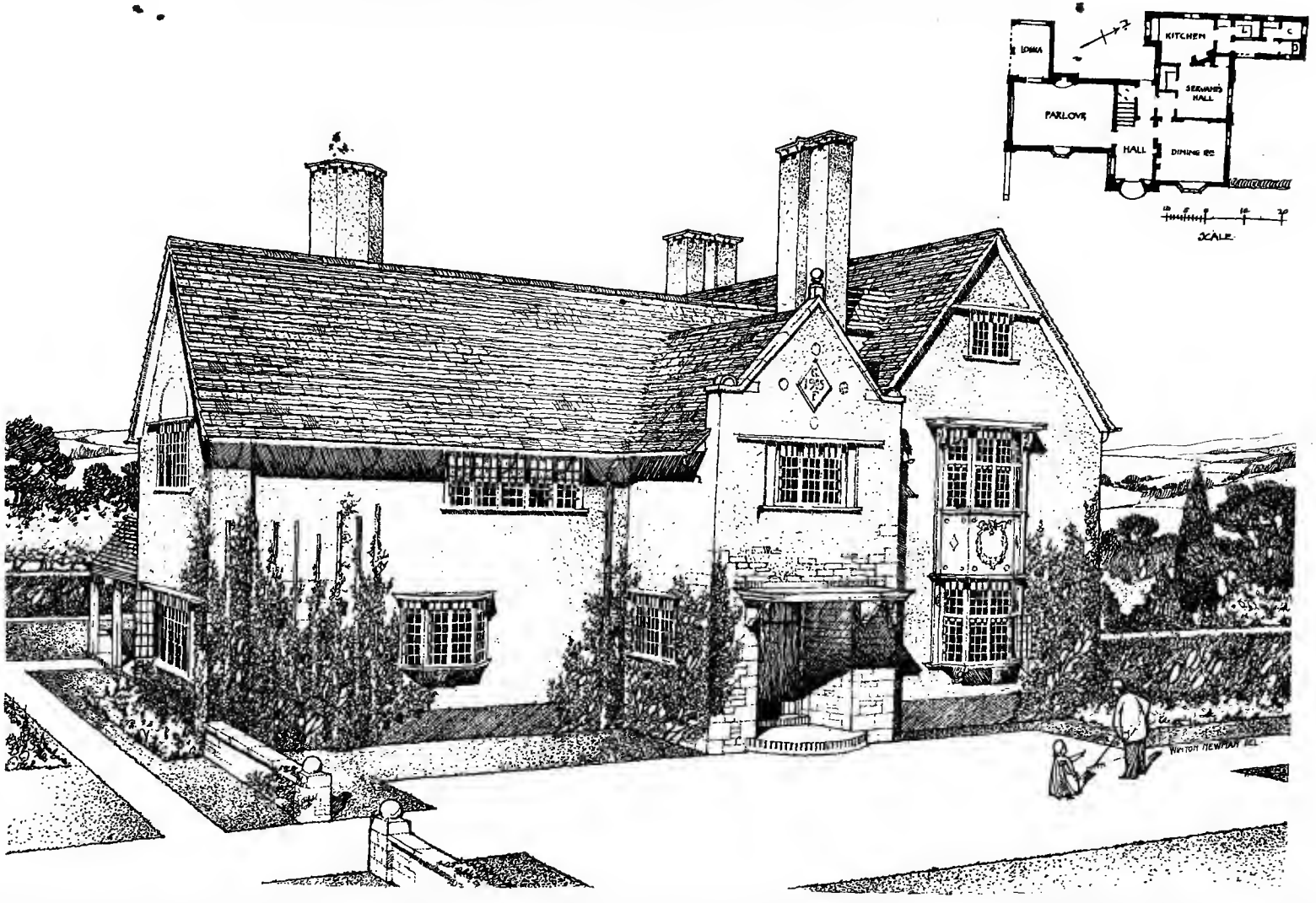
THE HEADMASTER'S HOUSE, BRITANNIA ROYAL NAVAL COLLEGE, DARTMOUTH. MATERIALS: RED BRICKS, PORTLAND STONE, AND CORNISH GRADED SLATES

Sir Aston Webb, R.A., Architect

The Home from Outside. Perspective Drawing with a Plan

A COUNTRY HOUSE NEAR NEWBURY. THE LOGGIA, THE BAY WINDOW AND THE EXTERNAL WOODWORK ARE OF OAK, THE WALLS OF LOCAL BRICK ROUGHCAST, AND THE ROOFING SLABS OF GLOUCESTERSHIRE STONE. THE STABLES AND LAUNDRY ARE PLACED SO AS TO FORM PART OF A SINGLE GROUP

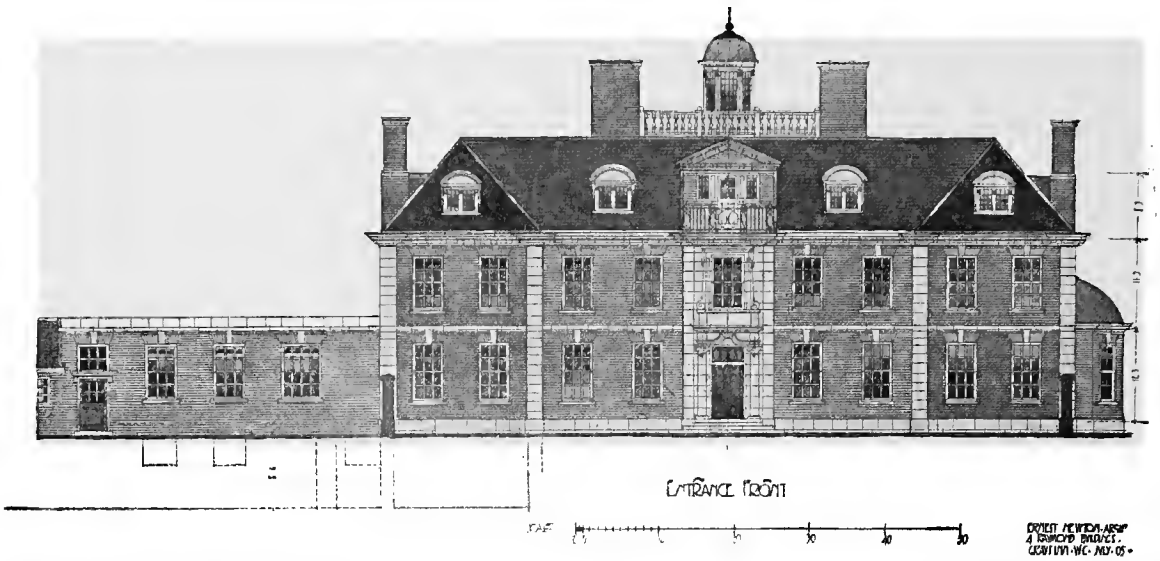
Ernest George and Yeates, Architects



HOUSE AT DENBIGH, IN NORTH WALES. BUILT OF BRICK AND ROUGHCAST, WITH A BLACK TARRED BASE. A ROOFING OF GREY-GREEN SLATES, GRADUATED IN SIZE AND TEXTURE FROM EAVES TO RIDGE. THE ENTRANCE IS OF OLD STONE, MERGING INTO THE ROUGHCAST WITHOUT ANY STRONG LINE OF DEMARCATION. THE HOUSE, STANDING IN AN OLD ORCHARD, LOOKS OUT ACROSS A VALLEY WITH MOUNTAINS ON ALL SIDES. THE INTERIOR OF THE HOUSE IS TREATED VERY SIMPLY, WITH ORNAMENTED PLASTER CEILINGS AND WITH OAK FLOORS

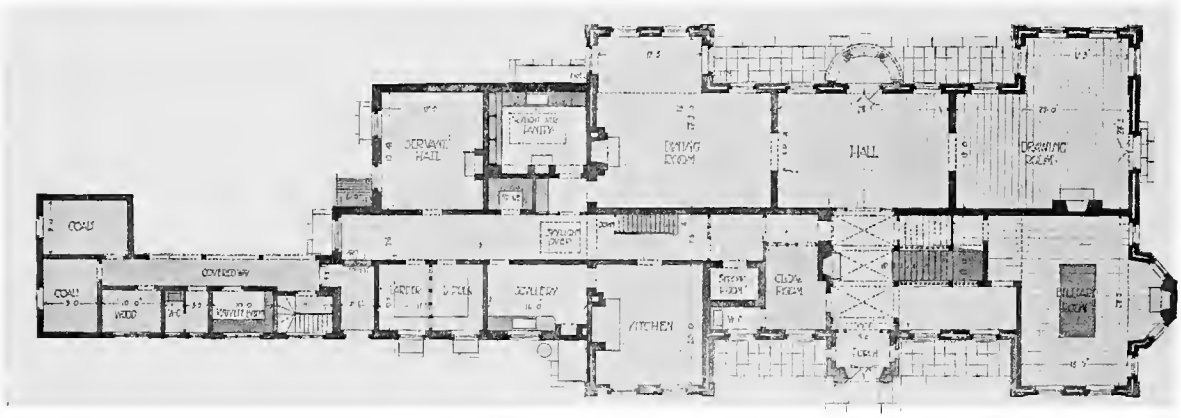
E. Guy Dawber, Architect

The Home from Outside. Elevations and a Plan



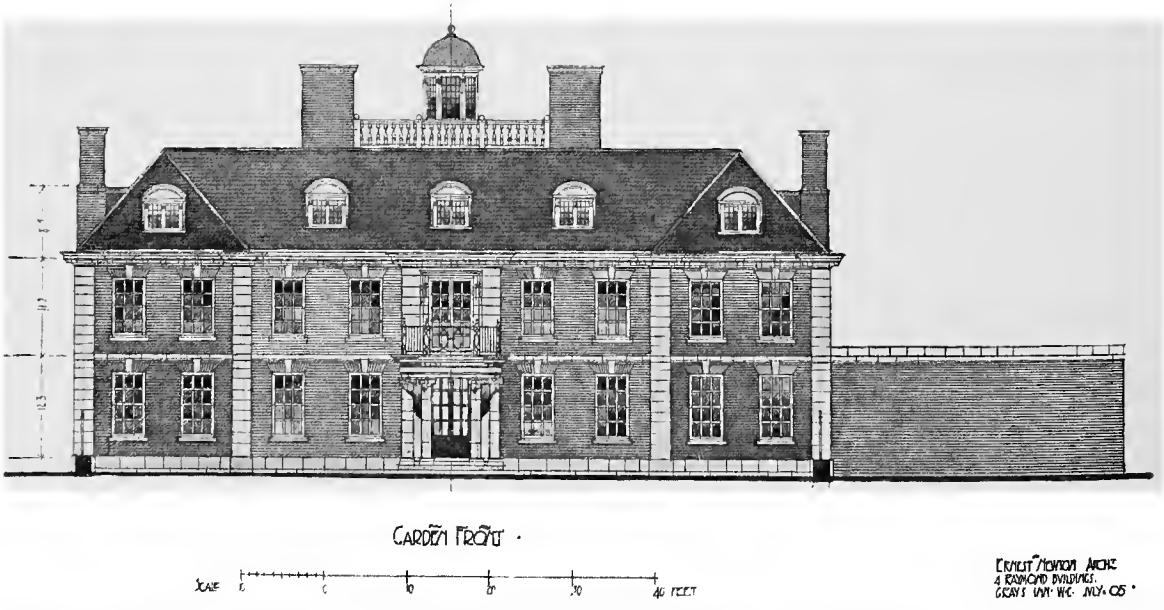
HOUSE NEAR GODSTONE, SURREY

THE ENTRANCE FRONT



HOUSE NEAR GODSTONE, SURREY

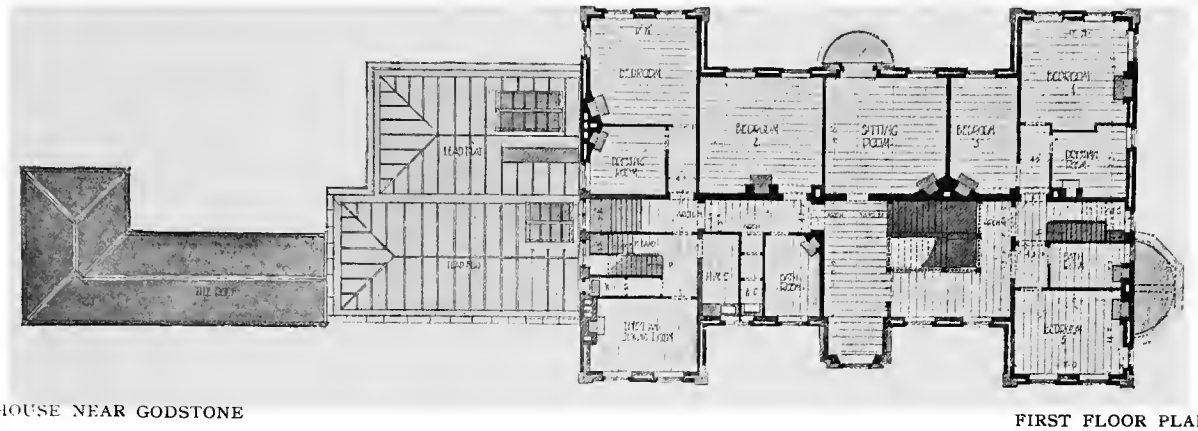
THE GROUND PLAN



HOUSE NEAR GODSTONE, SURREY. THE GARDEN FRONT. THE MATERIALS ARE ROUGH RED STOCKS WITH RED KILN-MADE BRICKS FOR ARCHES AND JAMBS; PORTLAND STONE DRESSINGS, THE ROOFING OF RED HAND-MADE TILES

Ernest Newton, Architect

The Home from Outside. Elevations and Plans

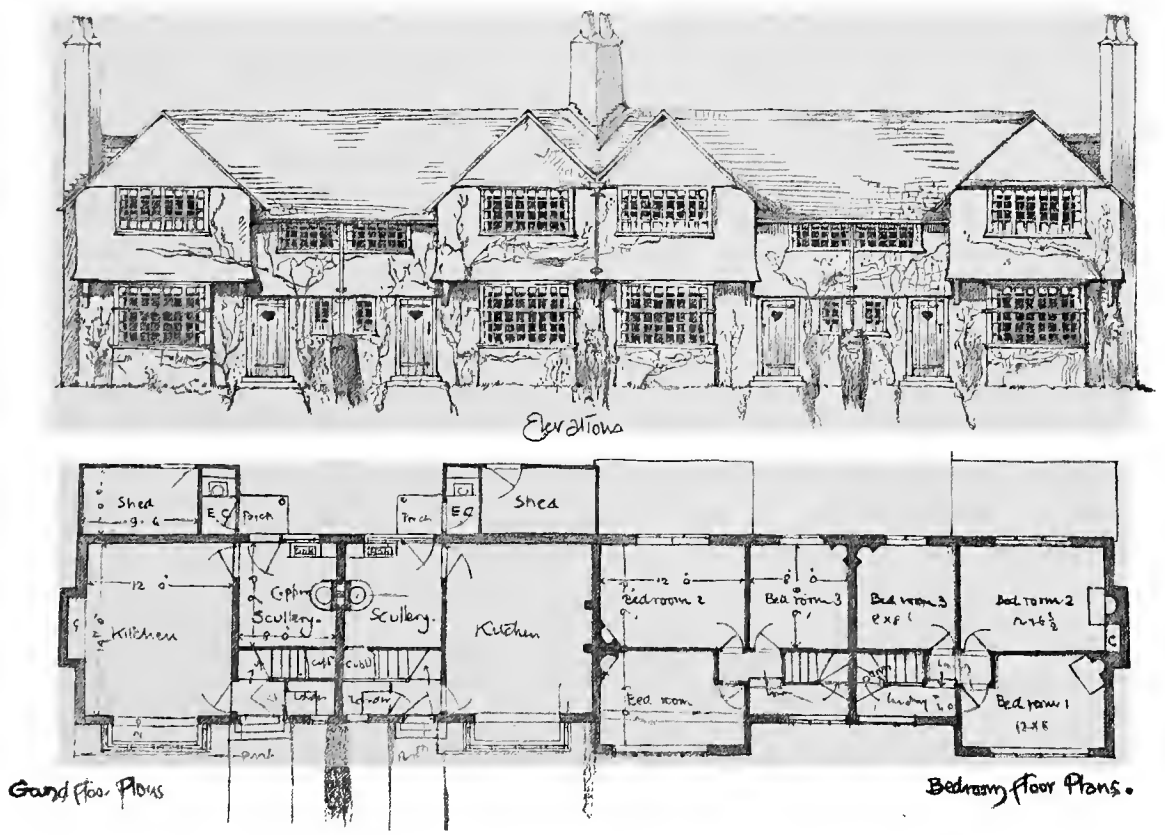


HOUSE NEAR GODSTONE

FIRST FLOOR PLAN

SEE OPPOSITE PAGE FOR THE ELEVATIONS

Ernest Newton, Architect



BLOCK OF FOUR COTTAGES

FROM A PENCIL SKETCH

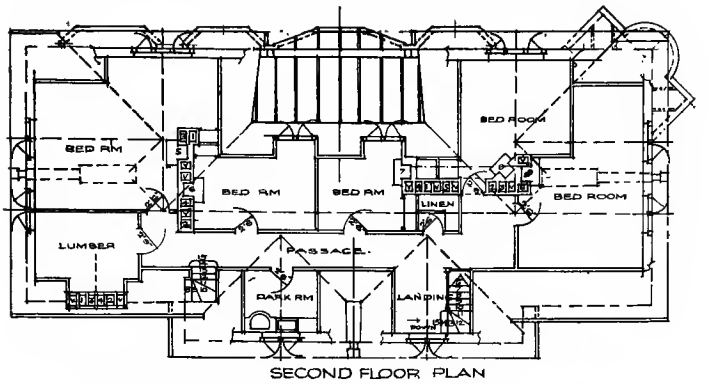
Charles Spooner, Architect

The Home from Outside. Elevations

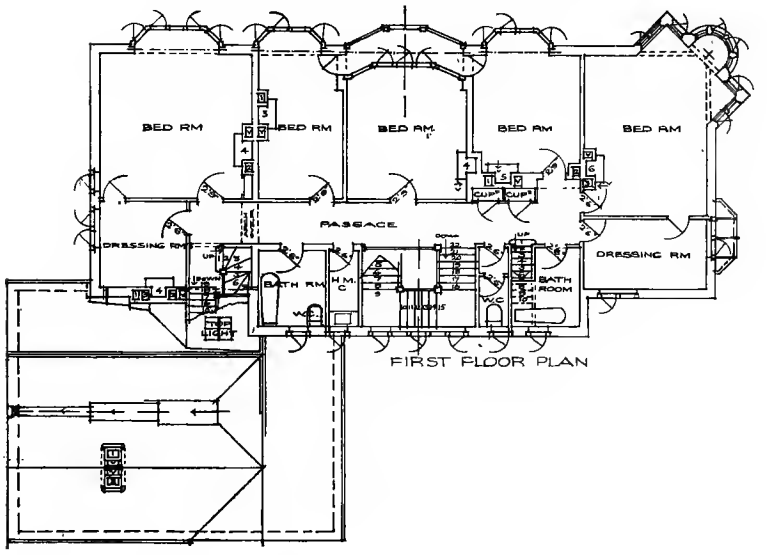
HOUSE AT HARROW WEALD. ROOFING OF DARK TILES, BRIGHT RED WALL-TILES, THE WALLS WHITE BELOW

Arnold Mitchell, Architect

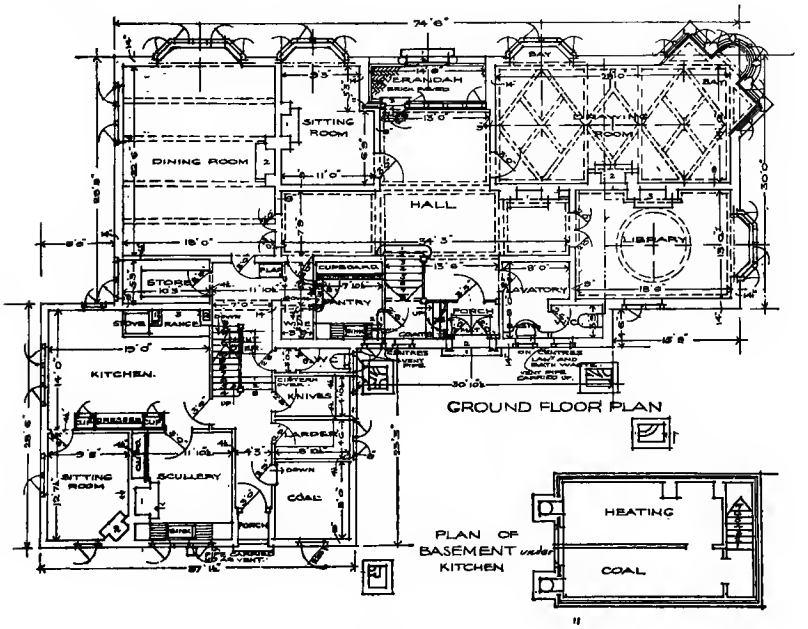
Plans for a House at Harrow Weald



SECOND FLOOR PLAN



FIRST FLOOR PLAN

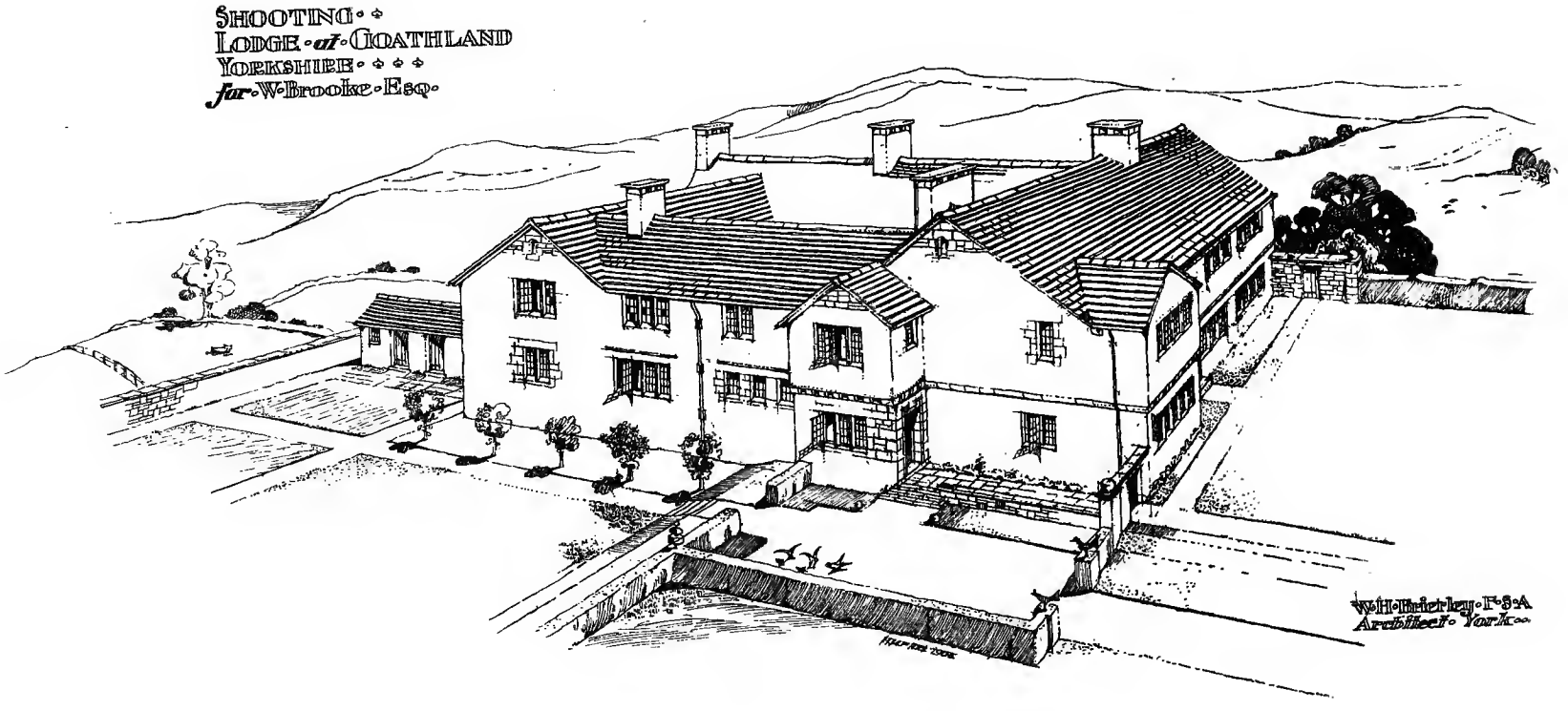


GROUND FLOOR PLAN

PLAN OF BASEMENT under KITCHEN

HOUSE AT HARROW WEALD. STUDY THE ELEVATIONS ON THE OPPOSITE PAGE

Arnold Mitchell, Architect



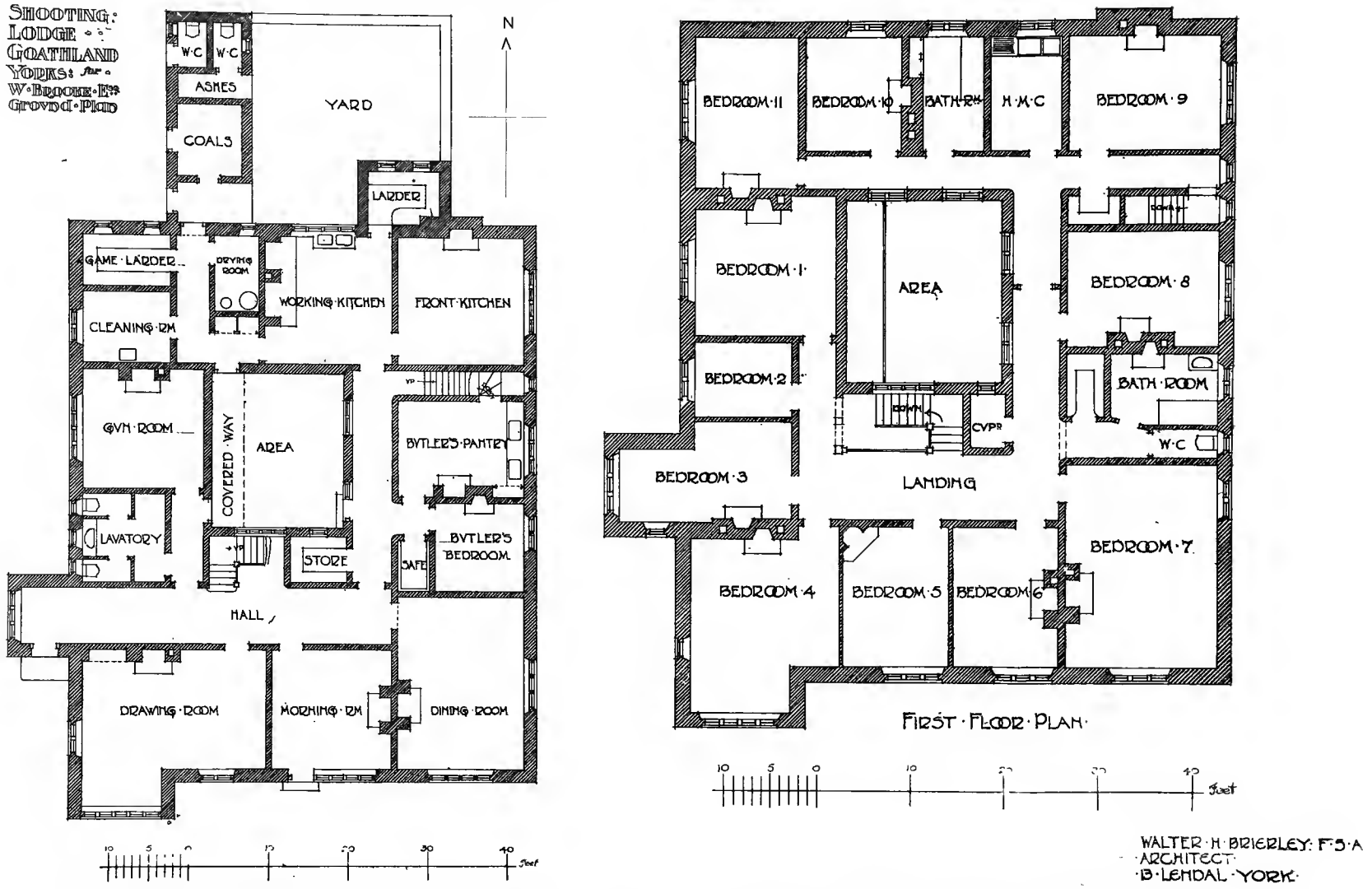
SHOOTING LODGE ON THE MOOR AT GOATHLAND, YORKSHIRE. THE MATERIALS ARE LOCAL RUBBLE FOR THE WALLS AND A LOCAL GRIT STONE FOR THE DRESSINGS. THE ROOFS ARE COVERED WITH GREY STONE FLAGS. VIEW FROM THE S.W.

Walter H. Brierley, Architect

THE HOME FROM OUTSIDE. Water-Colour Drawing

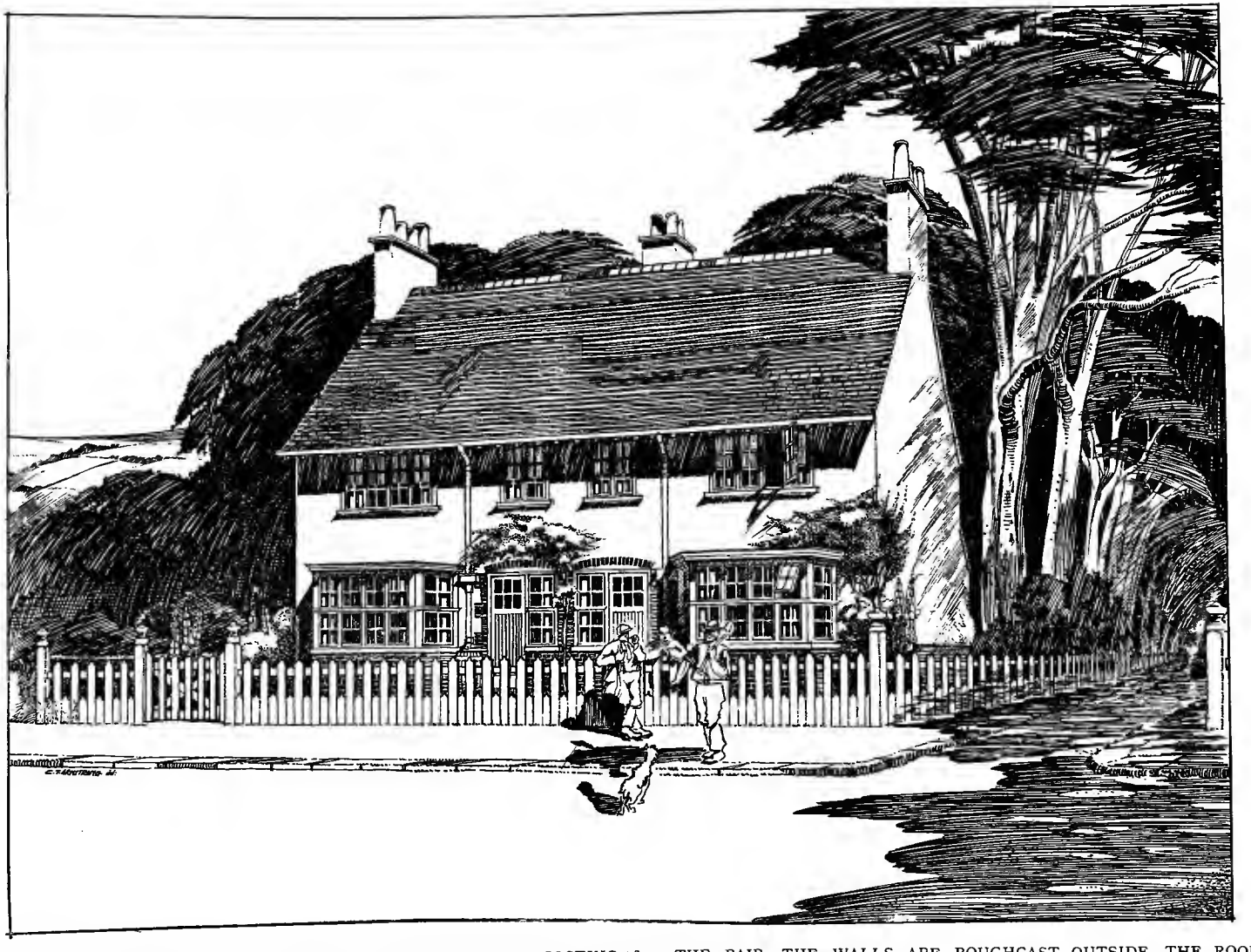
NOWER HILL, PINNER, SKETCH FOR ALTERATIONS. THE WALLS ARE ENTIRELY ROUGHCAST AND THE ROOFS COVERED WITH OLD HAND-MADE TILES. BEFORE THE ALTERATIONS THE HOUSE WAS OF NO DEFINITE CHARACTER. VARIOUS EXCRESSEURS HAD BEEN BUILT FROM 1830 TO 1870, AND THE HOUSE PRESENTED A MIXTURE OF WORK IN BRICK, PLASTER, AND HALF-TIMBER, WITH A ROOFING PARTLY OF TILES AND PARTLY OF SLATES

Cecil C. Brewer, Architect



PLANS OF A SHOOTING LODGE ON THE MOOR AT GOATHLAND, YORKSHIRE, FOR W. BROOKE, ESQ. SEE THE ILLUSTRATION ON THE OPPOSITE PAGE

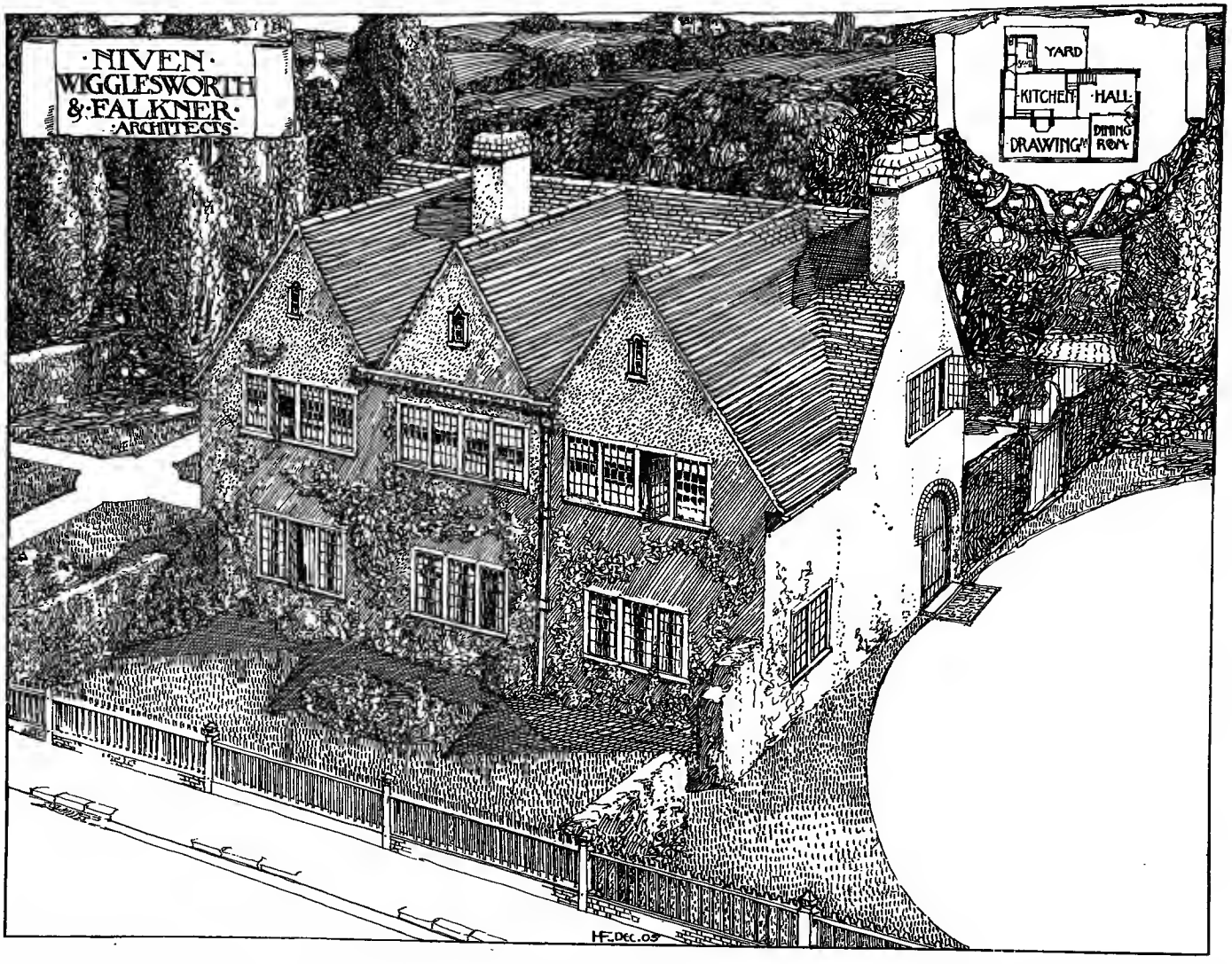
Walter H. Brierley, Architect



PAIR OF COTTAGES AT SOUTH MYMMS, HERTFORDSHIRE, COSTING £700 THE PAIR. THE WALLS ARE ROUGHCAST OUTSIDE, THE ROOF IS TILED, THE WOODWORK IS PAINTED WHITE

R. A. Briggs, Architect

The Home from Outside. Bird's-Eye View with a Plan

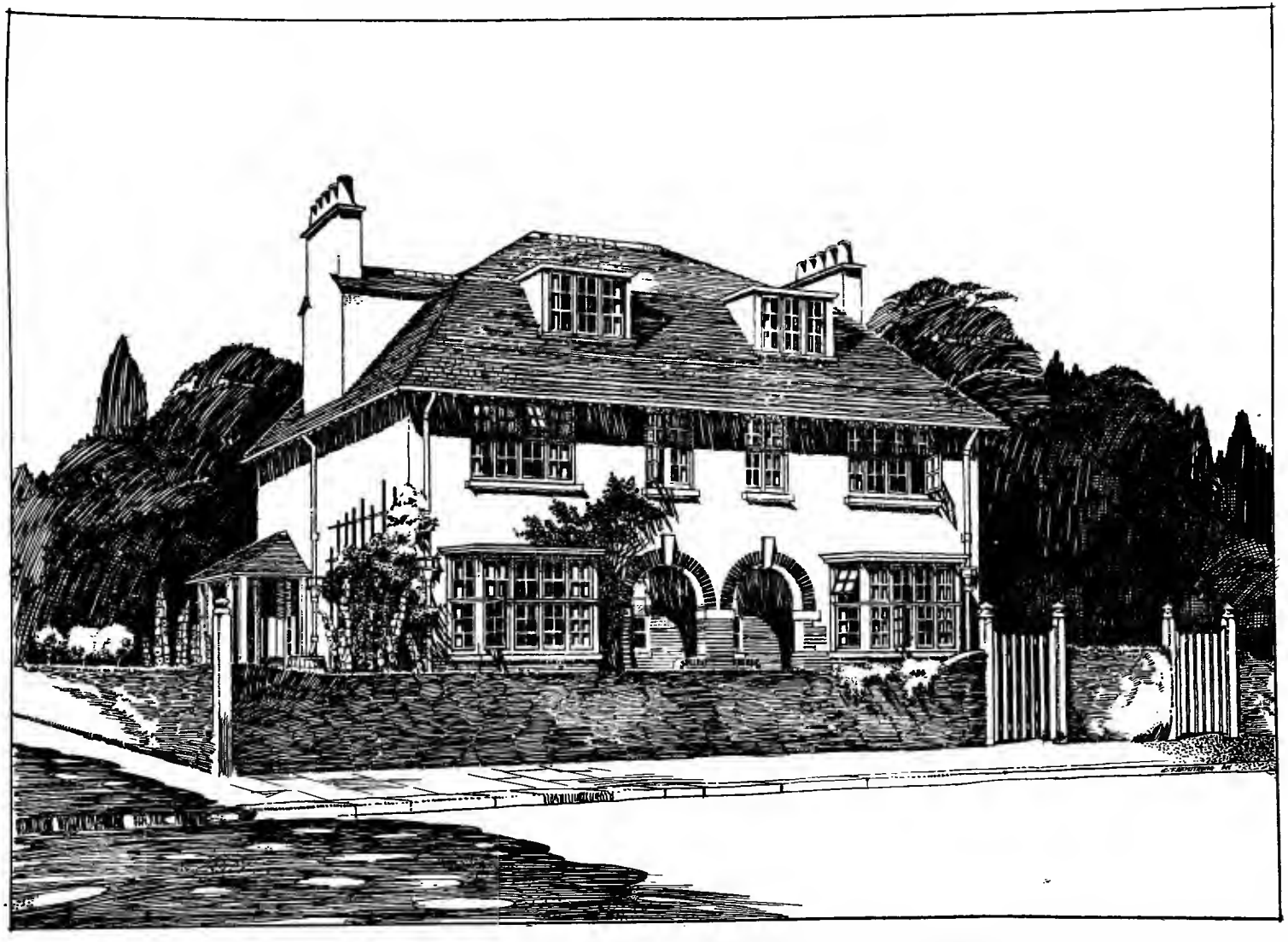


COTTAGE NEAR FARNHAM, BUILT OF BRICK AND ROUGHCAST, WITH A ROOFING OF TILES. REPRODUCED FROM A DRAWING BY H. FALKNER

Niven, Wigglesworth and Falkner, Architects

HOUSES AT WALTON-ON-THAMES, BUILT OF BRICKS AND ROUGHCAST, THE CORNICES OF RED BRICK IN THE GABLES, AND THE ROOF COVERED WITH ROUGH-TEXTURED TILES

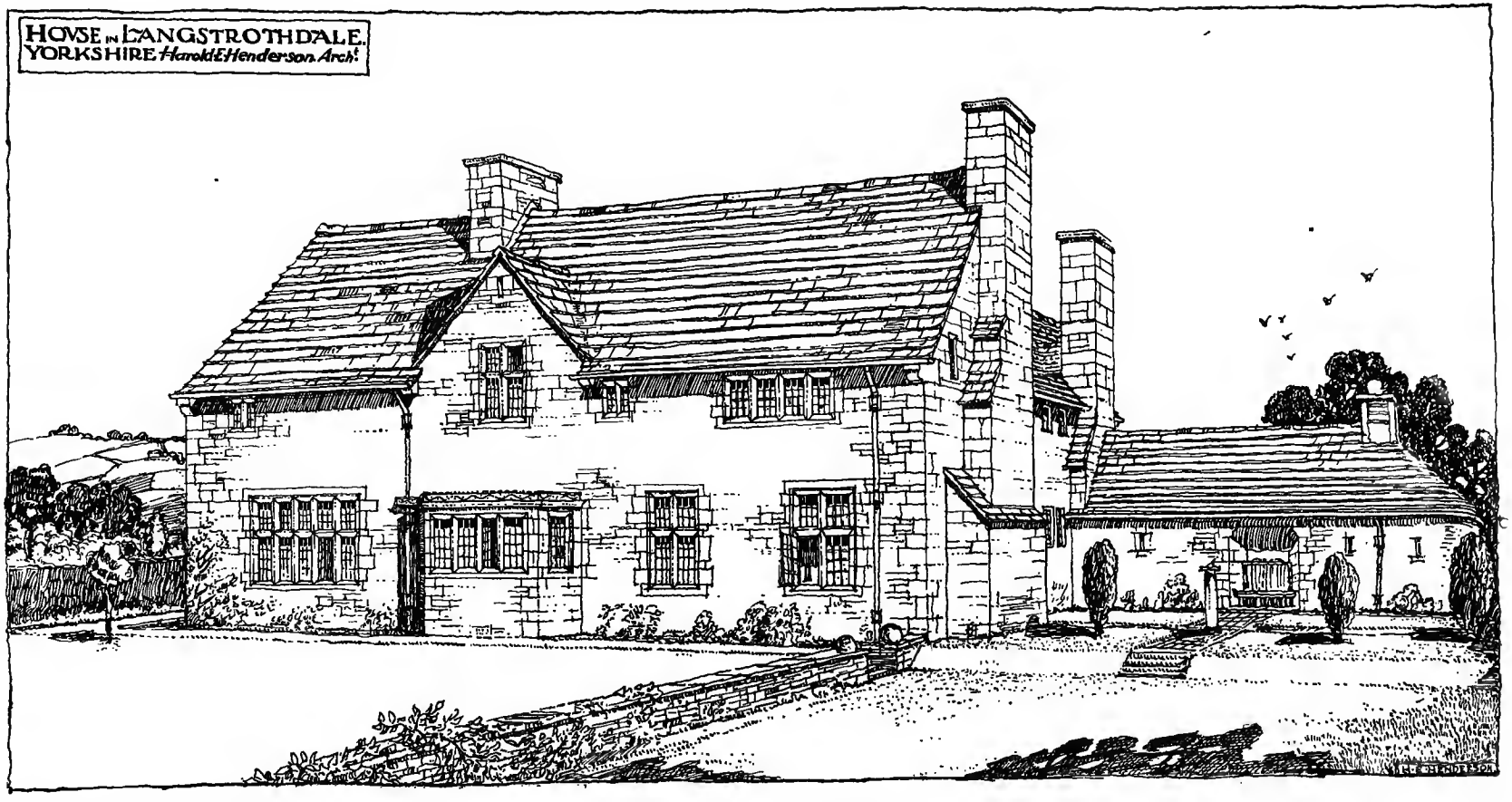
D. B. Niven and H. Wigglesworth, Architects



PAIR OF HOUSES AT SOUTH MYMMS, HERTFORDSHIRE, COSTING £1500 THE PAIR. THE WALLS ROUGHCAST OUTSIDE, THE ARCHES AND THE PLINTH OF RED BRICKS, THE ROOFS TILED, THE WOODWORK PAINTED WHITE

R. A. Briggs, Architect

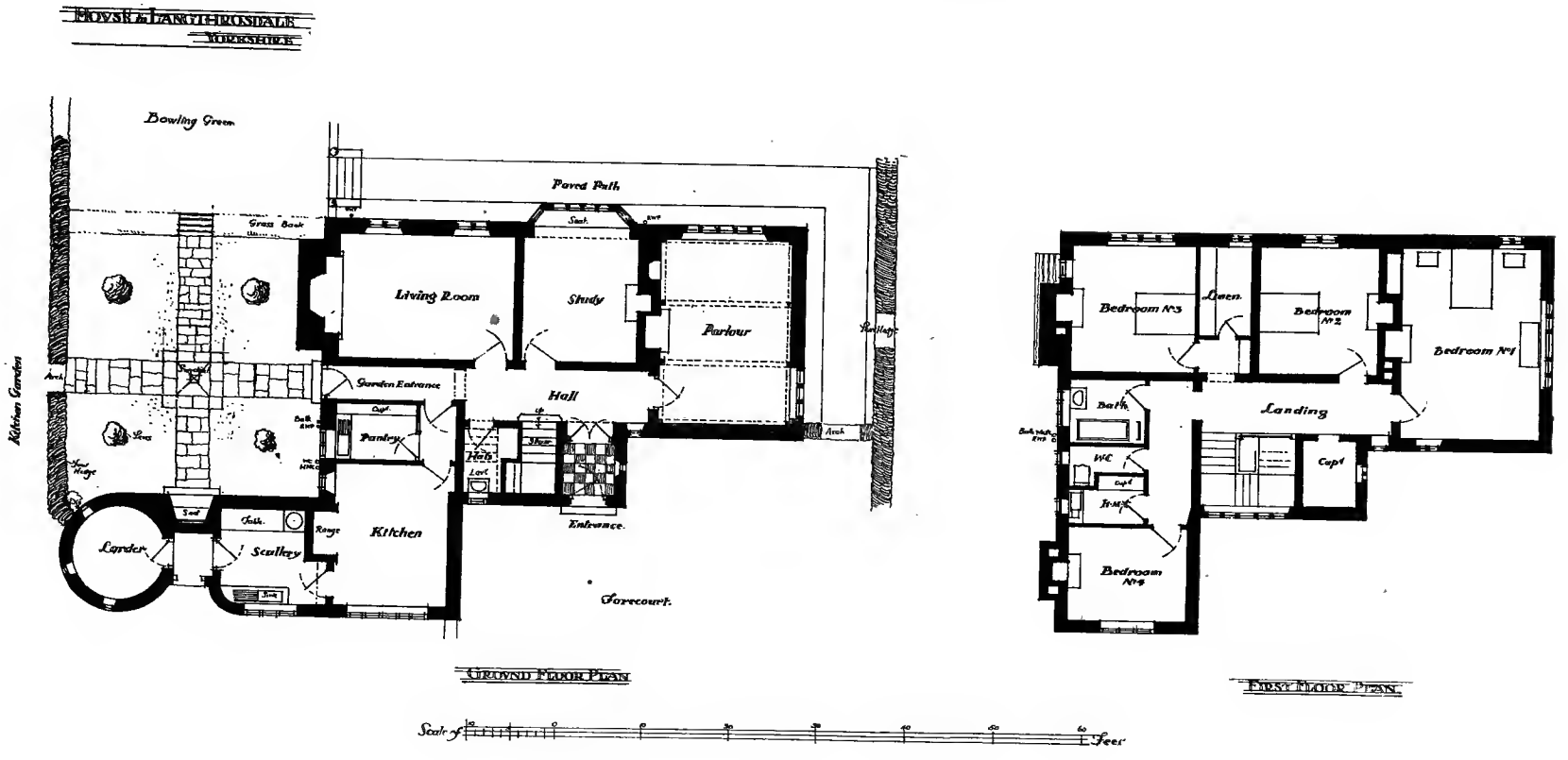
The Home from Outside. Perspective Drawing



A MOORLAND HOUSE IN YORKSHIRE, WITH WALLS OF LOCAL RUBBLE STONE AND ROUGH STONE SLATING FOR THE ROOFS. DESIGNED IN THE STYLE OF THE MOORLAND HOMESTEADS OF THE EIGHTEENTH CENTURY

Harold E. Henderson, Architect

Plans for a House in Yorkshire

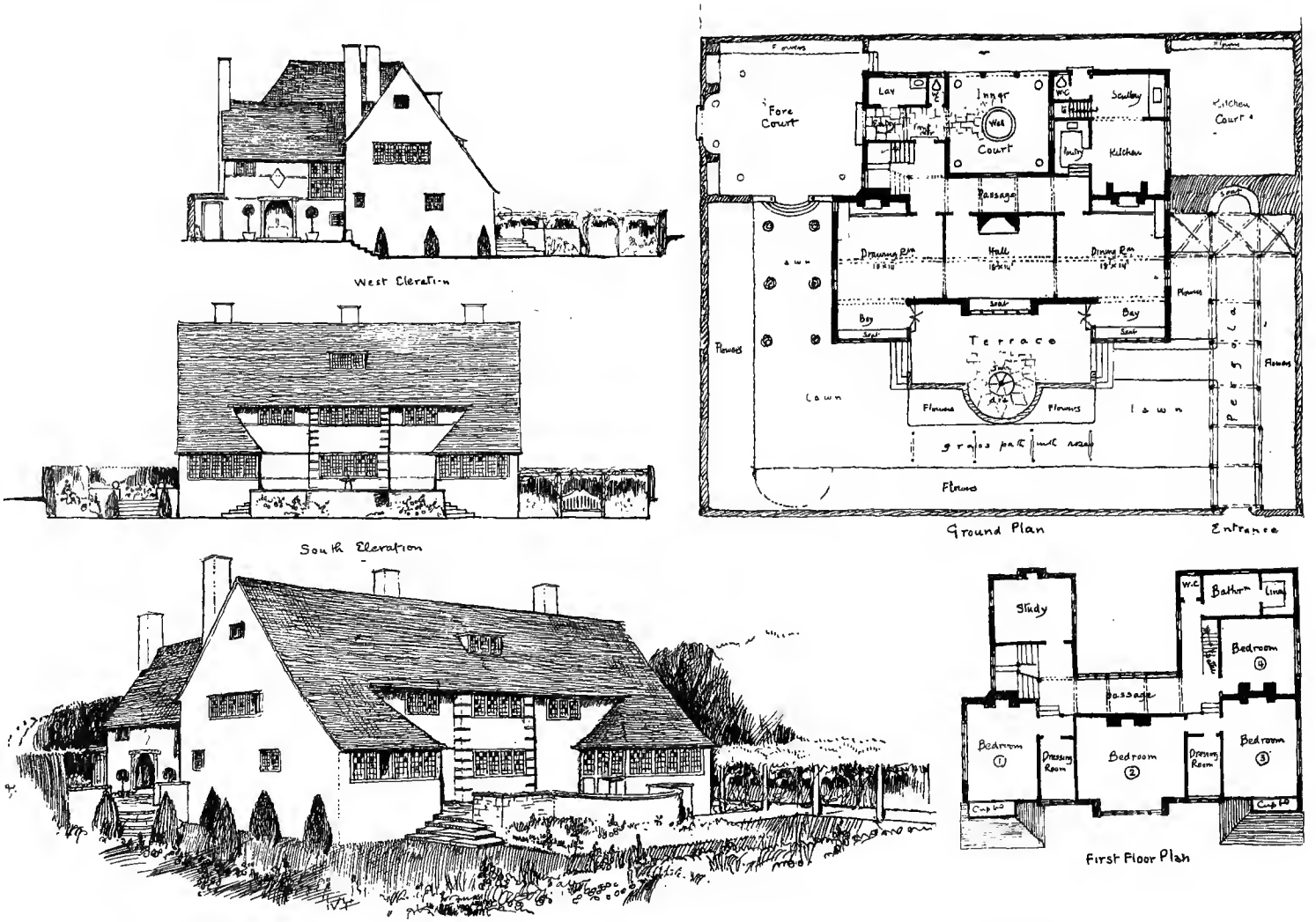


PLANS OF A MOORLAND HOUSE IN YORKSHIRE

SEE THE PERSPECTIVE DRAWING ON THE OPPOSITE PAGE

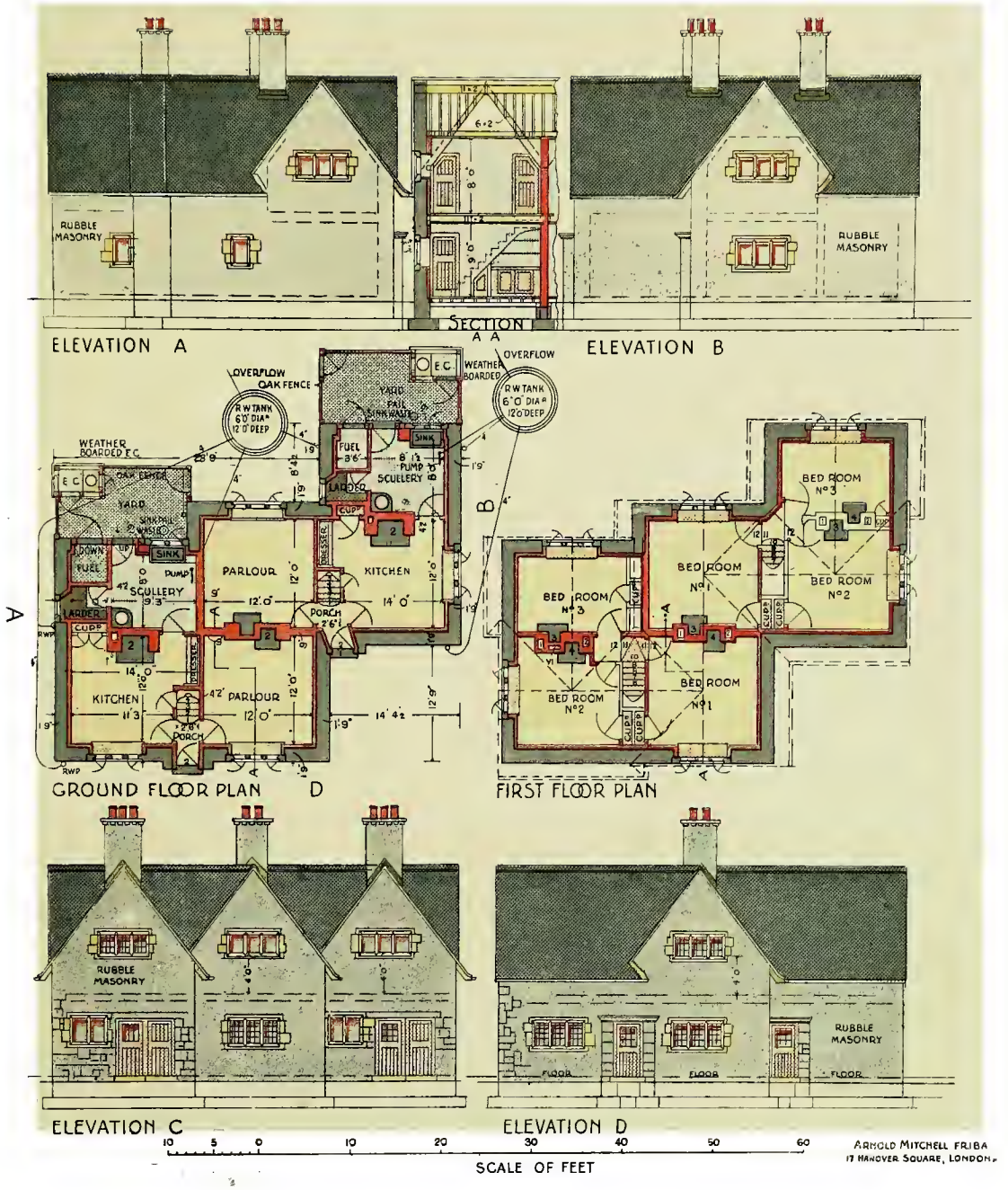
Harold E. Henderson, Architect

The Home from Outside. Perspective Elevations with Two Plans



PROPOSED HOUSE AT HURLINGHAM, ESTIMATED COST £1600. MATERIALS: BRICK WALLS COVERED WITH ROUGHCAST AND ROOFS OF FINE RED TILES

M. H. Baillie Scott, Architect

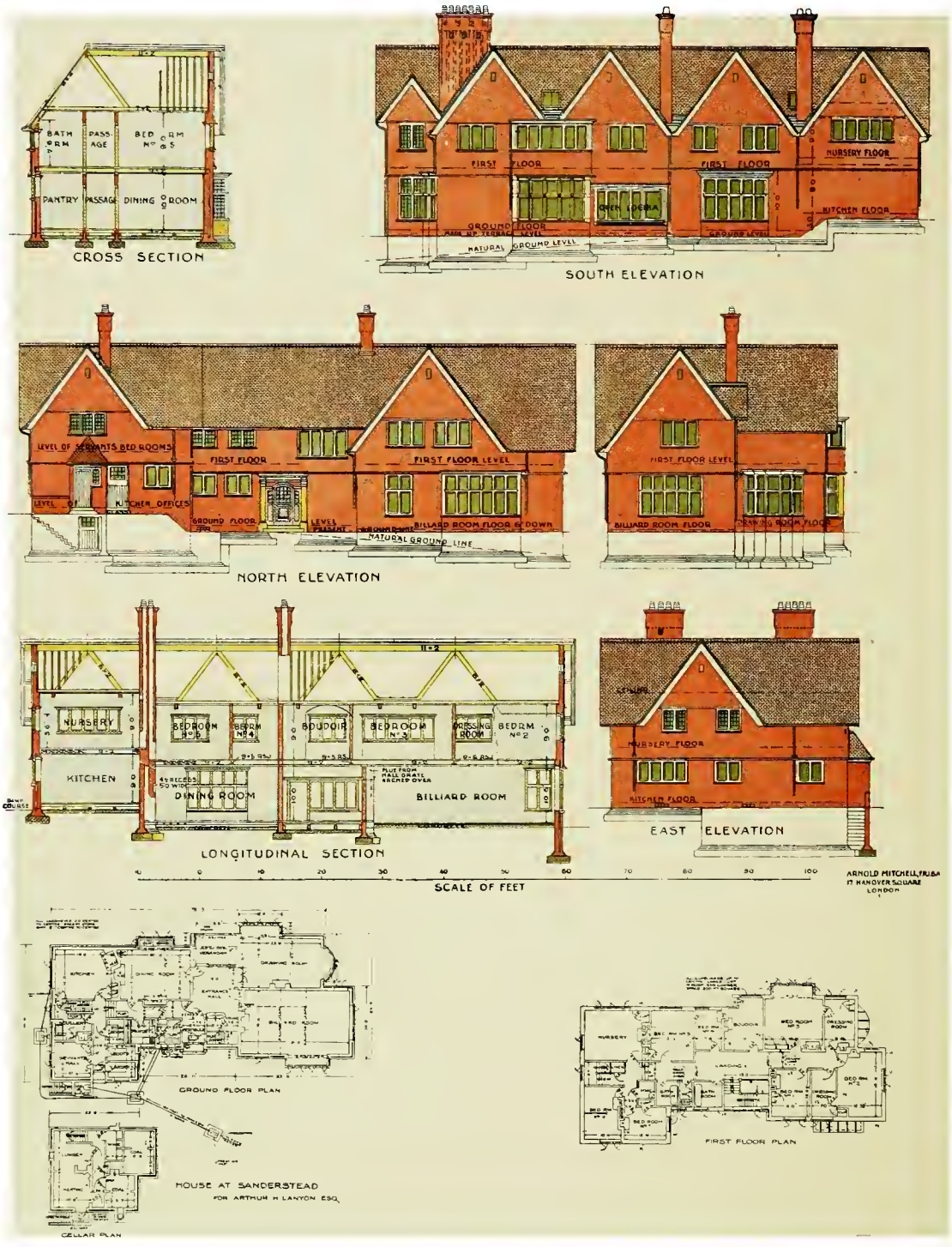


A PAIR OF DERBYSHIRE COTTAGES. THE WALLS ARE OF LOCAL LIMESTONE WITH A $4\frac{1}{2}$ INCH BRICK LINING; THE ROOFS ARE COVERED WITH STONE SLATES IN DIMINISHING SIZES; DRESSED STANTON STONE FOR THE WINDOWS, DOORS, QUOINS, ETC.; THE GLAZING IS IN LEADED SQUARES

Arnold Mitchell, Architect

HOUSE IN BERKSHIRE, BUILT OF BRICK AND TILE, WITH HOLLOW WALLS

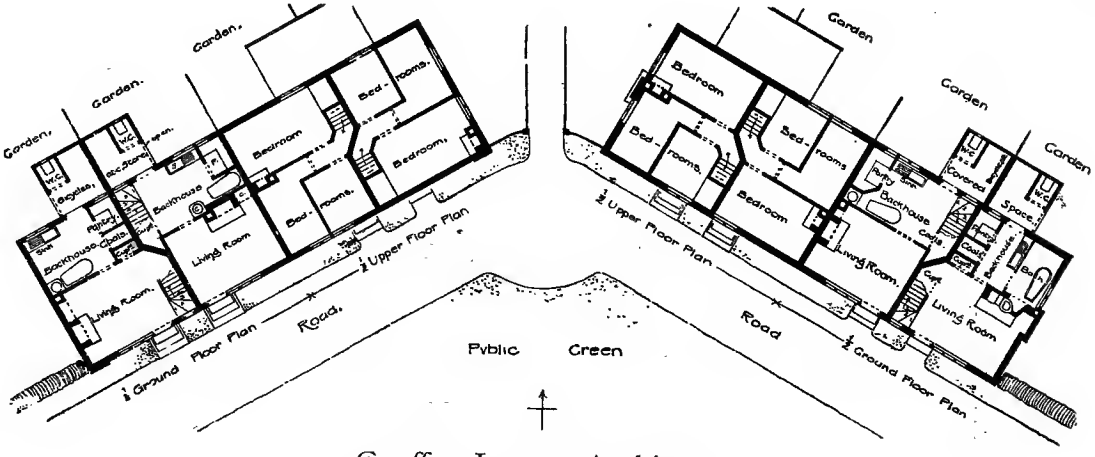
AFTER THE WORKING DRAWINGS FROM WHICH THE HOUSE WAS BUILT



HOUSE AT SANDERSTEAD, SURREY, IN RED BRICK AND RED TILE WALL-HANGING, WITH A ROOFING OF DARK TILES. THERE ARE ELEVEN ROOMS ON THE FIRST FLOOR. THE HOUSE STANDS IN A PRETTY GARDEN, RECENTLY LAID OUT IN A WOOD OF OAKS AND YEWS

Arnold Mitchell, Architect

WORKMEN'S COTTAGES
AT
LETCHWORTH, HERTS
FOR THE
FIRST GARDEN CITY, LTD.
GEOFFRY LUCAS, ARCHITECT.

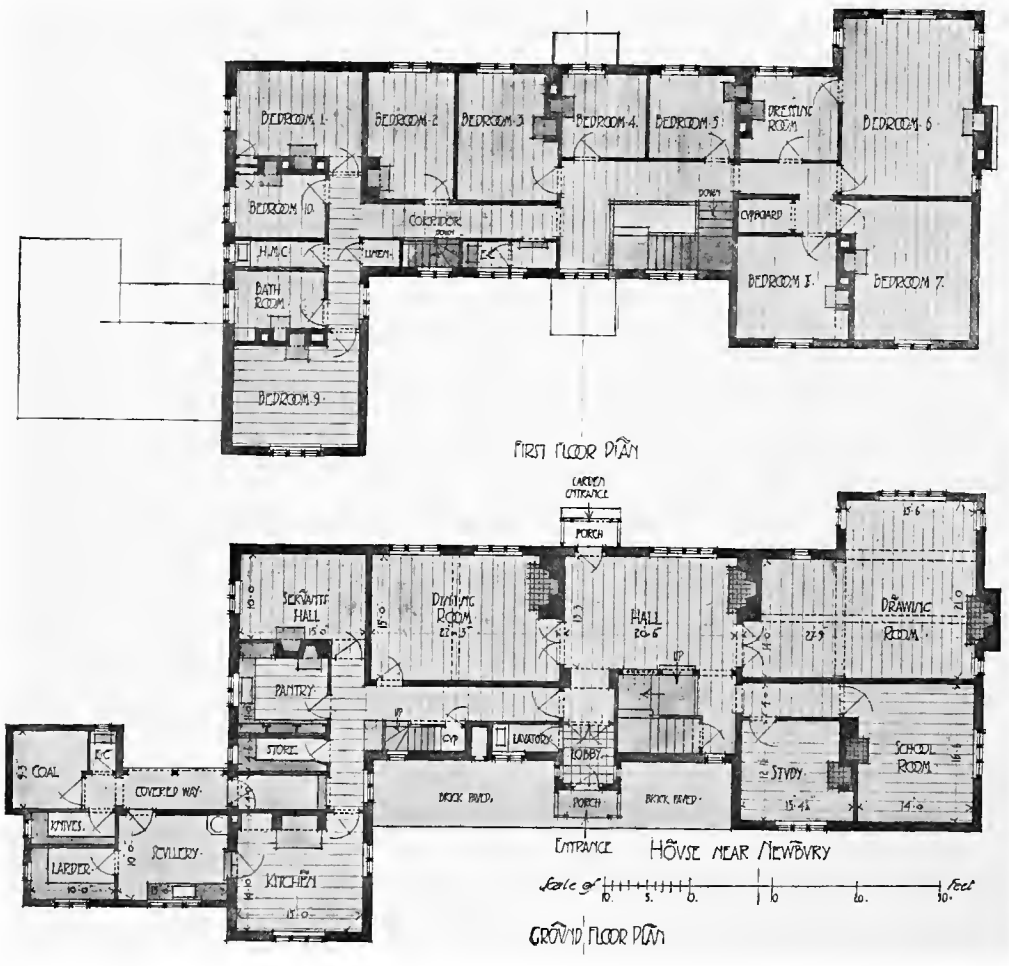


Geoffry Lucas, Architect

The Home from Outside. Elevation and Plans

HOUSE AT BAUGHURST, HAMPSHIRE, BUILT OF BRICK AND ROUGHCAST, THE ROOFING OF DEEP RED HAND-MADE TILES

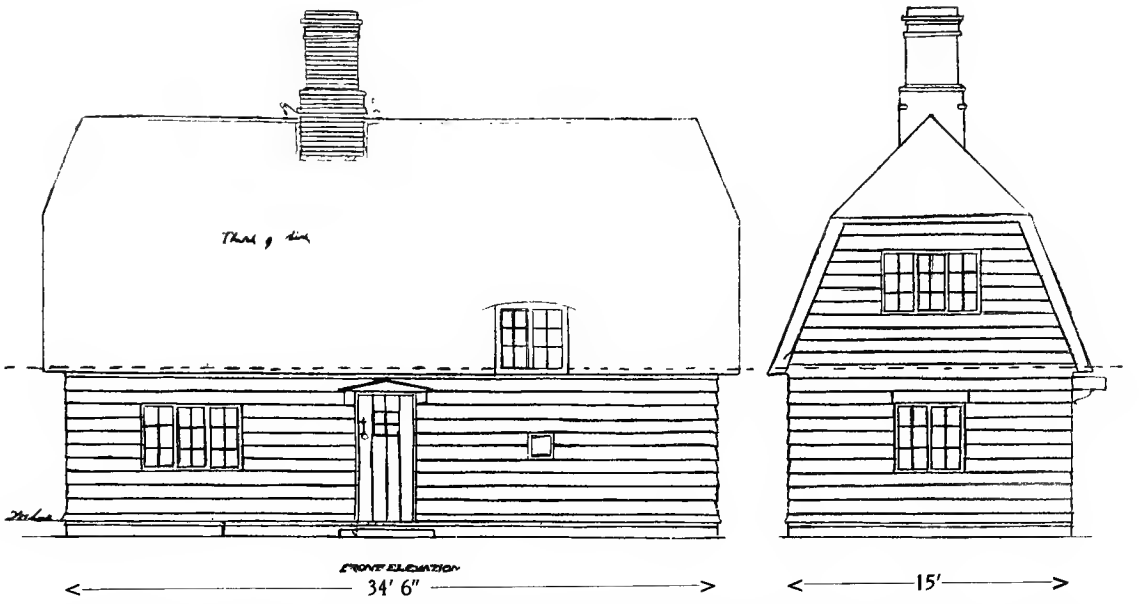
Ernest Newton, Architect

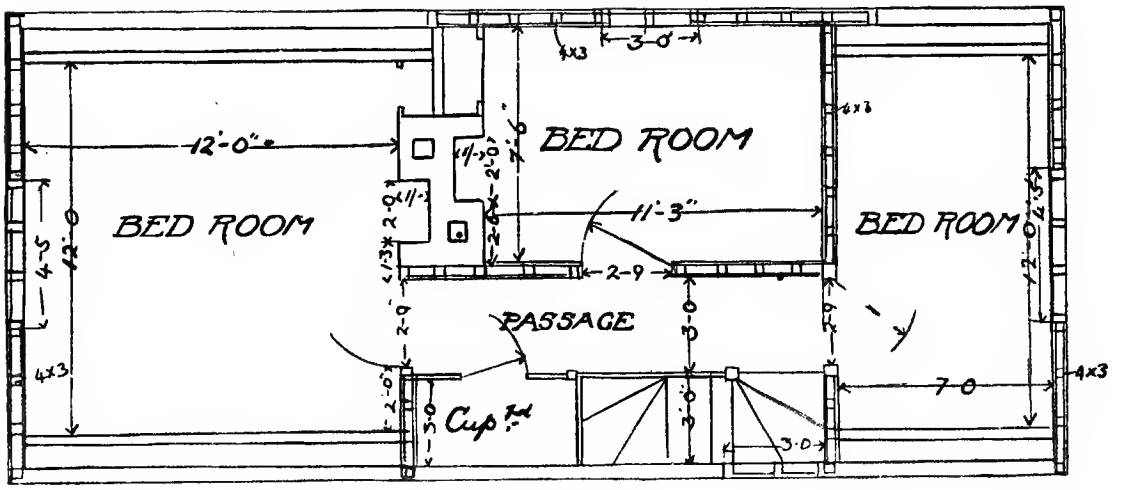


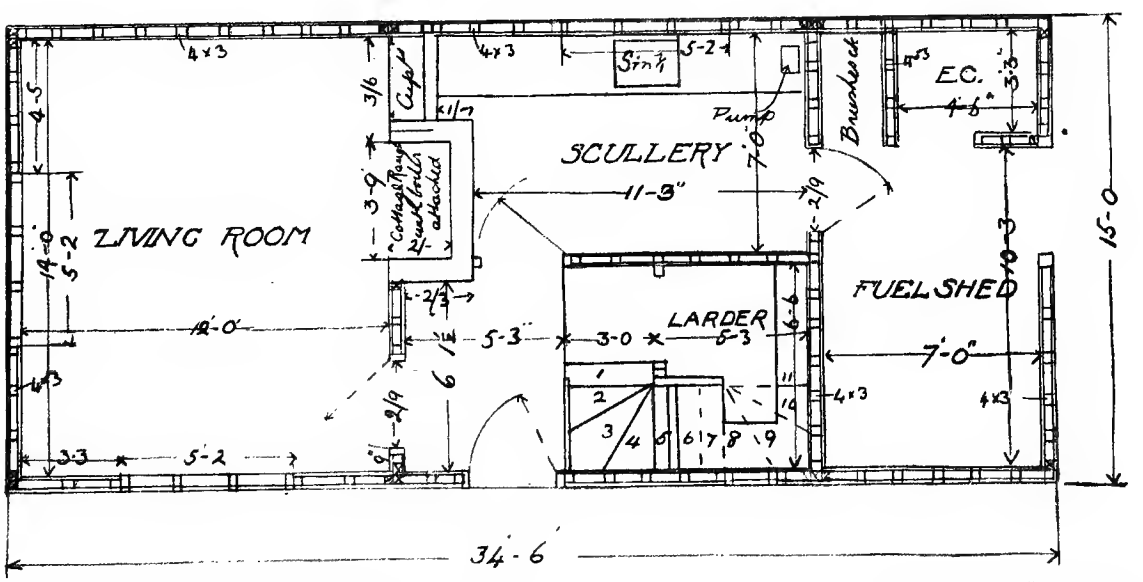
HOUSE AT BAUGHURST, HAMPSHIRE. SEE THE ELEVATION ILLUSTRATED ABOVE. UNPOLISHED OAK IS USED FOR THE STAIRCASE, AND UNPOLISHED TEAK FOR THE FIREPLACES IN THE HALL, THE DINING-ROOM, AND THE DRAWING-ROOM

Ernest Newton, Architect

The Home from Outside. Elevation and Plans



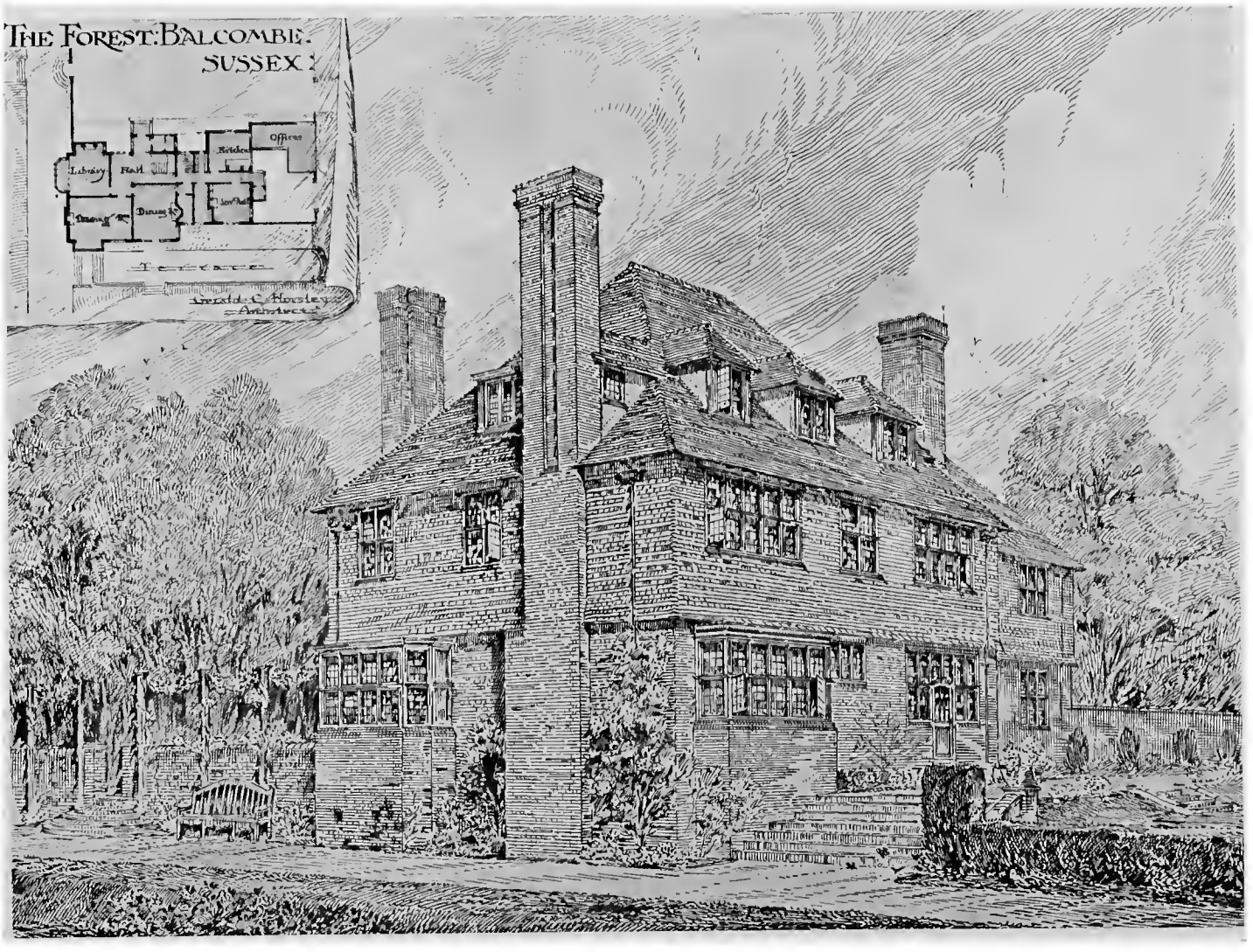




TIMBER-FRAMED THATCHED COTTAGE — PLANS AND ELEVATIONS

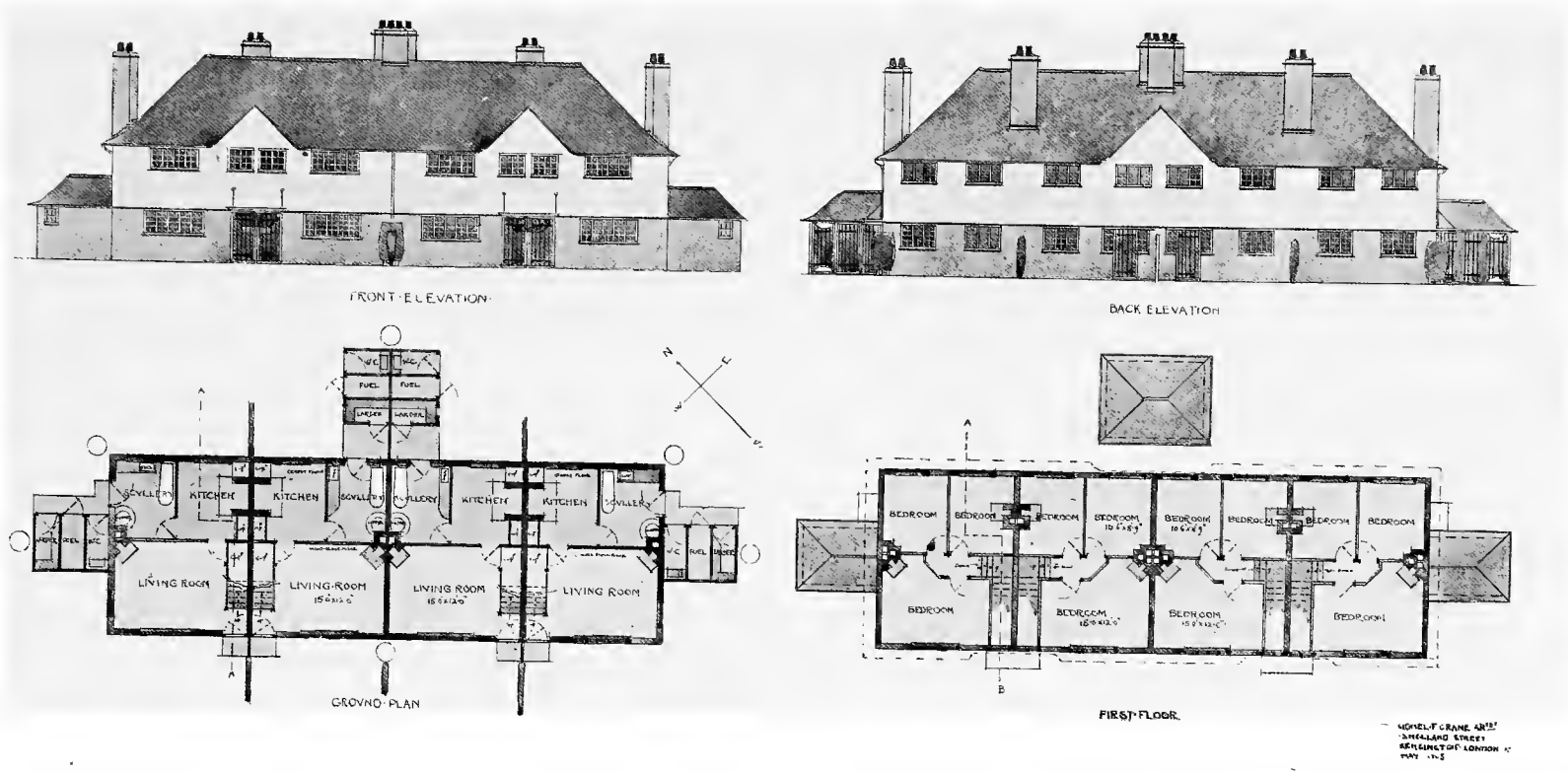
Detmar Blow, Fernand Billerey and Ernest Gimson, Architects

The Home from Outside. Perspective Drawing with a Plan



THE FOREST, BALCOMBE, SUSSEX, BUILT OF LOCAL RED BRICKS, THE ROOFING OF RED TILES. REPRODUCED FROM A PEN-DRAWING

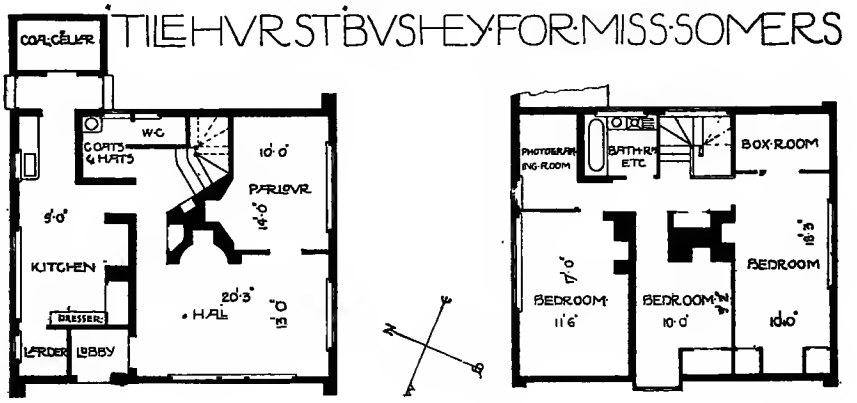
Gerald C. Horsley, Architect



DESIGN FOR A GROUP OF FOUR COTTAGES MATERIALS: RED BRICK AND ROUGHCAST AND RED ROOFING TILES. ESTIMATED COST, £800

Lionel F. Crane, Architect

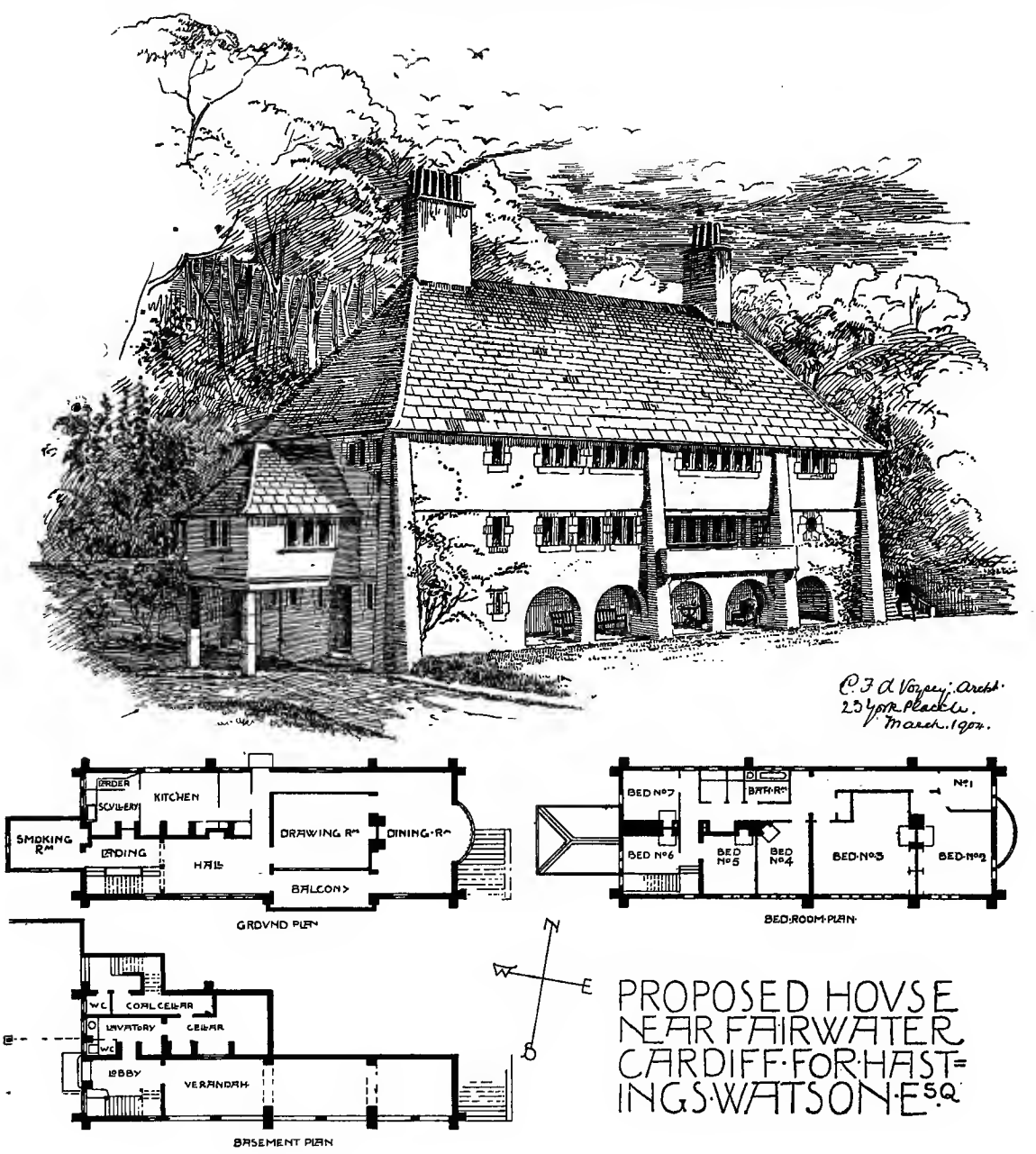
The Home from Outside. Perspective Drawing with Plans



HOUSE IN BUSHEY GRANGE ROAD, BUSHEY, BUILT FOR MISS SOMERS. MATERIALS: ROUGHCAST BRICK WALLS, THE ROOFING OF SAND-FACED RED TILES, WINDOWS OF MONK'S PARK STONE WITH IRON CASEMENTS AND LEADED LIGHTS

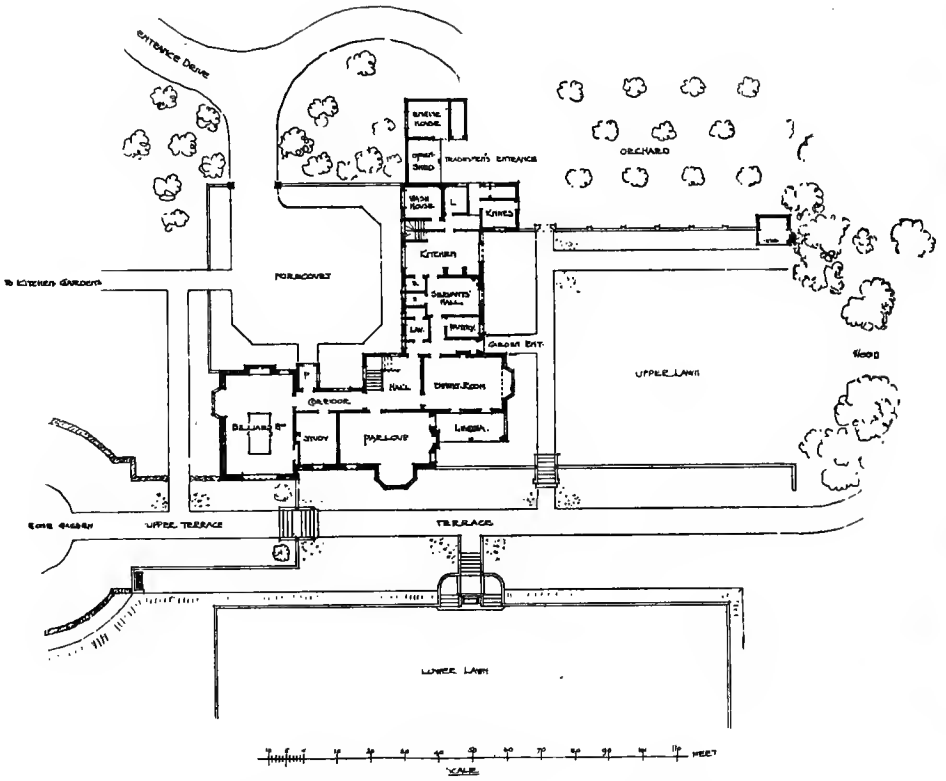
C. F. A. Voysey, Architect

The Home from Outside. Perspective Drawing with Plans

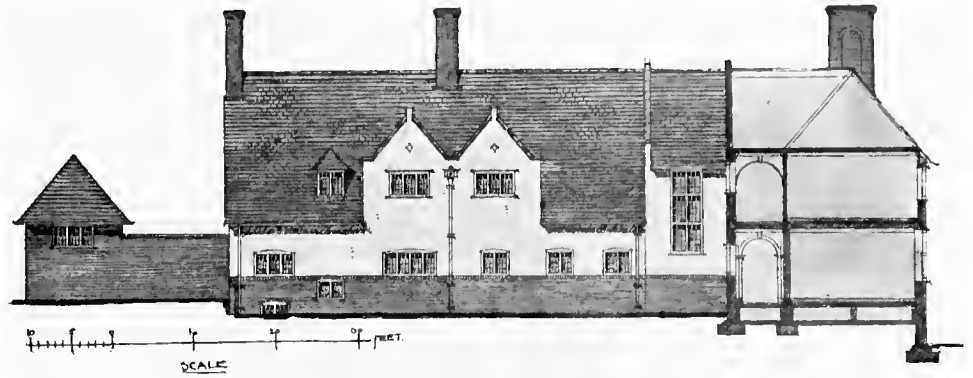


HOUSE NEAR CARDIFF. MATERIALS: ROUGHCAST BRICK WALLS, THE ROOFING OF WESTMORLAND GREEN SLATES, STONE WINDOWS WITH IRON CASEMENTS AND LEAD GLAZING, THE PORCH COLUMNS IN UNPOLISHED BLACK MARBLE

C. F. A. Voysey, Architect



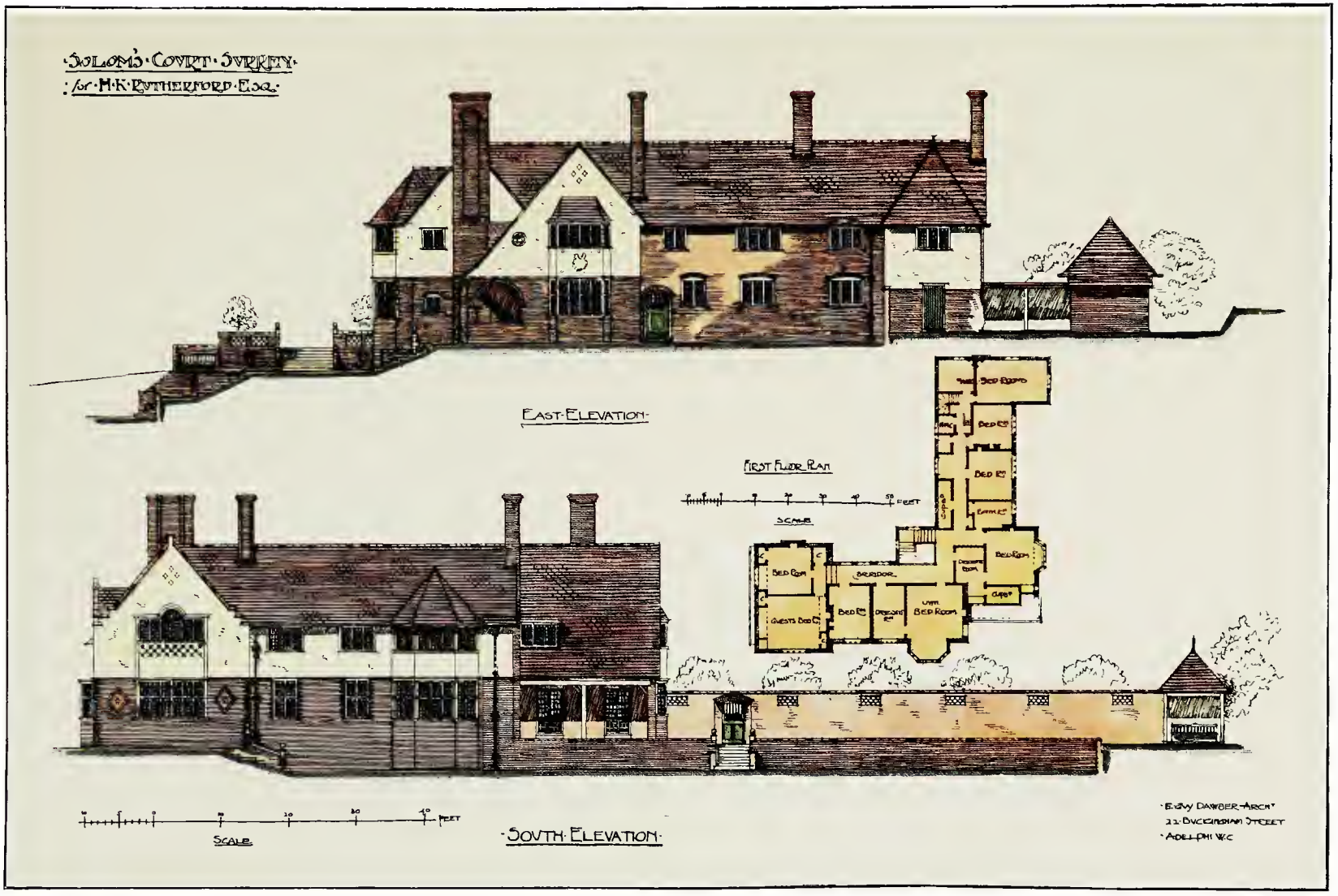
SOLOM'S COURT, SURREY. MATERIALS: WALLS OF RED BRICK AND ROUGHCAST, WITH RED BRICK CHIMNEYS AND THE ROOFING OF RED TILES. THE WINDOWS HAVE LEADED LIGHTS AND IRON CASEMENTS. INSIDE THE HOUSE IS PANELLED WITH OAK, THE PLASTER CEILINGS ARE ENRICHED WITH ORNAMENT, AND OAK IS EMPLOYED FOR THE FLOORING AND THE DOORS



SOLOM'S COURT, SURREY FOR H. K. RUTHERFORD, ESQ. WEST ELEVATION

SOLOM'S COURT, SURREY NORTH ELEVATION

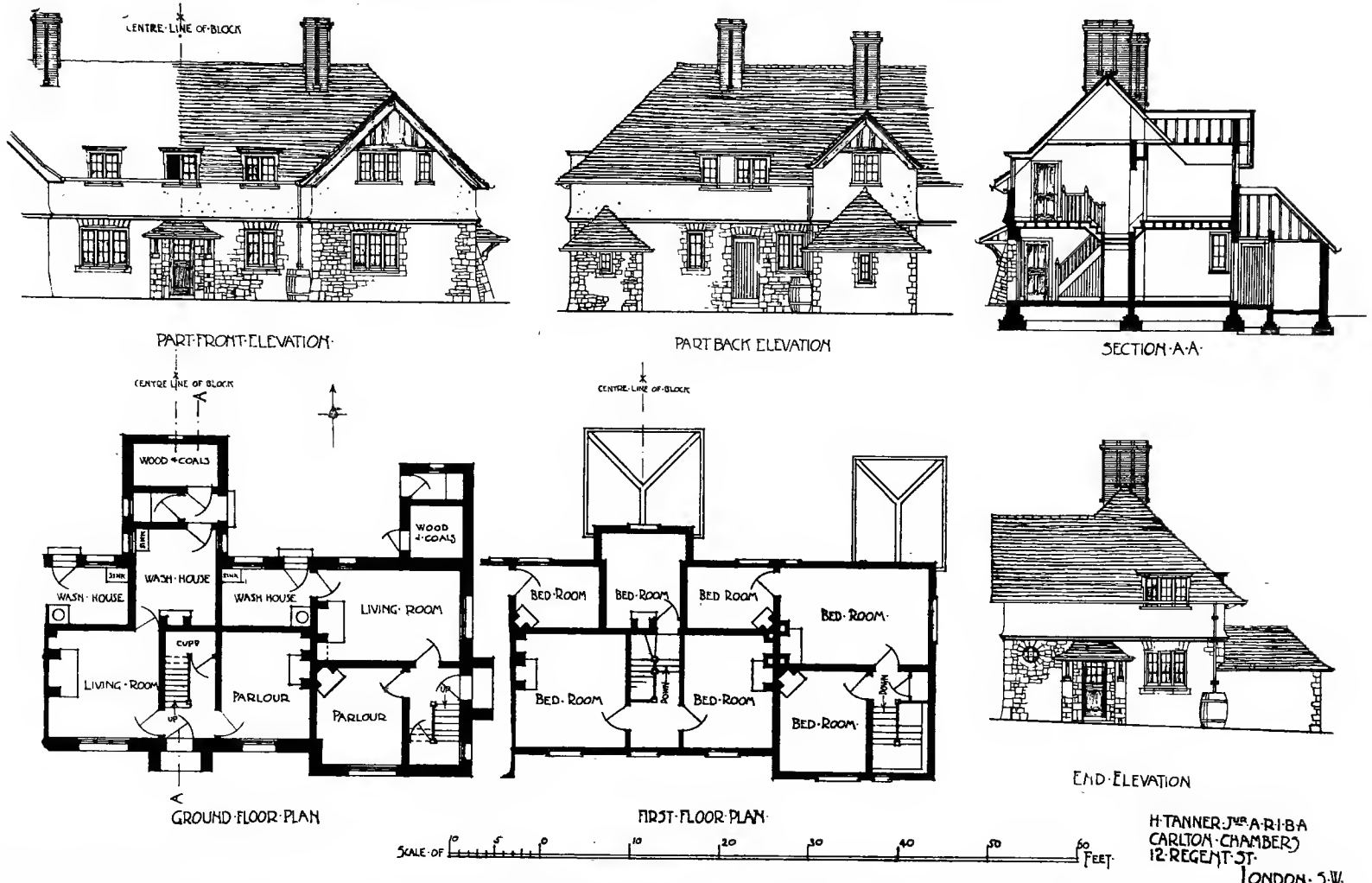
E. Guy Dawber, Architect



SOLOM'S COURT, SURREY. FROM THE ORIGINAL DRAWINGS.

E. Guy Dawber, Architect.

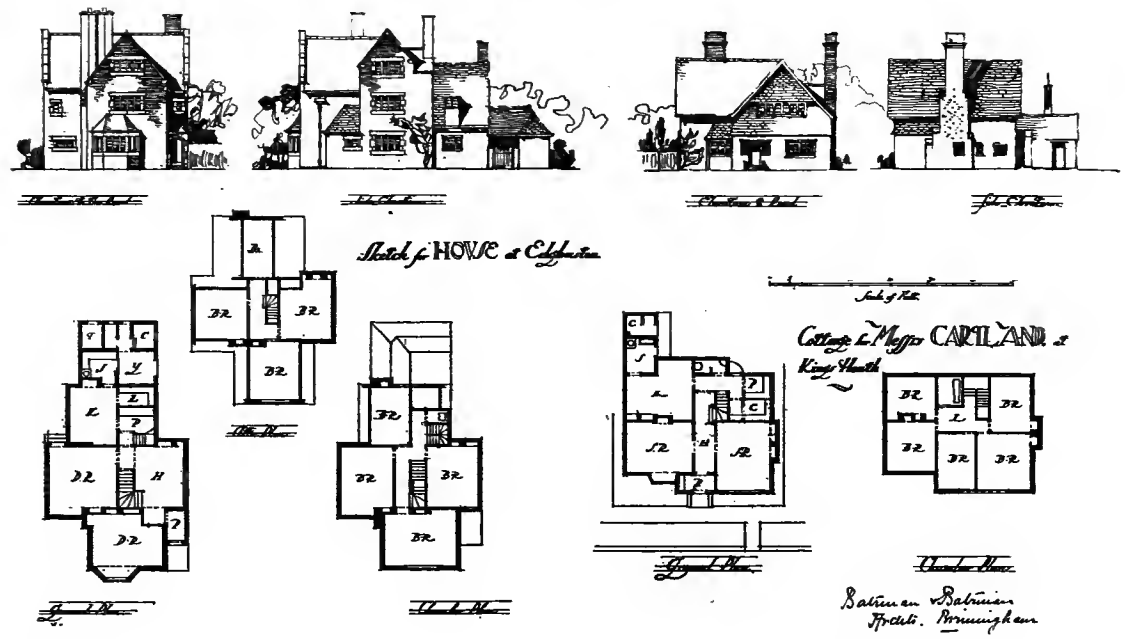
The Home from Outside. Elevation and Plans



THREE COTTAGES AT SHACKLEFORD, SURREY. MATERIALS: LOCAL STONE UP TO THE LEVEL OF THE FIRST FLOOR; BRICK AND ROUGHCAST ABOVE; RED BRICK CHIMNEYS, THE ROOFS OF LOCAL TILES. THE EXTERNAL WOODWORK OF OAK, THE INTERNAL OF DEAL

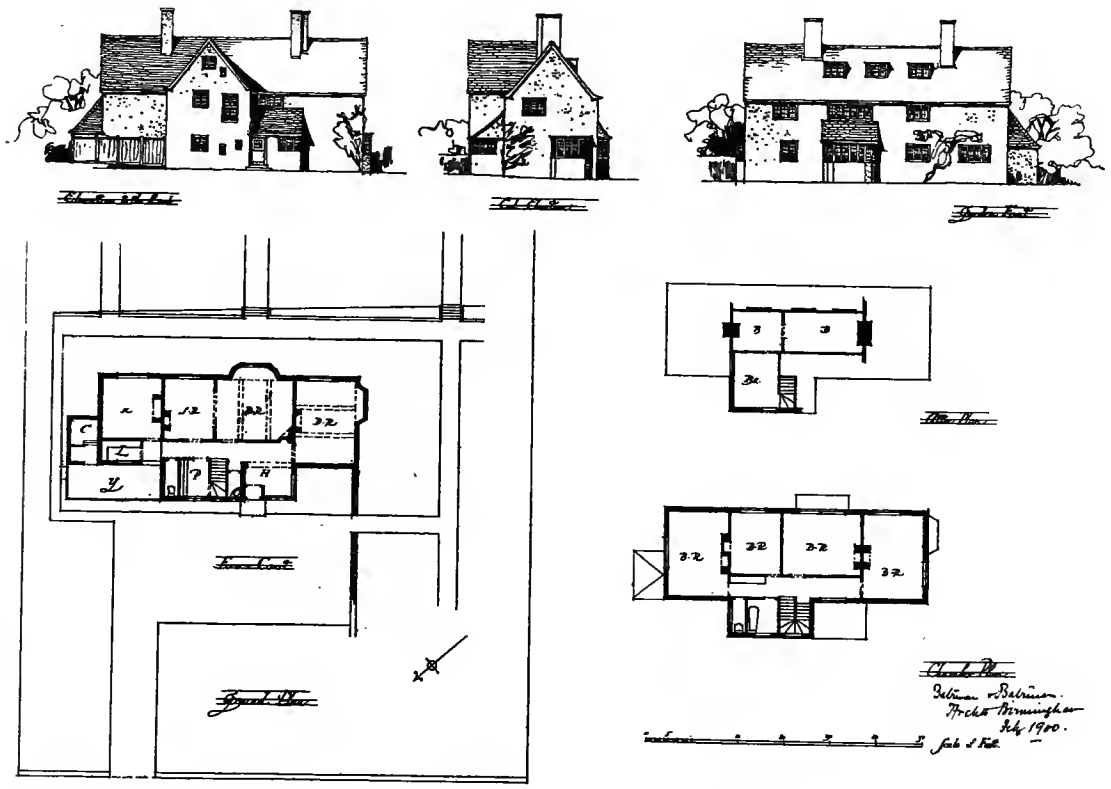
H. Tanner, jun., Architect

The Home from Outside. Elevations and Plans



SKETCHES FOR A HOUSE AT EDGBASTON AND A COTTAGE AT KING'S HEATH, WITH FIVE PLANS

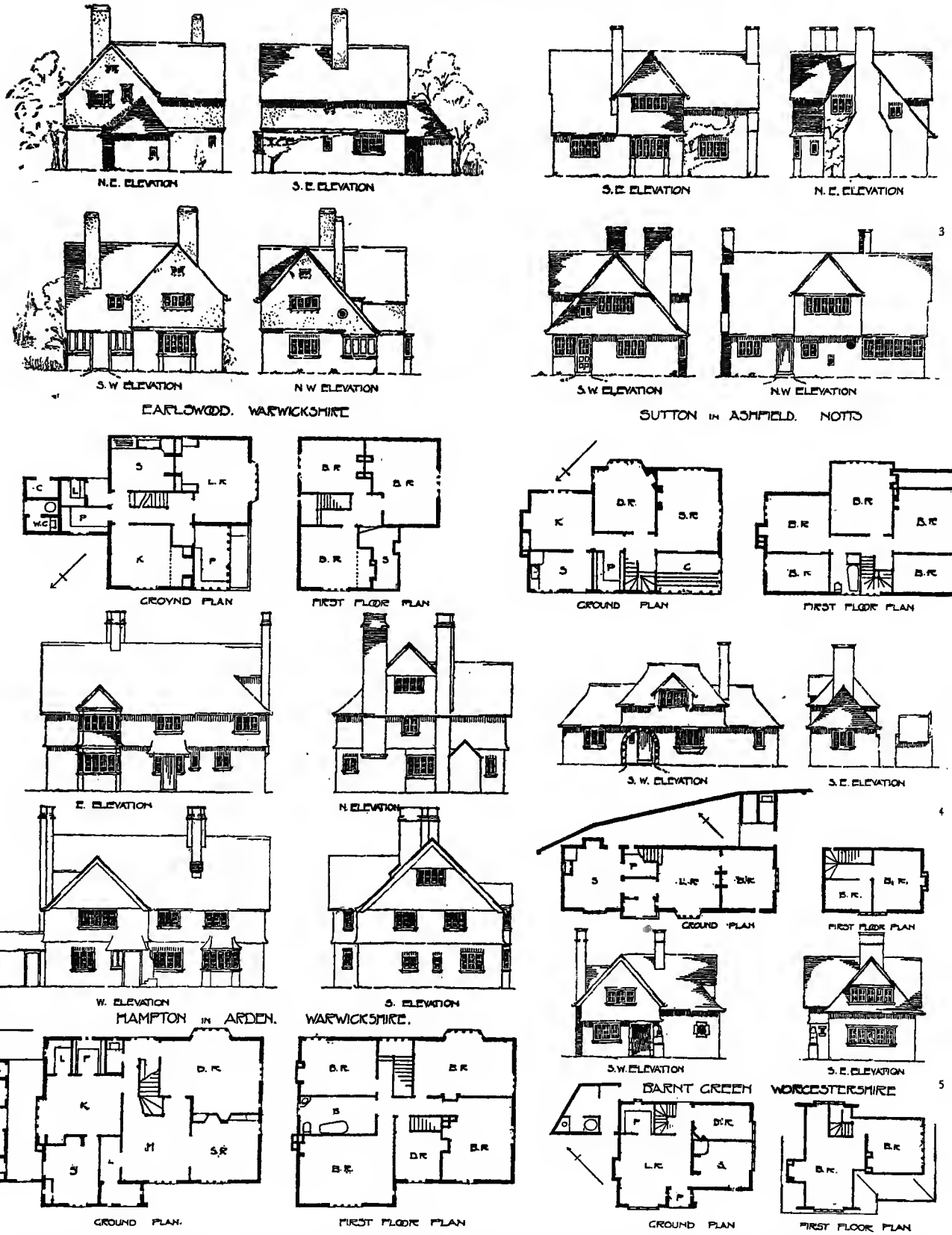
Bateman and Bateman, Architects



SMALL HOUSE AT BARNT GREEN, WORCESTERSHIRE, WITH WALLS COVERED WITH ROUGHCAST AND A ROOFING OF OLD TILES. THE COAL-PLACE WAS TURNED INTO A SCULLERY BEFORE THE HOUSE WAS FINISHED

Bateman and Bateman, Architects

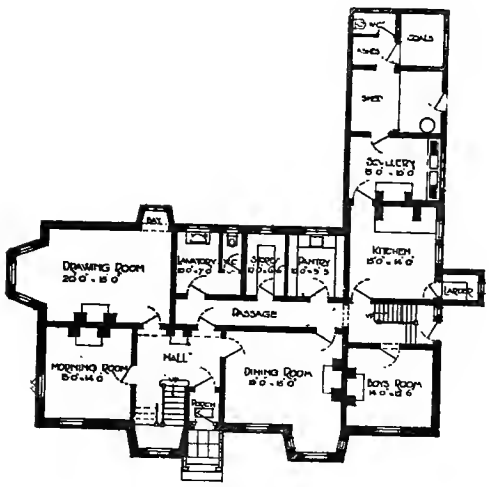
The Home from Outside. Elevations and Plans



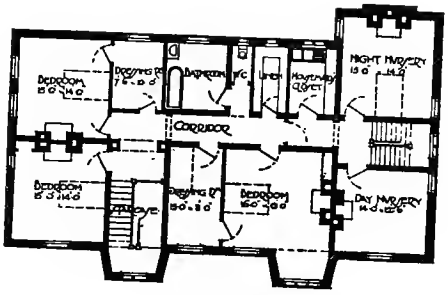
COTTAGES AND HOUSES IN WARWICKSHIRE, WORCESTERSHIRE AND NOTTINGHAMSHIRE. 1. LITTLE HOUSE AT EARLSWOOD, WARWICKSHIRE, BUILT FOR A SMALL FARMER WORKING HIS OWN LAND. 2. HOUSE AT HAMPTON IN ARDEN, WITH THE UPPER PART OF THE EXTERNAL WALLS HUNG WITH GREEN SLATES. 3. THE CONSERVATORY PORCH IS A POINT OF INTEREST IN THIS HOUSE, AFFORDING SPACE FOR A SMALL BEDROOM ABOVE IT. 4 & 5. THESE ARE LODGES, BUILT OF STONE, WITH A HANGING OF GREEN SLATE TO THE UPPER PART OF THE WALLS

Bateman and Bateman, Architects

The Home from Outside. Perspective Elevation and Two Plans

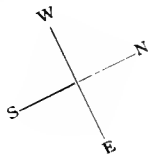


Ground Floor Plan



First Floor Plan

PLANS OF A HOUSE AT FULFORD

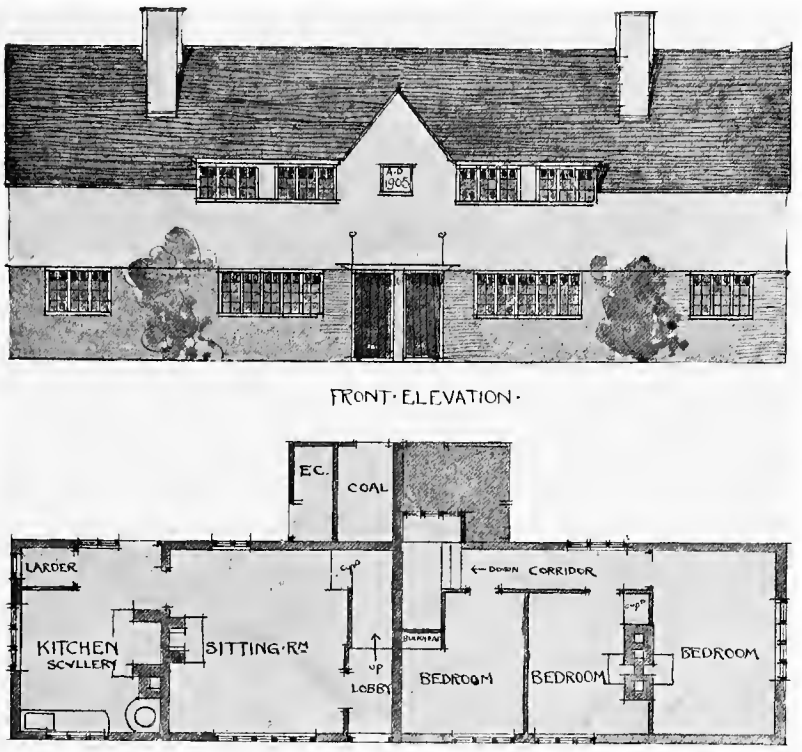


SEE THE ILLUSTRATION BELOW

HOUSE AT FULFORD, YORKSHIRE, FOR C. A. COOPER, ESQ. THE WALLS ARE BUILT OF RED HAND-MADE LOCAL BRICKS, THE ROOFS ARE COVERED WITH THICK SILVER-GREY WESTMORLAND SLATES, THE PORCH IS OF OAK, THE REST OF THE WOODWORK IS PAINTED WHITE

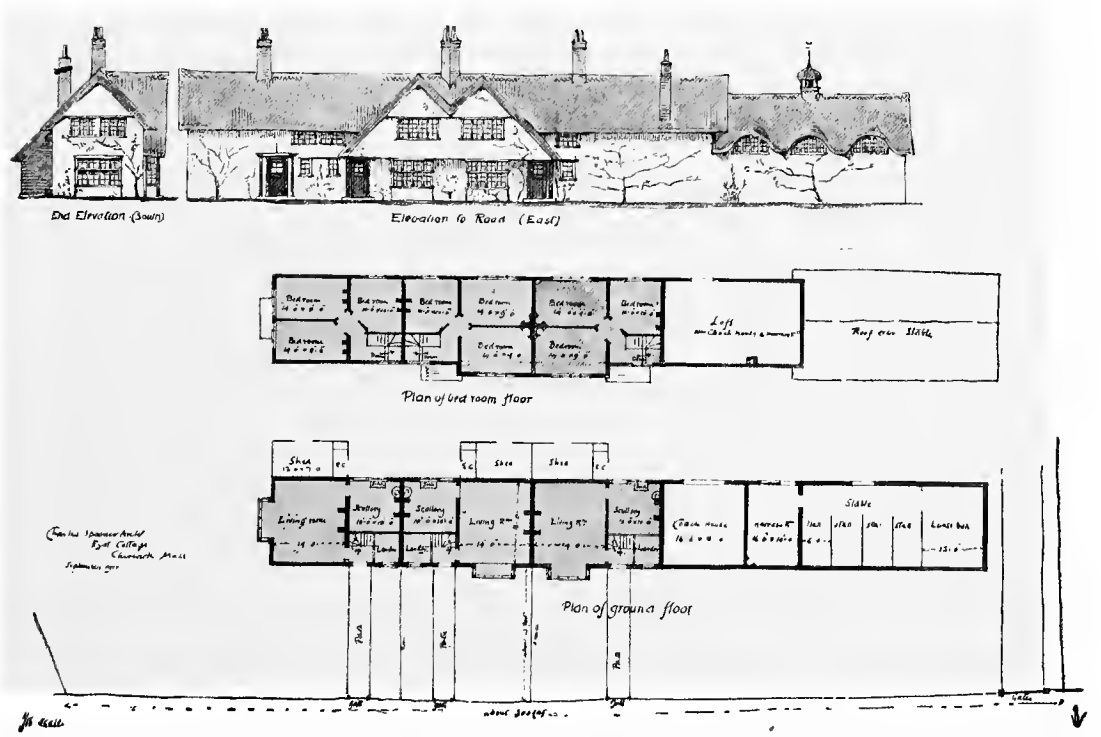
Walter H. Brierley, Architect

The Home from Outside. Elevations and Plans



DESIGN FOR PROPOSED COTTAGES AT EASTON IN ESSEX, FOR THE EARL AND COUNTESS OF WARWICK

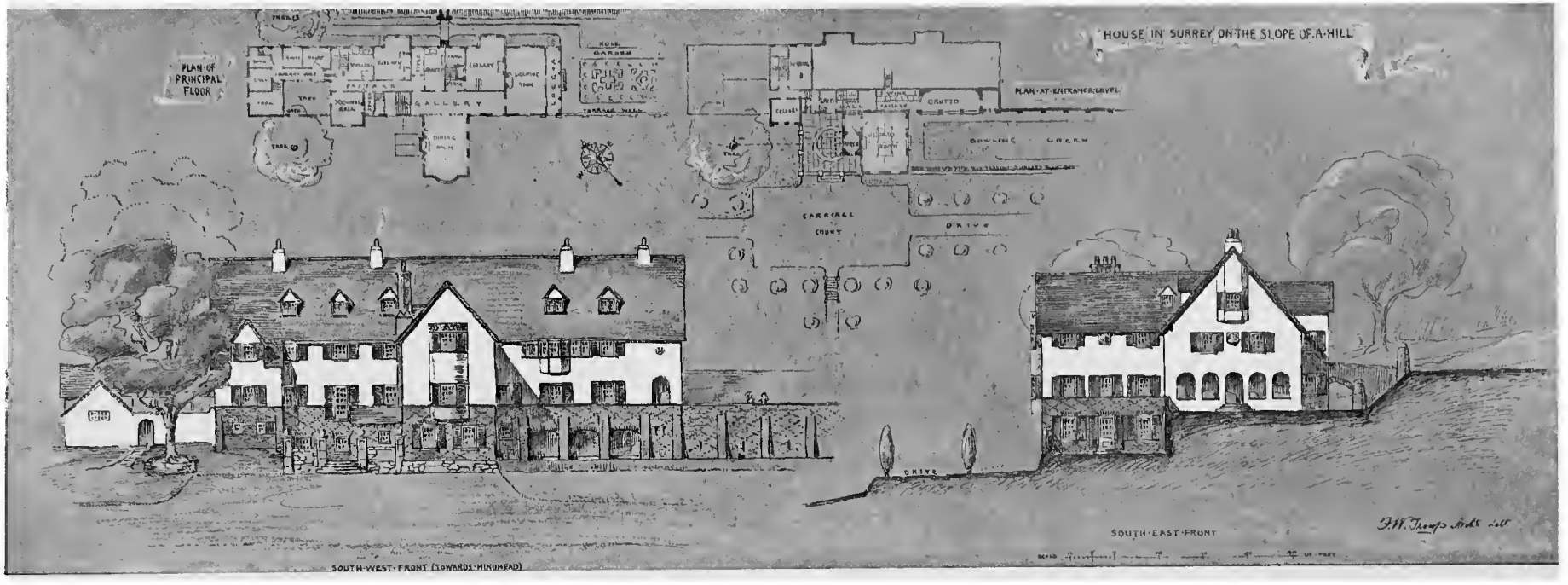
Lionel F. Crane, Architect



SKETCH FOR SOME STABLES AND COTTAGES AT BURY IN SUSSEX, WITH PLANS. WALLS OF LOCAL BRICK ROUGHCASTED, PROJECTING GABLES OF TIMBER COVERED WITH ROUGHCAST, CHIMNEYS OF RED BRICK, THE ROOFS THATCHED WITH REEDS

Charles Spooner, Architect

The Home from Outside. Perspective Drawing with Plans



HOUSE IN SURREY ON THE SLOPE OF A HILL, BUILT IN 1900. MATERIALS: THE LOWER PORTION OF THE WALLS OF LOCAL WOOD-BURNED BRICKS, WHICH HAVE GREY FLARE-ENDS; THE UPPER PORTION IS ROUGHCAST THE FORECOURT AND THE BASE ARE OF STONE. THE ROOFS ARE COVERED WITH GREY STONE SLATES, THE SASH WINDOWS HAVE SUN BLINDS

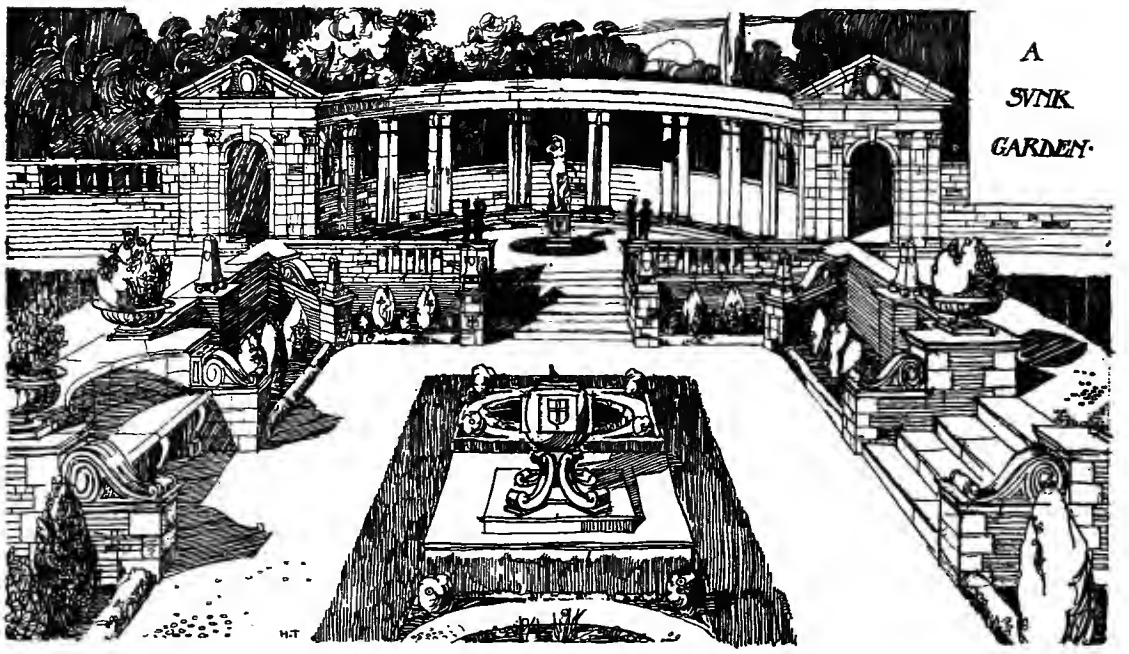
F. W. Troup, Architect

The Home from Outside. Bird's-Eye View

HOUSE NEAR GODALMING. MATERIALS: THE WALLS ARE BUILT OF MANY-TINTED LOCAL BRICKS, THE ROOF IS COVERED WITH PETERSFIELD TILES, THE WINDOWS AND ALL THE EXTERNAL WOODWORK ARE IN OAK

E. J. May, Architect

The Home from Outside. Pen Drawings

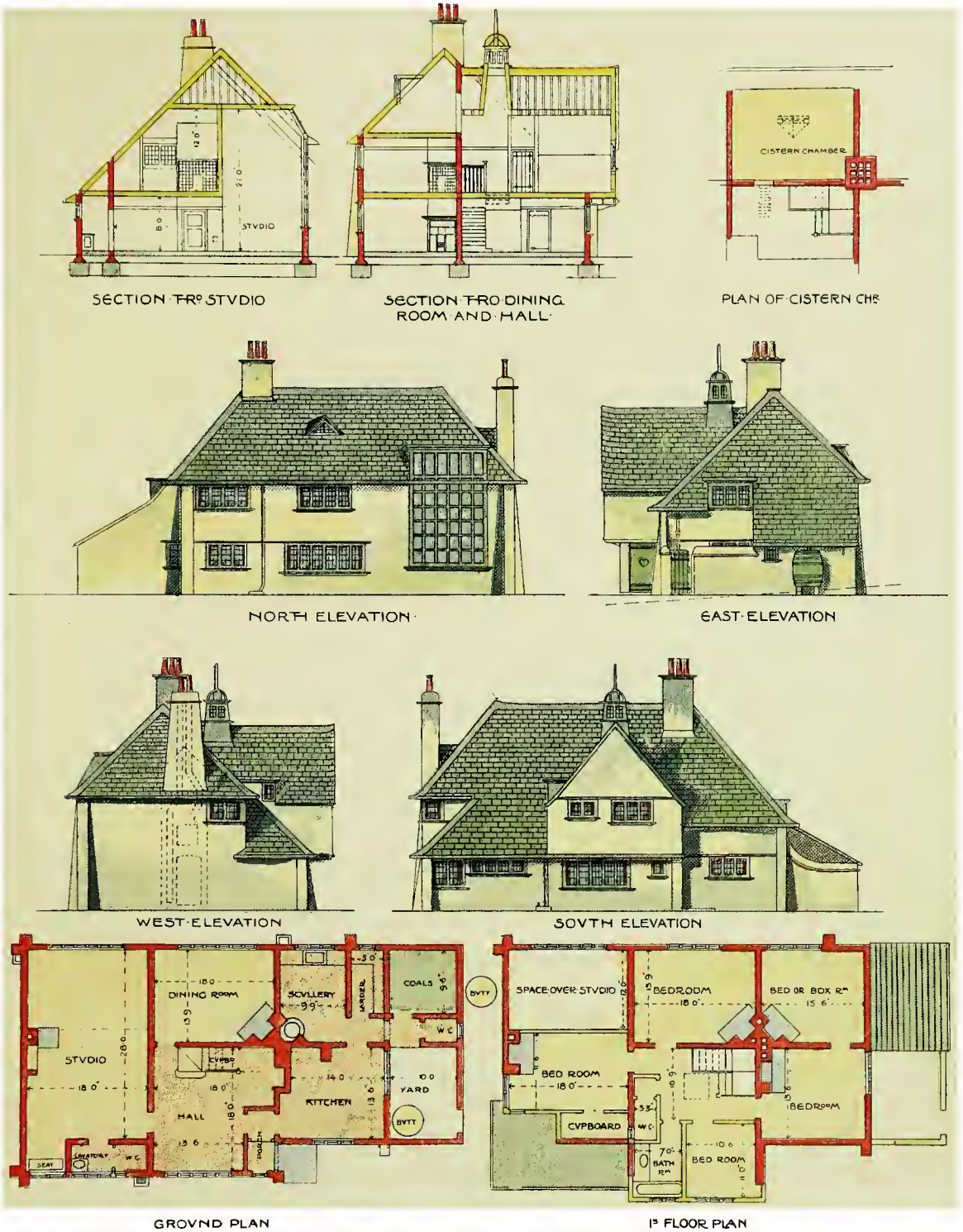


A SUNK GARDEN: DESIGNED FOR AN EXISTING HOUSE IN SHROPSHIRE. MATERIALS: WALLS OF BRICK AND STONE, THE PAVEMENT OF STONE FLAGS, THE STATUES IN LEAD

H. Tanner, jun., Architect

HOUSE AT BECKENHAM FOR E. J. PRESTON, ESQ. MATERIALS: RED BRICKS, RED SUSSEX TILES FOR THE ROOF, OAK HALF-TIMBERING AND LARGE BOARDS, THE WINDOW FRAMES AND THE INTERNAL JOINERY OF SOFT WOOD PAINTED

H Tanner jun. Architect



PROPOSED HOUSE AND STUDIO AT STUDLAND BAY, DORSET, FOR ALFRED SUTRO, ESQ. TO BE BUILT OF ROUGHCASTED BRICK, A ROOFING OF GREEN SLATES WITH RIDGES AND HIPS OF LEAD

C. F. A Voysey, Architect

NORTH ELEVATION

GROUND FLOOR PLAN

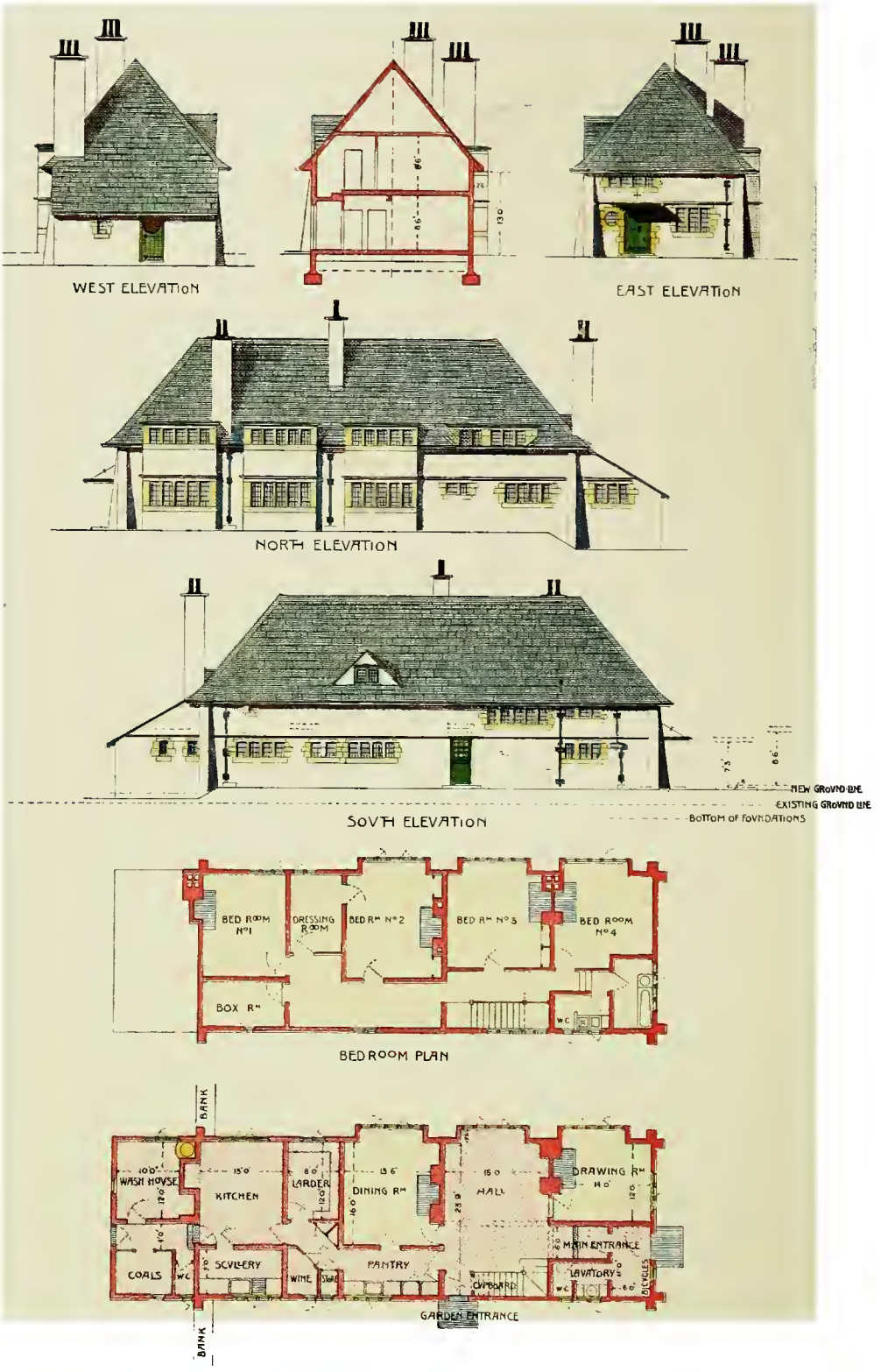
HOUSE IN DEVONSHIRE, BUILT OF STONE AND GREY TILES

Edwin L. Lu

FIRST FLOOR PLAN

SOUTH ELEVATION

FROM DRAWINGS IN WATER-COLOUR BY HAROLD STEVENS



PROPOSED HOUSE FOR LIMPSFIELD, SURREY, TO BE BUILT OF BRICK AND CEMENT ROUGHCAST, WITH A ROOFING OF GREEN SLATES, WINDOW DRESSINGS OF BATH STONE, IRON CASEMENTS, TARRED CHIMNEY-POTS

C. F. A. Voysey, Architect

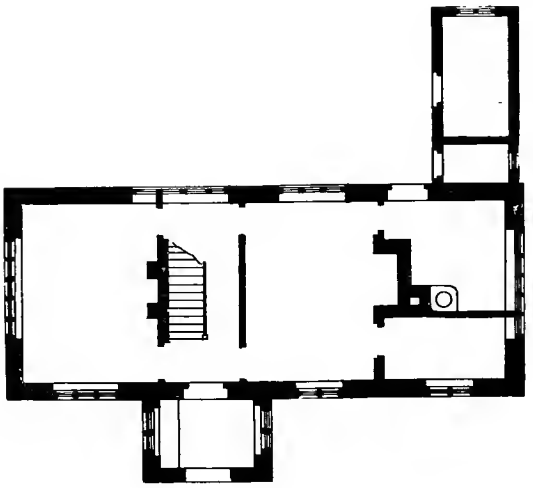
The Home from Outside. Photographic Views

WALWOOD, SURREY, THE GARDEN FRONT TAKEN FROM BELOW THE TERRACE, AND SHOWING THE ENTRANCE LODGE IN THE DISTANCE

WALWOOD, SURREY, THE FORECOURT ENTRANCE. THE HOUSE IS OF BRICK AND ROUGHCAST WITH A BASE OF RED BRICK AND A ROOFING OF RED TILES. THE WINDOWS ARE LEADED CASEMENTS

E. Guy Dawber, Architect

The Home from Outside. Photographic View and a Plan

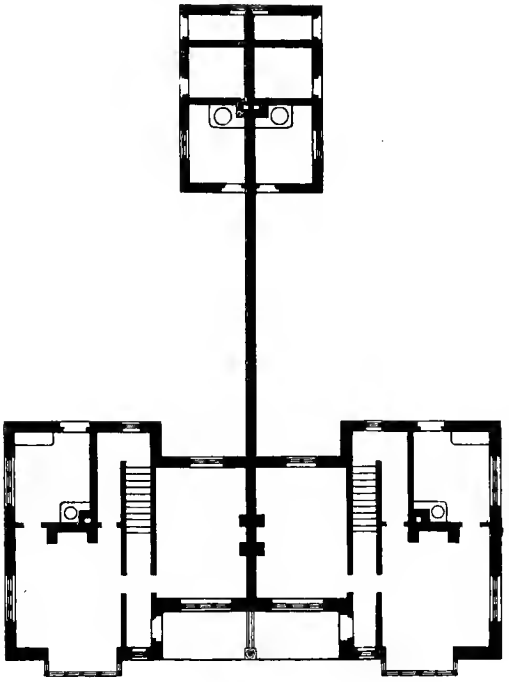


⅛″ SCALE
GROUND PLAN OF A COTTAGE AT APETHORPE, A PHOTOGRAPHIC VIEW OF WHICH IS GIVEN IN THE ILLUSTRATION BELOW

COTTAGE AT APETHORPE, BUILT FOR L. BRASSEY, ESQ. MATERIALS: EDITH-WESTON STONE AND COLLY-WESTON SLATES

Reginald Blomfield, A.R.A., Architect

The Home from Outside. Photographic View and a Plan



⅛″ SCALE
GROUND PLAN OF A PAIR OF COTTAGES AT APETHORPE
SEE THE ILLUSTRATION BELOW

DOUBLE COTTAGE AT APETHORPE, BUILT FOR L. BRASSEY, ESQ. MATERIALS: EDITH-WESTON STONE AND COLLY-WESTON SLATES

Reginald Blomfield, A.R.A., Architect

The Home from Outside. Photographic Views

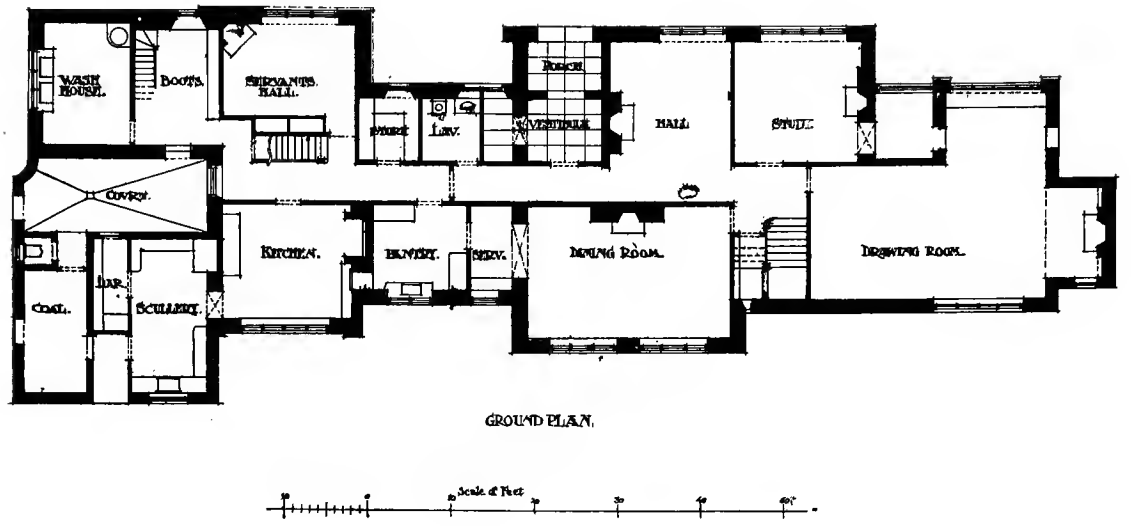
THE CROFT, WINCHFIELD, HANTS. VIEW TOWARDS THE LAWN, FACING S.W. MATERIALS: RED HAND-MADE BRICKS AND ROOFING TILES, ELM BOARDING TO GABLES, ROUGH WHITE PLASTER FOR THE BAYS, ETC.

R. W. Schultz, Architect

THE CROFT, WINCHFIELD, HANTS. VIEW FROM THE ROSE GARDEN TOWARDS THE ENTRANCE INTO THE HOUSE

R. W. Schultz, Architect

The Home from Outside. Photographic View and a Plan



GROUND PLAN.

GROUND PLAN, OF A HOUSE AT NORTH BERWICK SEE THE ILLUSTRATION GIVEN BELOW

R. S. Lorimer, A.R.S.A., Architect

HOUSE AT NORTH BERWICK, VIEW FROM THE S.W. BUILT OF LOCAL WHINSTONE HARLED AND WHITEWASHED, WITH SLATE-HANGING AND ROOFS OF SCOTCH SLATES

R. S. Lorimer, A.R.S.A., Architect

The Home from Outside. Photographic Views

HIGH WALLS, GULLANE, N.B., BUILT OF STONE AND ROOFED WITH GREY PANTILES. REPRODUCED BY PERMISSION OF THE HON. ALFRED LYTTELTON

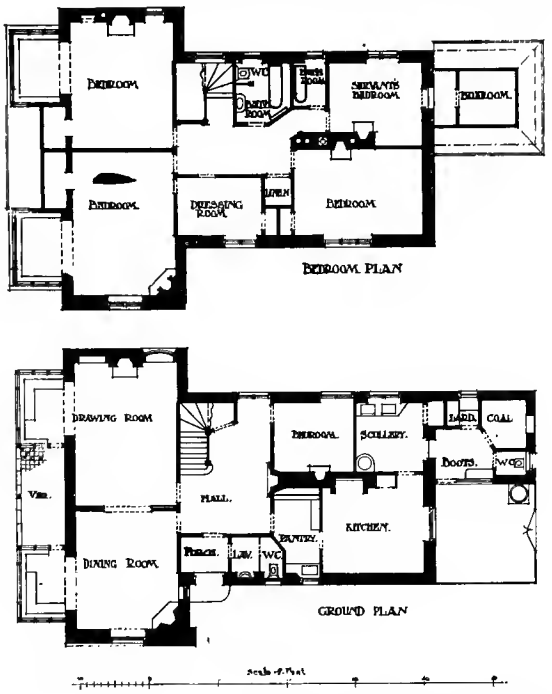
Edwin L. Lutyens, Architect

HIGH WALLS, GULLANE, N.B.

THE ENTRANCE FRONT

Edwin L. Lutyens, Architect

The Home from Outside. Plans and a Photographic View



PLANS OF A WEEK-END COTTAGE ON GULLANE LINKS, N.B.
SEE THE ILLUSTRATION GIVEN BELOW

R. S. Lorimer, A.R.S.A., Architect

WEEK-END COTTAGE ON GULLANE LINKS, N.B. SEE THE PLANS ILLUSTRATED ABOVE

R. S. Lorimer, A.R.S.A., Architect

The Home from Outside. Photographic Views

HOUSE (IN COURSE OF CONSTRUCTION) AT GRAFFHAM, NEAR PETWORTH, SUSSEX. BUILT OF BROWN LOCAL STOCKS IN PART ROUGHCASTED, AND ROOFED WITH PLAIN RED TILES

Halsey Ricardo, Architect

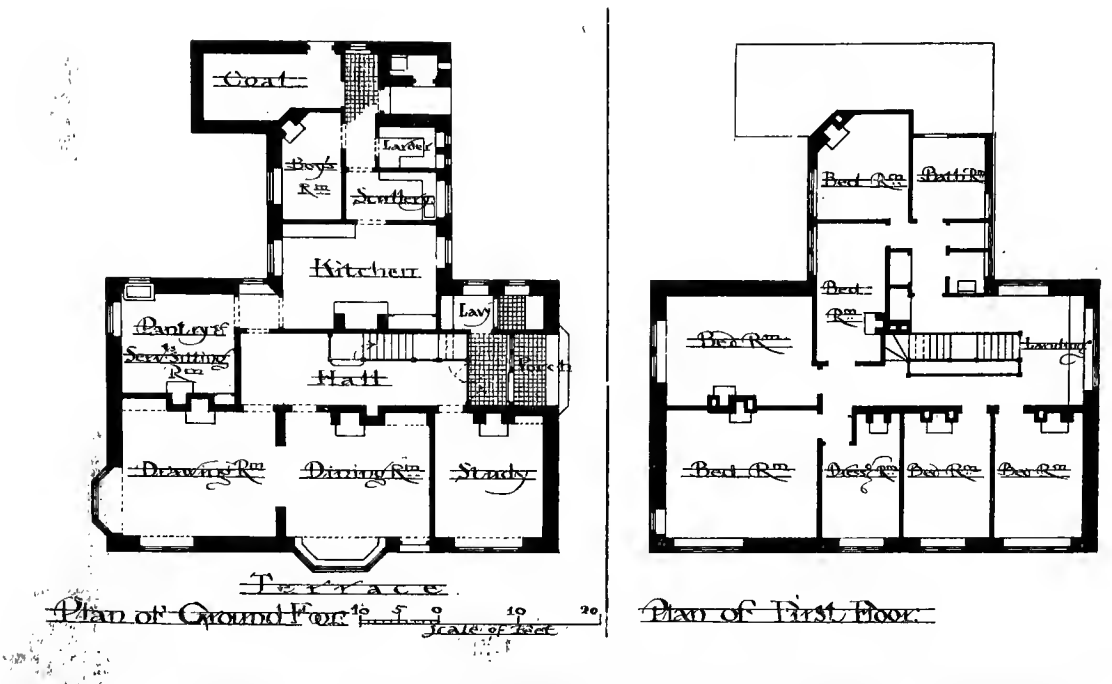
THE EYOT HOUSE, SONNING-ON-THAMES. BUILT OF LOCAL STOCKS ROUGHCASTED, AND ROOFED WITH PLAIN RED TILES

Halsey Ricardo, Architect

THE HOME FROM OUTSIDE. Perspective Drawing

THE MATERIALS ARE LOCAL RED BRICKS, LOCAL RED TILES FOR THE TILE-HANGING, THE ROOFING OF GREY ASHFORD TILES, AND THE WINDOW FRAMES OF OAK

The Home from Outside. Plans and a Photographic View



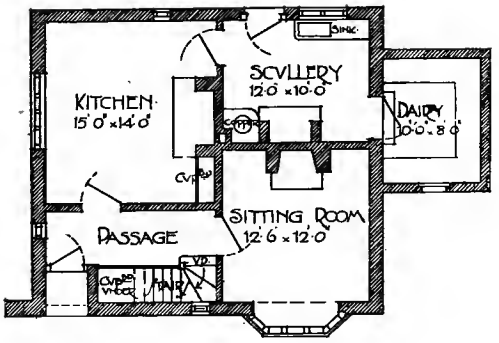
COOMBE FIELD, GODALMING, SURREY. THE EXTERIOR WALLS ARE OF STONE WITH AN INTERIOR LINING OF BRICK. SEE THE ILLUSTRATION BELOW

Gerald C. Horsley, Architect

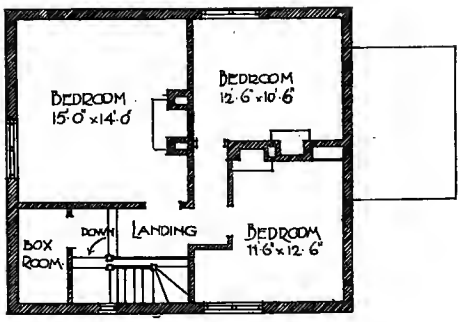
COOMBE FIELD, GODALMING, SURREY. BUILT OF THE LOCAL BARGATE STONE AND OF RED ROOFING TILES SEE THE PLANS ILLUSTRATED ABOVE ON THIS PAGE

Gerald C. Horsley, Architect

The Home from Outside. Photographic View with Plans

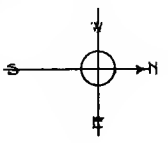


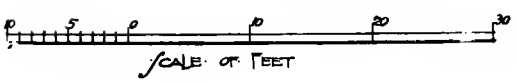
Ground Plan



First Floor Plan

◊ Cottage at Rufforth ◊
near York
Arr Mr Middlewood





THE MATERIALS ARE LOCAL HAND-MADE BRICKS FOR THE WALLS, A PANTILED ROOF, WITH RED SANDSTOCK STRINGS AND ARCHES. THE COST, INCLUDING THE WELL AND THE BOUNDARY FENCE, WAS £450

Walter H. Brierley, Architect

The Home from Outside. Photographic Views

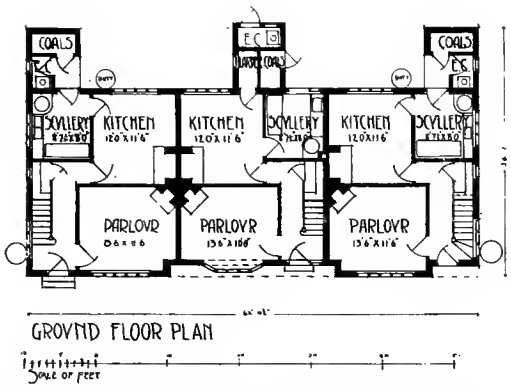
HOUSE AT NORTHWOOD, WITH RED WALLS, A DARK TILED ROOF, AND A WHITE FRIEZE OF MODELLED PLASTER

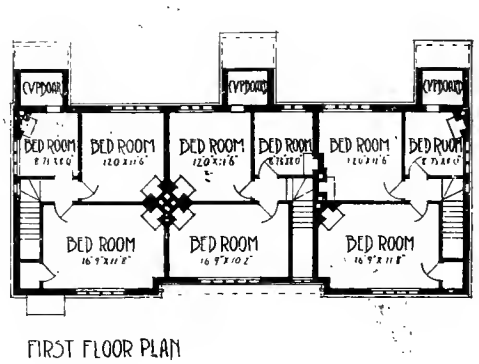
Arnold Mitchell, Architect

SMALL HOUSE AT HARROW, WITH WHITE WALLS AND RED CHIMNEYS, AND A ROOFING OF GREEN SLATES

Arnold Mitchell, Architect

The Home from Outside. Plans and a Photographic View





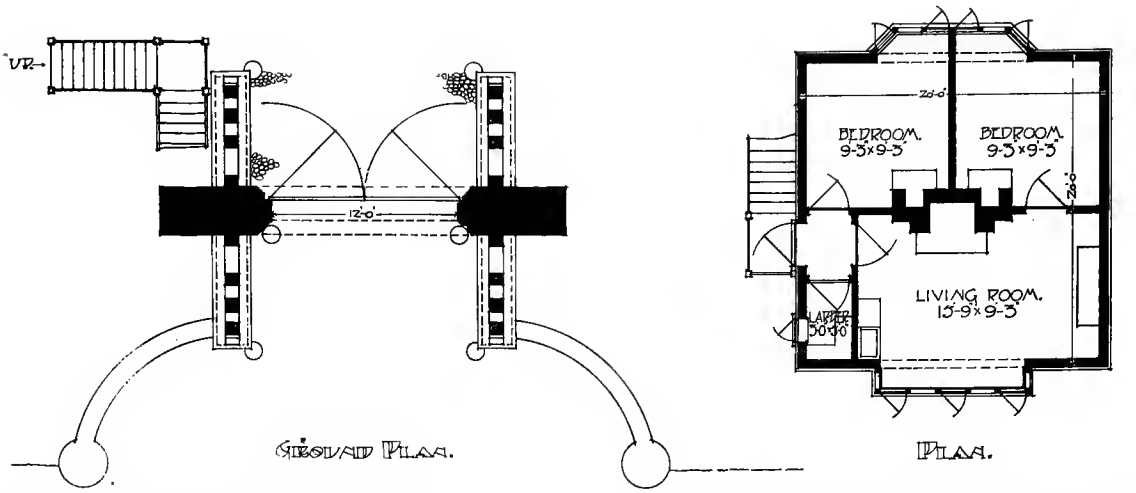
COTTAGES AT CHAPELWOOD MANOR. GROUND FLOOR PLAN AND FIRST FLOOR PLAN. SEE THE ILLUSTRATION BELOW

A. N. Prentice, Architect

COTTAGES AT CHAPELWOOD MANOR. MATERIALS: RED BRICK, ODESSA OAK AND PLASTER, RED HANGING AND ROOF TILES

A. N. Prentice, Architect

The Home from Outside. Plans and a Photographic View



PLANS OF THE GATE LODGE, CHAPELWOOD MANOR. SEE THE PHOTOGRAPHIC ILLUSTRATION GIVEN BELOW

A. N. Prentice, Architect

GATE LODGE, CHAPELWOOD MANOR. MATERIALS: ODESSA OAK FRAMING WITH PLASTER BETWEEN, RED BRICK AND ROUGHCAST, AND RED LOCAL TILES

A. N. Prentice, Architect

The Home from Outside. Photographic Views

HOUSE AT HEYSHOTT, NEAR MIDHURST, COMPLETE COST £1337, INCLUDING WOOD AND COAL SHED, GARDEN TOOL HOUSE, ETC. MATERIALS: ROUGHCAST, RED BRICKS, TILE HANGING, TILE ROOF

Horace Field, Architect

HOUSE AT STANMORE IN RED BRICKS, WITH A ROOFING OF SAND-FACED TILES. VIEW FROM THE GARDEN

Horace Field, Architect

MONKTON, SINGLETON, SUSSEX, THE SEAT OF W. JAMES, ESQ., BUILT OF BRICK AND TILE. VIEW OF THE FORECOURT

Edwin L. Lutyens, Architect

MONKTON, SINGLETON, SUSSEX VIEW OF THE SOUTH FRONT

Edwin L. Lutyens, Architect

MONKTON, SINGLETON, SUSSEX — VIEW OF THE ENTRANCE

OAK TIMBER-FRAMED COTTAGE AT GODALMING, SURREY

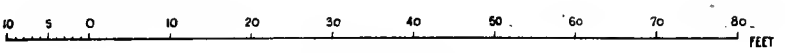
Edwin L. Lutyens, Architect

HOUSE IN PEEBLESHIRE N.B

⅛TH SCALE ELEVATIONS

FRONT ELEVATION (North East)

BACK ELEVATION (South West)



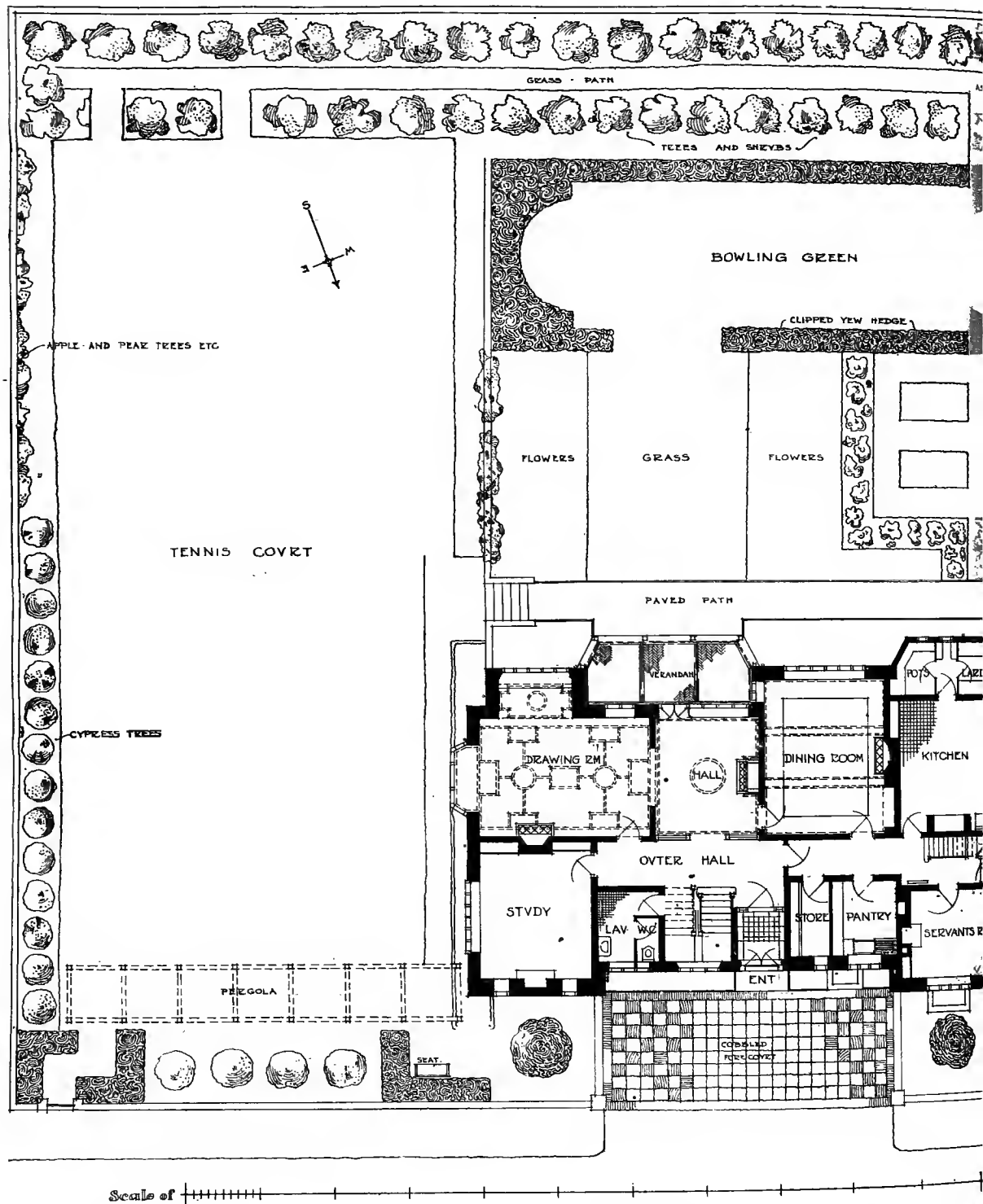
SCALE OF FEET

R.S LORIMER A R S A
49 QUEEN ST EDINB

HOUSE IN PEEBLESHIRE, N.B.

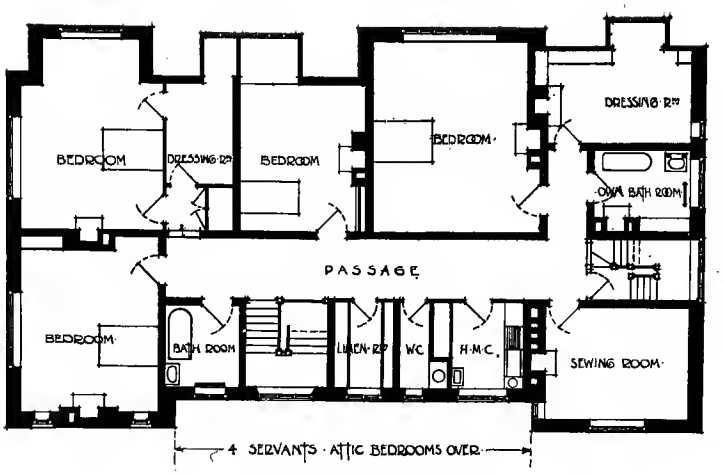
FROM THE ORIGINAL DESIGNS.

R. S. Lorimer, A.R.S.A., Architect.



THE ARCHITECT'S OWN HOUSE, YORK, REPRODUCED FROM ORIGINAL ELEVATIONS AND PLANS. BUILT OF 2 IN. THICK HAND-
WALK AND THE LOGGIA FLOOR ARE PAVED WITH DUTCH BRICKS, AND THE FOREC

W. H. Brie



·FIRST·FLOOR·PLAN·

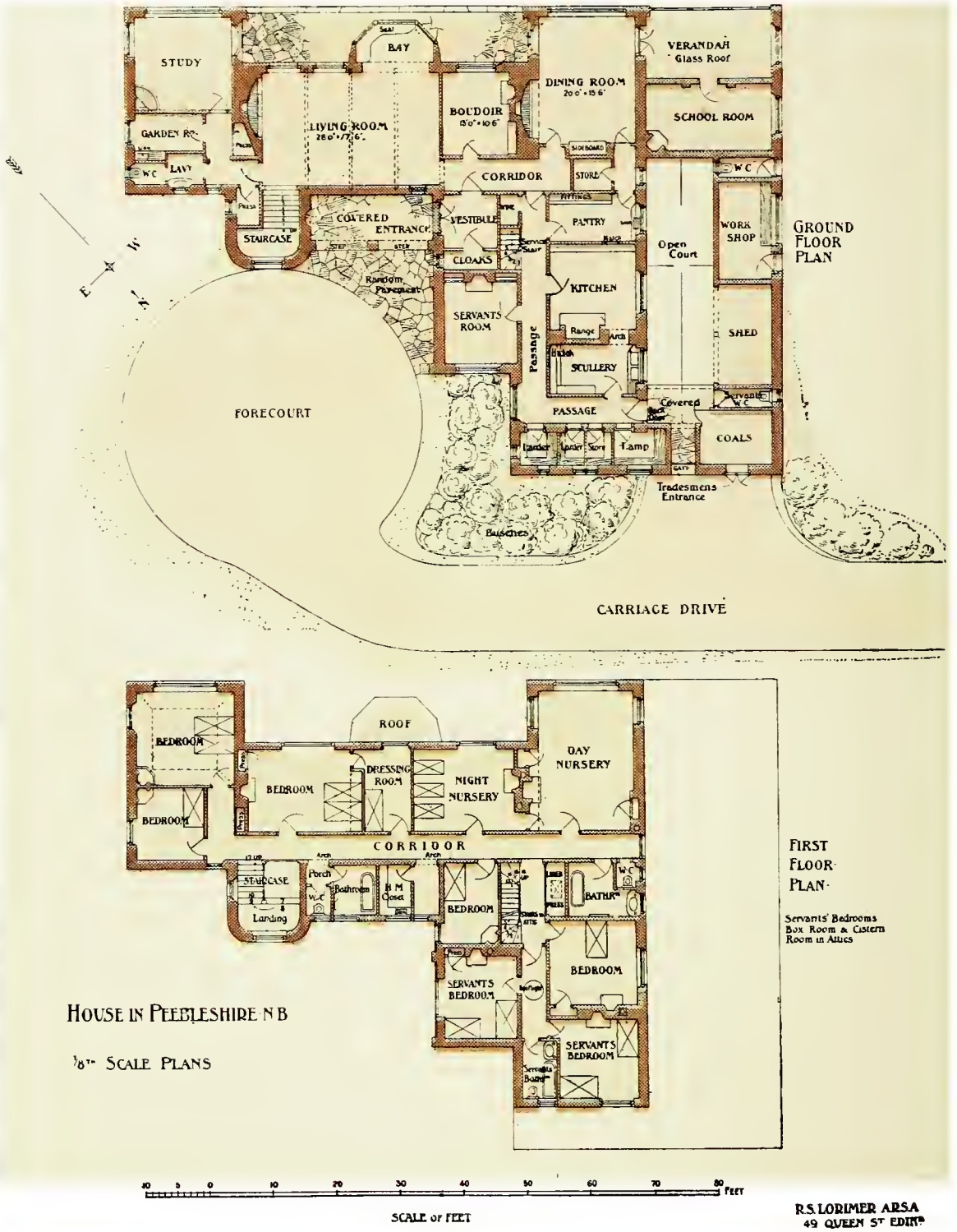
Elevation · to · Road

Garden Elevation·

Smerley·F3A·

RICKS FOR THE WALLS, ROOFED WITH RED HAND-MADE TILES, THE OUTSIDE WOODWORK OF ENGLISH OAK. THE TERRACE LAID WITH A CHEQUER OF BLACK AND WHITE PEBBLES FROM THE SEA-SHORE.

Architect.



HOUSE IN PEEBLESHIRE, N.B.

SEE THE COLOUR-PLATE OF THE ELEVATIONS.

R. S. Lorimer, A.R.S.A., Architect.

FRONT VIEW OF THE MALTINGS, CAMBRIDGE

GARDEN VIEW OF THE MALTINGS, CAMBRIDGE

THIS HOUSE, AS ITS NAME IMPLIES, WAS FORMERLY A MALTHOUSE. A PART OF IT BEING PULLED DOWN TO WIDEN THE ROAD, THE REMAINING PORTION WAS TRANSFORMED INTO A RESIDENCE. ALL THE EXTERNAL WALLS ARE OLD EXCEPT THE FRONT WALL, THIS ONE BEING FACED WITH OLD BRICKS. THE TOP OF THE GABLE IS PLASTERED, THE COLUMNS AND LINTEL ARE IN PORTLAND STONE, AND THE ROOF IS COVERED WITH OLD TILES. THE OAST IS NOW USED AS A LIBRARY AND IS LIGHTED FROM ABOVE

Dunbar Smith and C. C. Brewer, Architects

The Home from Outside. Photographic Views

LINHOLME, HOLMBURY-ST.-MARY, DORKING. ADDITIONS FOR A. P. HOSKYNS, ESQ. MATERIALS: THIN RED BRICK BASE, CEMENT ROUGHCAST WHITEWASHED, OLD HAND-MADE ROOFING TILES, THE WOODWORK OF ASH

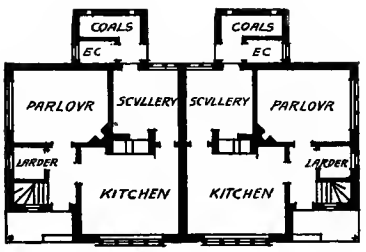
Horace Farquharson and Norman Evill, Architects

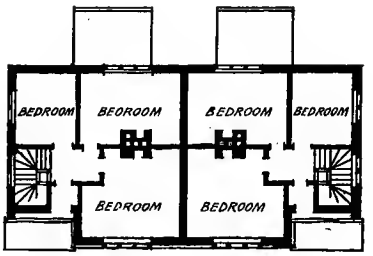
THE LOWE, WELLESBOURNE, WARWICK. ALTERED AND ADDED TO FOR MRS. NICOL. THE MATERIALS ARE RED BRICK AND RED TILES CHOSEN TO MATCH THE OLD PARTS OF THE BUILDING

Horace Farquharson, Architect

TWO COTTAGES: AT RIPLEY IN THE COVNTY OF SVRREY: HORACE FIELD·ARCHT 1904

SCALE 0 10 20 OF FEET





TWO COTTAGES AT RIPLEY, IN SURREY, COSTING £585 THE PAIR. MATERIALS: ROUGHCAST AND LOCAL TILES

Horace Field, Architect

THE HOO, WILLINGDON, SUSSEX, BELONGING TO ALEXANDER WEDDERBURN, ESQ., VIEW OF THE SOUTH ELEVATION. THE HOUSE IS ROOFED WITH RED TILES, THE WALLS ARE DINGED WITH LIME, THIN RED BRICKS ARE USED FOR THE CHIMNEYS AND THE DRESSINGS; THE BOARDING IN THE GABLES IS OF ELM

Edwin L. Lutyens, Architect

THE HOO, WILLINGDON, SUSSEX, SHOWING A VIEW OF THE TERRACE WITH ONE OF THE GARDEN HOUSES

Edwin L. Lutyens, Architect

GROUP OF COTTAGES AT COLINTON, MIDLOTHIAN. BUILT OF STONE HARLED AND WHITEWASHED, AND ROOFED WITH SCOTCH SLATES

R. S. Lorimer, A.R.S.A., Architect

The Home from Outside. Photographic Views

HIGH BARN, GODALMING

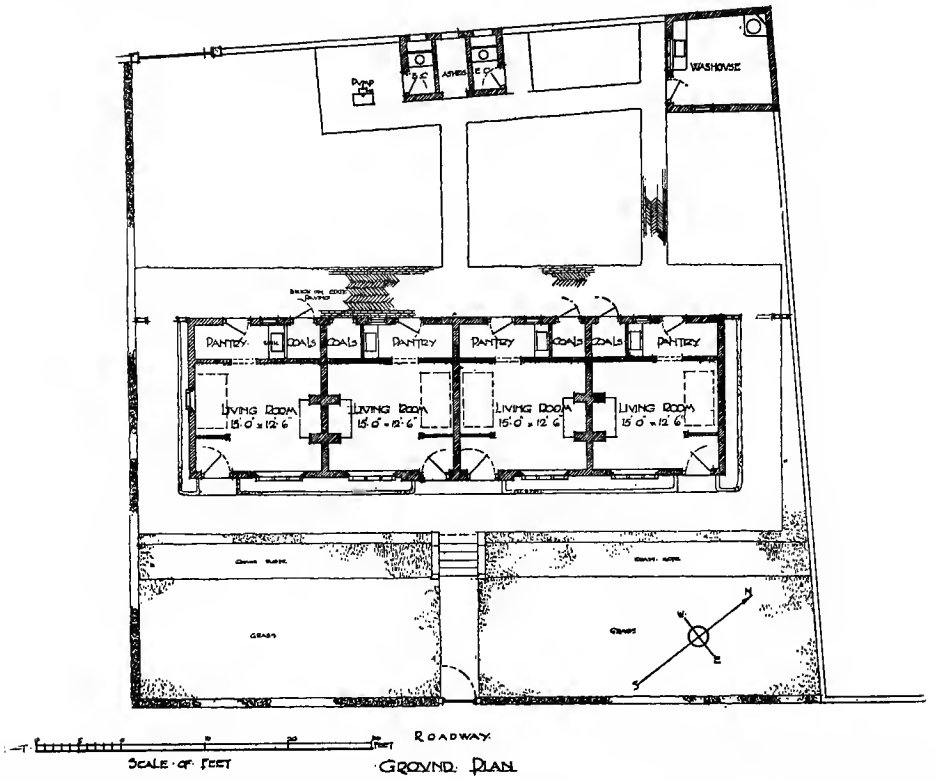
HIGH BARN, GODALMING

HIGH BARN, GODALMING, SURREY

THE PHOTOGRAPH BY T. LEWIS, BIRMINGHAM

R. S. Lorimer, A.R.S.A., Architect

The Home from Outside. Photographic View with Plan



GROUND PLAN OF FOUR ALMSHOUSES AT WESLINGTON, IN YORKSHIRE

FOUR ALMSHOUSES AT WESLINGTON, YORKSHIRE, BUILT FOR LORD DERAMORE. MATERIALS: WALLS OF LOCAL BRICKS 2" THICK, THE ROOFING OF HAND-MADE PANTILES

Walter H. Brierley, Architect

The Home from Outside. Photographic Views

HOUSE NEAR MUIZENBERG, NEAR CAPETOWN, SOUTH AFRICA, BELONGING TO ABE BAILEY, ESQ. VIEW OF THE NORTH FRONT

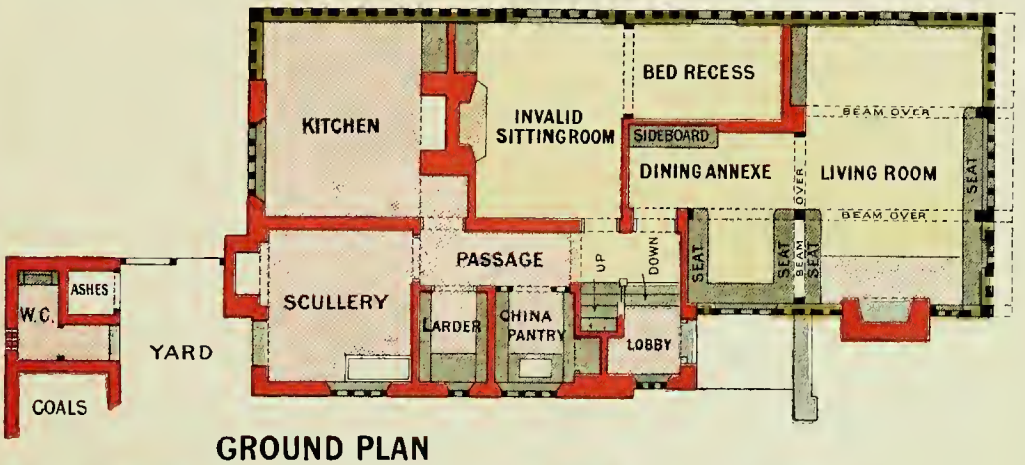
Herbert Baker, Masey & Sloper, Architects

HOUSE ON THE HINDHEAD, BUILT OF BRICK AND ROUGHCAST, WITH RED BRICK CHIMNEYS AND A ROOFING OF BROWN TILES; THE WOODWORK IS PAINTED WHITE THE DOORS AND THE TRELLIS ARE GREEN

Charles Spooner, Architect

HOUSE-AT-WINSCOMBE SOMERSET.

NORTH WEST ELEVATION

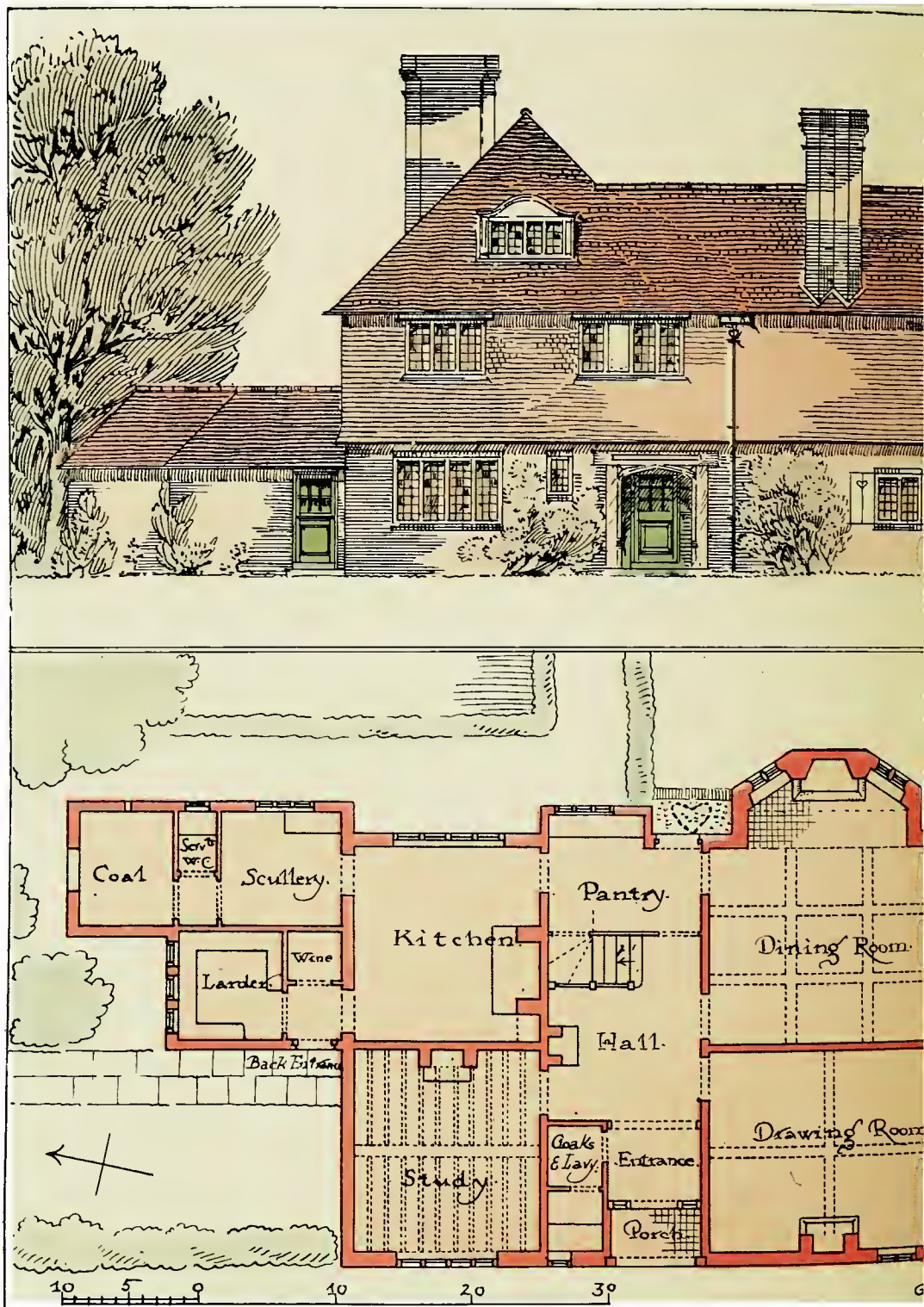


GROUND PLAN

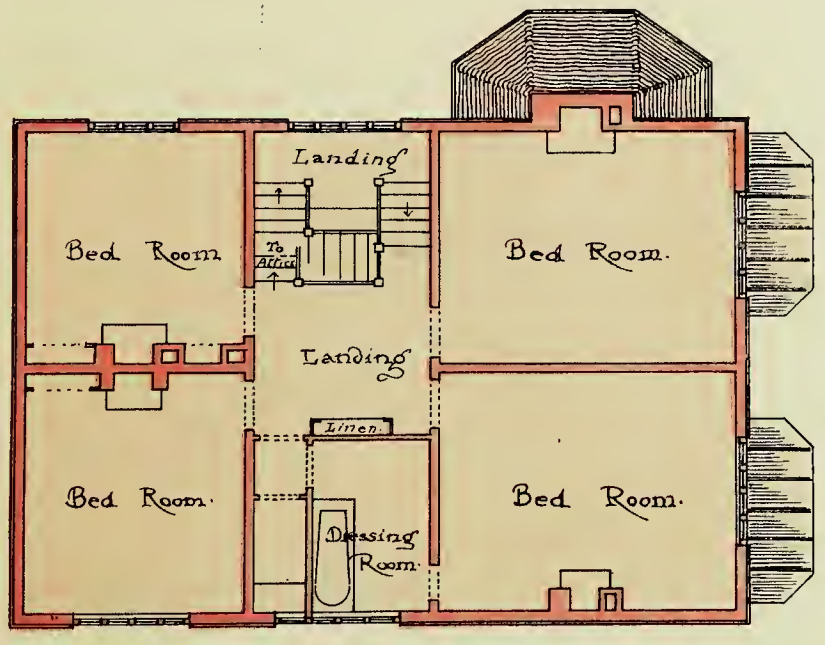
SOUTH EAST ELEVATION

THE WALLS ARE OF SOLID TIMBER AND CONCRETE RESTING ON A BASE OF STONE. THE STONE WAS QUARRIED IN THE GARDEN. THE ROOFS ARE OF RED TILE. THE COST WAS ABOUT £750. THE TOTAL EXTERNAL LENGTH OF THE HOUSE IS 64FT.

W. H. Bidlake, M.A., Architect.

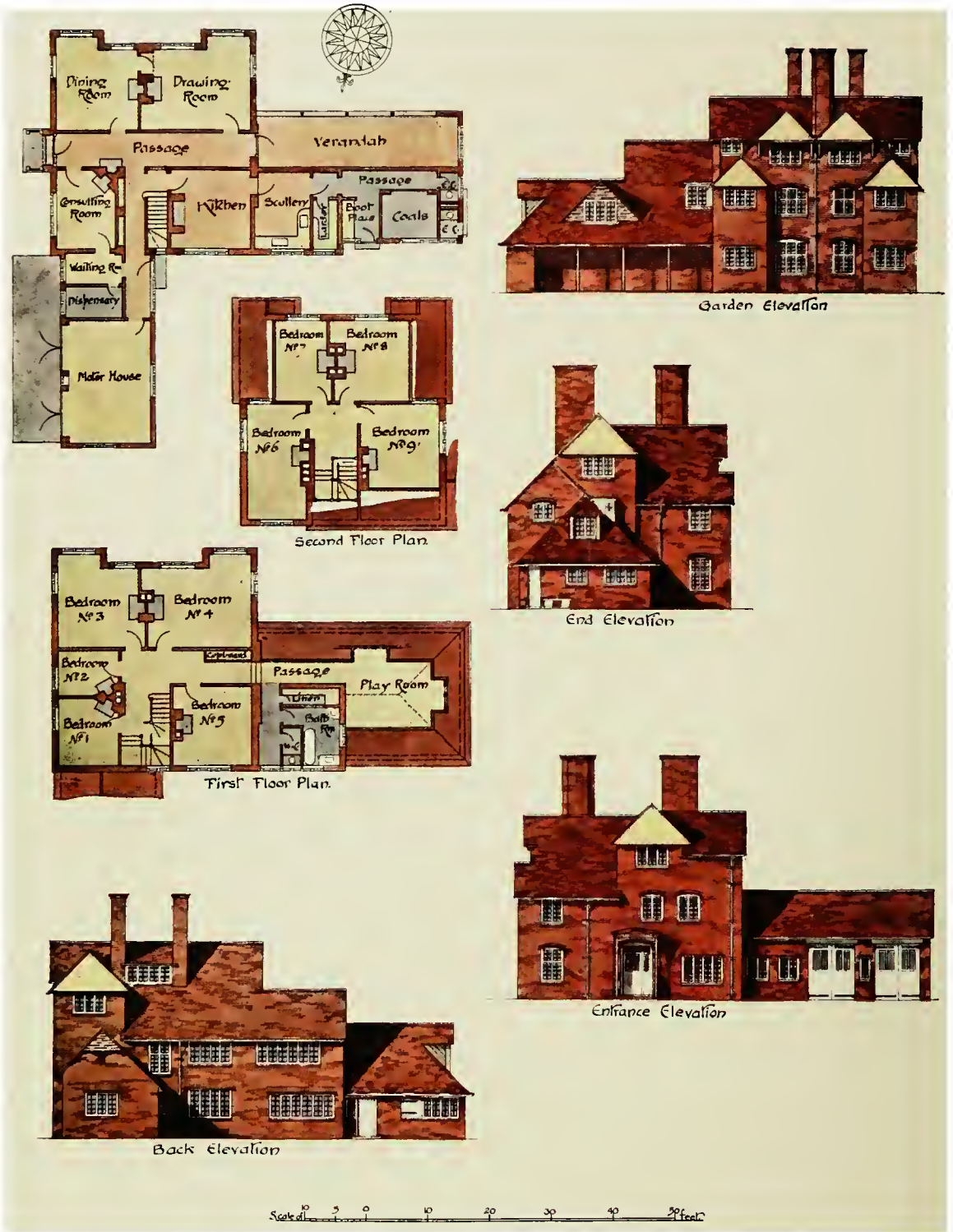


Design for a Small Country House: Ground &



Garden:

Floor Plans: & Elevations: *Gerald: C: Horsley: Architect:*



HOUSE IN BROWN LOCAL BRICKS FOR DR. C. F. WAKEFIELD, ON NORWOOD HILL, CHARLWOOD, SURREY.

Halsey Ricardo, Architect.

The Home from Outside. Photographic Views

BERRYDOWN, HAMPSHIRE. MATERIALS: BRICK AND TILE HANGING, OAK WINDOWS AND LEADED LIGHTS

Edwin L. Lutyens, Architect

HOUSE ON TABLE MOUNTAIN, SOUTH AFRICA, BUILT BY THE LATE CECIL RHODES FOR RUDYARD KIPLING

Herbert Baker, Masey & Sloper, Architects

HOUSES AND A CHAPEL IN GROSVENOR ROAD, CHESTER, BUILT OF RUABON BRICK, WITH MOULDED BRICK WINDOWS, ETC., AND THE ROOFING OF BROWN TILES

John Douglas, Architect

GREYSTOKE, NEAR WARWICK. BUILT OF BRICK AND ROUGHCAST, WITH SMALL RED BRICK FACINGS TO THE CHIMNEYS AND PLINTH, THE ROOFING OF HAND-MADE RED TILES

P. Morley Horder, Architect

KIRKDALE VICARAGE, YORKSHIRE, SHOWING A VIEW OF THE HOUSE FROM THE GARDEN

Walter H. Brierley, Architect

REDLANDS, FOUR OAKS, NEAR BIRMINGHAM, BUILT OF OLD RED BRICKS AND TILES

C. E. Bateman & Bateman, Architects

The Home from Outside. Photographic Views

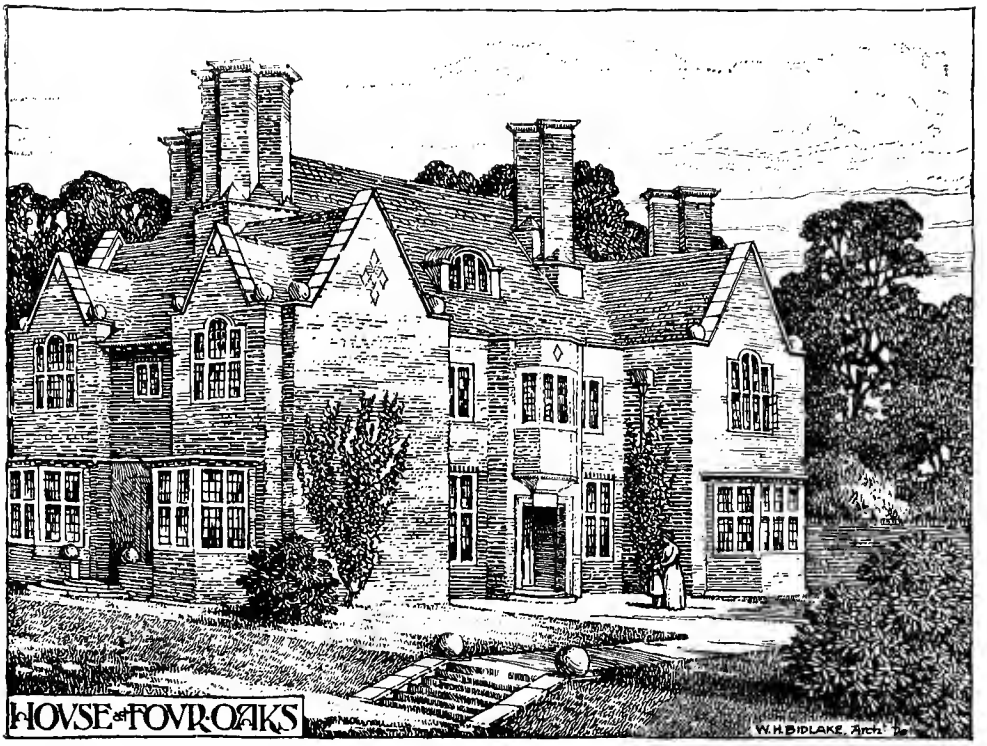
HOUSE AT RUSHMEN, NEAR IPSWICH. BUILT OF ROUGH BRICK AND OF ROUGHCAST COLOURED A RICH BUFF; THE ROOFING OF BROWN TILES, WHITE WOODWORK, GREEN SUN-SHUTTERS AND VERANDAH

Charles Spooner, Architect

COTTAGES, BATH STREET, CHESTER. BUILT OF LOCAL RED SANDSTONE, WITH RUABON BRICK CHIMNEYS AND GREY-SLATED ROOFS

Douglas & Minshull, Architects

The Home from Outside. Elevations



HOUSE AT FOUR OAKS, NEAR BIRMINGHAM. BUILT OF RED SANDSTOCK BRICKS, THE ROOFING OF RED TILES

W. H. Bidlake, M.A., Architect

COTTAGE AT CHISLEHURST. THE WINDOWS AND THE EXTERNAL WOODWORK ARE OF OAK, THE WALLS ARE WHITEWASHED, THE BUILDING IS ROOFED WITH KENT TILES

E. J. May, Architect

The Home from Outside. Photographic Views

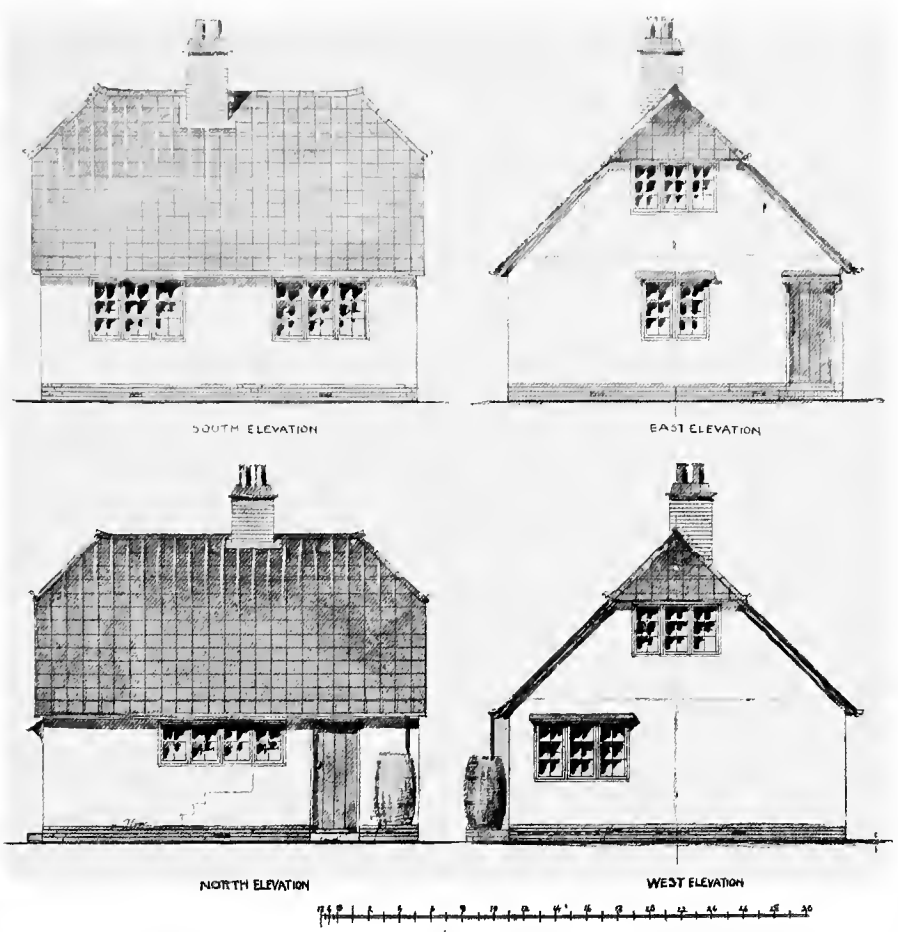
HOUSE AT REIGATE, SURREY. RED BRICK QUOINS, THE FILLING OF DARKER BRICKS FROM HOLDEN CRAWLEY, IN BERKSHIRE. THE CORNICE OF WOOD, THE ROOFS OF RED, SAND-FACED TILES

Horace Field, Architect

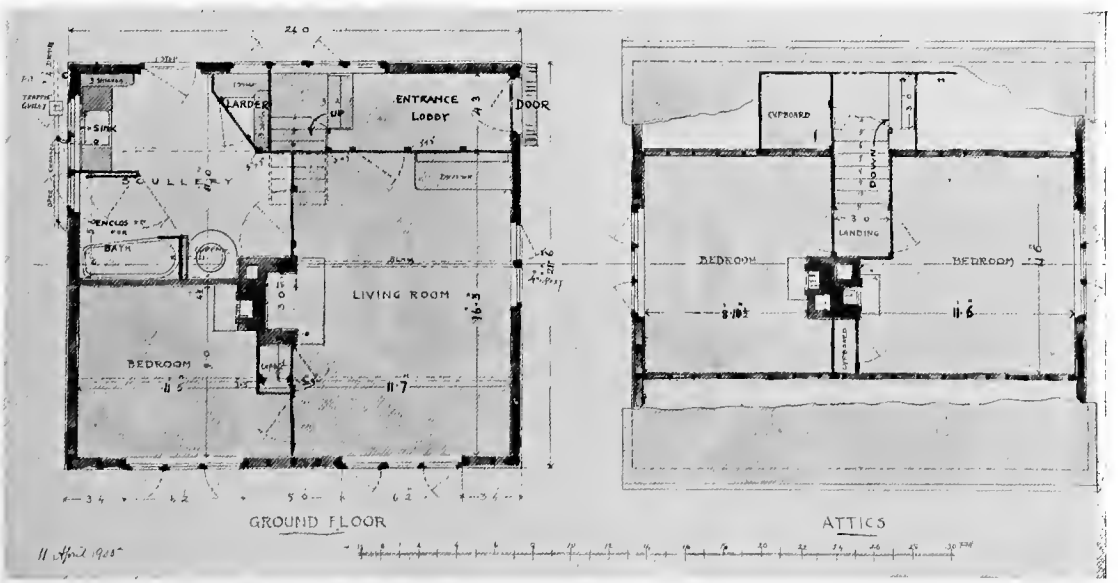
PIT KERRO, FORFARSHIRE. THE PORTION TO THE RIGHT IS A RESTORATION. REPRODUCED FROM A PHOTOGRAPH

R. S. Lorimer, A.R.S.A., Architect

The Home from Outside. Elevations and Plans



COTTAGE WITH FIVE ROOMS AT DOWNTON HORDLE, HAMPSHIRE. MATERIALS: FOUNDATIONS AND CHIMNEYS OF BRICK, BUILT ON THE 6" BED OF CEMENT CONCRETE UNDER THE BUILDING. WALLS, FLOORS AND ROOF ALL FORMED OF 4"×2" TIMBERS. WALLS COVERED WITH STEEL LATHING AND CEMENT ROUGHCAST OUTSIDE; LATH AND PLASTER INSIDE. THE SCULLERY FLOOR OF CEMENT, THE FLOORS ELSEWHERE ARE BOARDED. ROOFED WITH MAJOR'S INTERLOCKING TILES



COTTAGE WITH FIVE ROOMS AT DOWNTON HORDLE, HAMPSHIRE. SEE THE ELEVATIONS ABOVE. THE COST OF THIS COTTAGE WAS £150 COMPLETE, INCLUDING DRAINS, CESSPOOL AND ALL THE FITTINGS SHOWN ON THE DRAWINGS

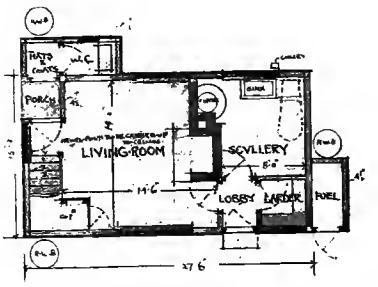
F. W. Troup, Architect

The Home from Outside. Elevations and Two Plans

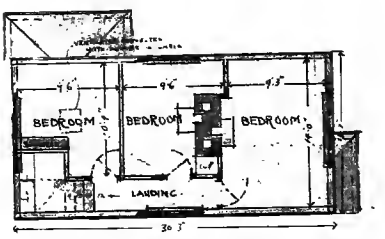
HOUSE ON THE HINDHEAD, SURREY, VIEW OF THE PORCH, A PIECE OF TIMBER CONSTRUCTION ALL IN OAK, FILLED IN WITH BRICKWORK AND PLASTER WHITEWASHED

E. J. May, Architect

SIDE ELEVATION



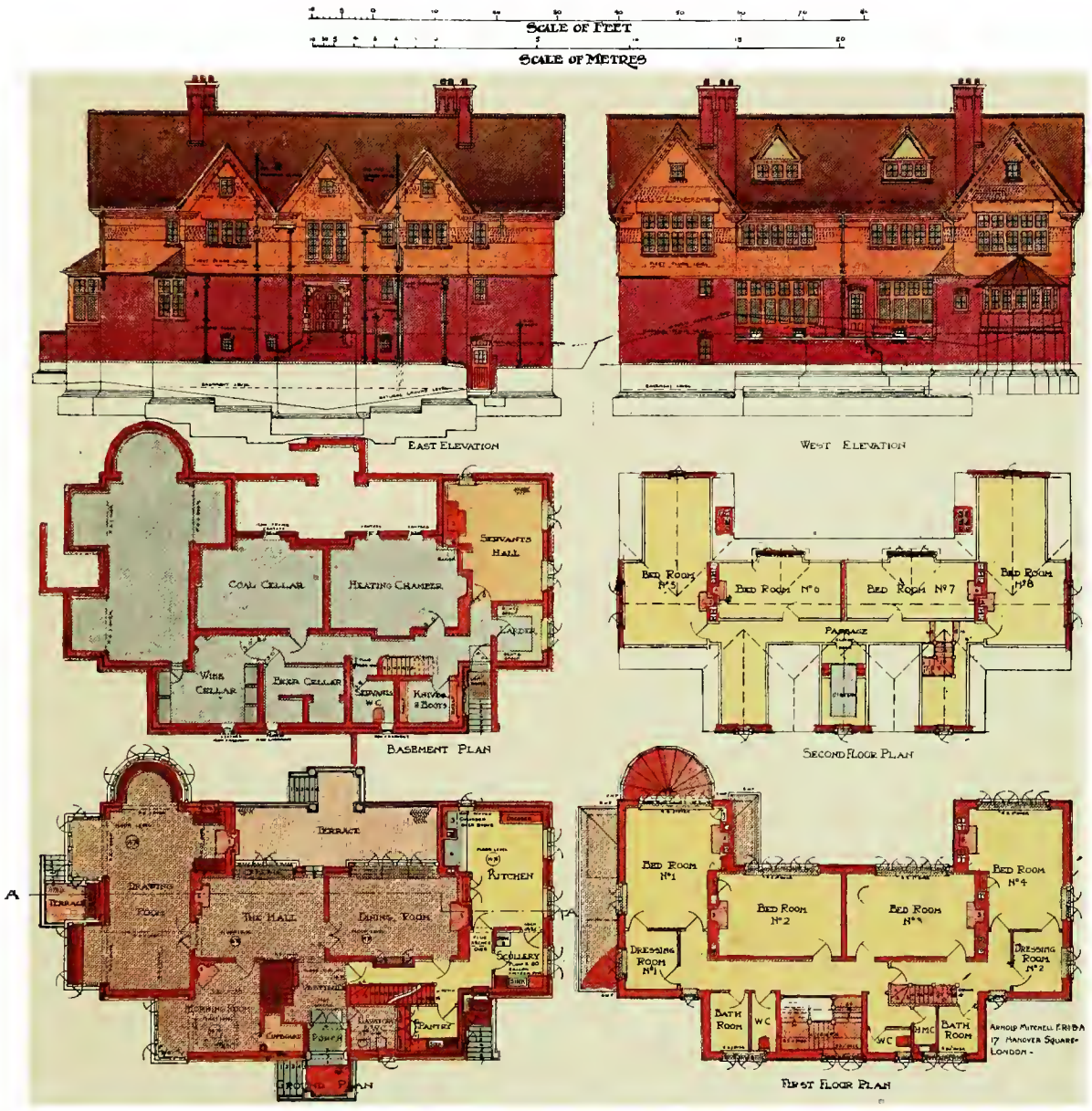
GROUND PLAN



BEDROOM PLAN

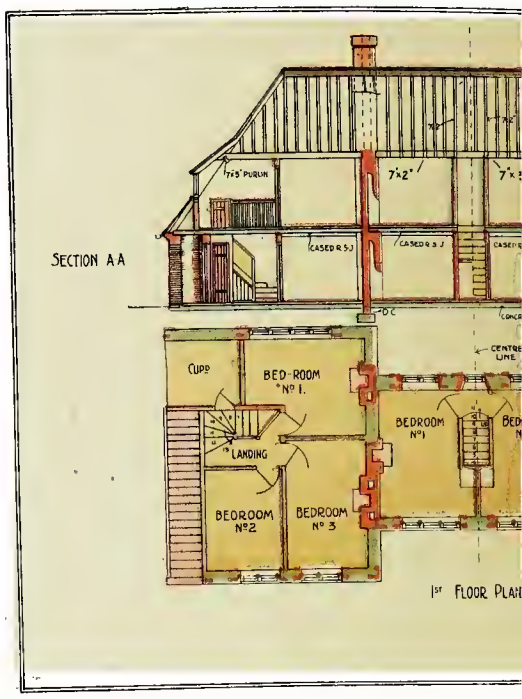
DESIGN FOR A TIMBER-FRAMED COTTAGE AT LETCHWORTH, HERTFORDSHIRE, WITH GROUND PLAN AND BEDROOM PLAN

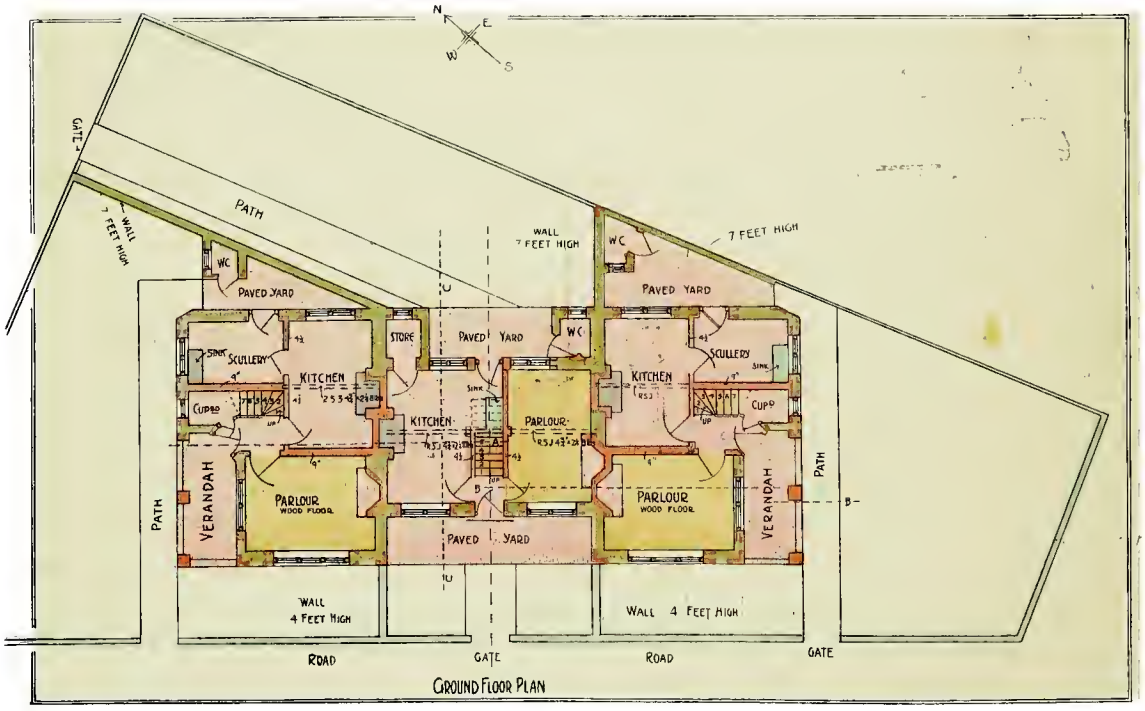
Lionel F. Crane, Architect



VILLA NEAR OSTEND. FROM THE WORKING DRAWINGS.

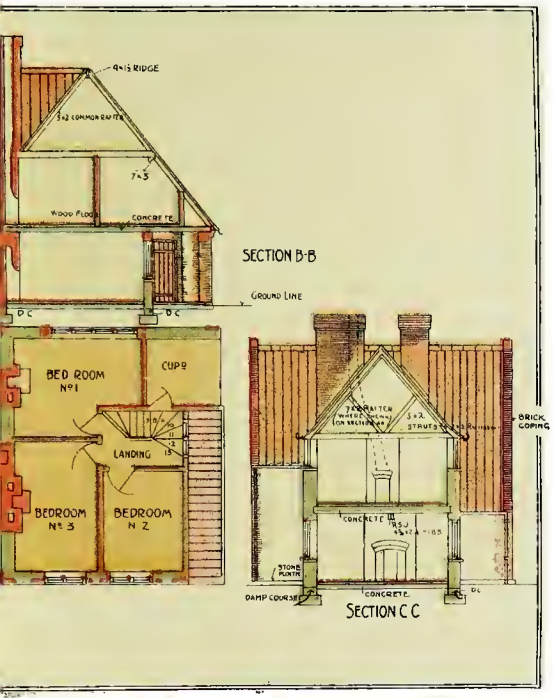
Arnold Mitchell, Architect.

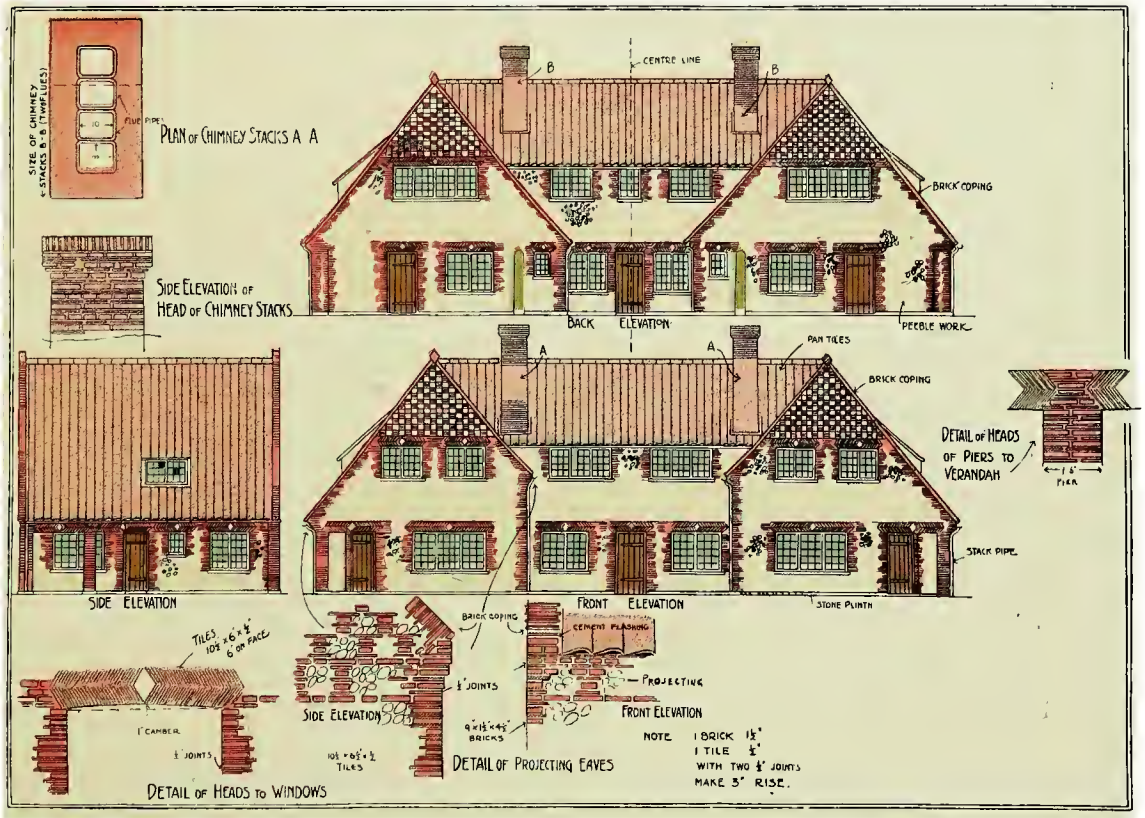




COTTAGES AT KELLING, NORFOLK.

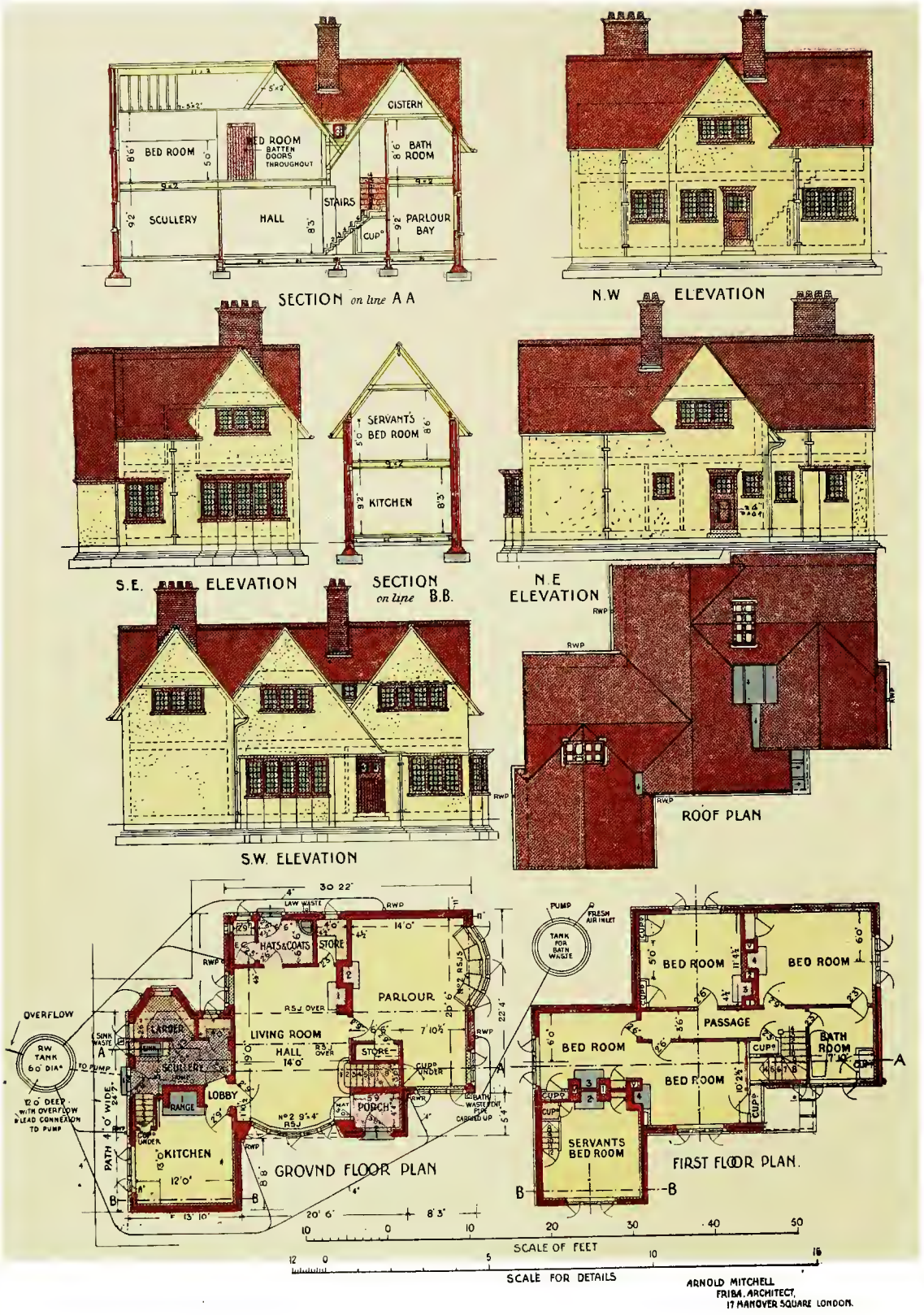
E. S. Prior,





FROM THE ORIGINAL DRAWINGS.

, Architect.



HOUSE IN HERTFORDSHIRE.

FROM THE WORKING DRAWINGS.

Arnold Mitchell, Architect.

The Interior and its Furniture

By Halsey Ricardo, Architect

ITHIN the memories of many of us, there was still extant a tradition as to how things should be done and as to which proprieties ought to be respected; and this tradition made the business of erecting and completing a house in some respects an easier matter than it is to-day. The conventions still persisting made for uniformity and gave something of an established character to even the smaller and simpler forms of building. When the carcase of a house was out of the builder's care, it passed, for its completion, into the hands of the furnisher, who himself represented a school. His function was to supplement the builder's work with fittings and with decoration, and these were necessarily in accord with the style of the day, seeing how small was the scope for variation and what a little tolerance there was for individuality. There was a "proper" way to make windows and doors; there was an accepted form for the mantelpiece, a regulation width for the dining-room table. Chintz was to be used for the bedrooms; the curtains to the drawing-room were to be of silk, or, failing that, of damask; the paper on its walls was of French grey with sprigs of flowers in gold; the furniture was either of white painted wood enriched with gold, or else of satinwood, and the door and window cases were coloured and grained to match. Downstairs, it was "oak" for the dining-room, the walls flatted in oil-colour or covered with a crimson flock paper, and the furniture upholstered in leather or in rep, with rep curtains to match. The library was treated in much the same way, but the prevailing cast was rather more sombre as befitting a "study." The hall was scarcely more than a passage. This tradition had become in the fifties a tottering survival, and the rapid expansion of means and ideas that was then taking place was more than it could cope with. Machinery proposed to supersede it,

and for a time ran a riot in its domain, and a vast output of substitutes for good craftsmanship was poured broadcast over the land.

Concurrently with the communism of machine-made products, there was a hostile individualism that would have no traffic with machinery, nor even with tradition, as a living thing. It called to the past to come and be present, and it proceeded by dint of scholarship, by collection of antique examples, to construct a basis whereon a new departure might be developed; or if that were too ambitious a project, it might at least determine the date that was most significant and most suggestive for the revival.

The over-riding of tradition might have been avoided had we known how to use our new powers, and had we but been in the temper to be patient. It was too much to ask; and the revolt from the bondage of our conventions seemed such sure evidence of a vigorous renaissance! Moreover the sleek possibilities of machinery seemed heaven-given, bringing comfort and elegance into homes that had sighed for amenities till now beyond their reach. The enrichment has been a loss, and we are slowly emerging to-day from the accretion of heartless manufacture that overwhelms us. For the last half century production has been unprincipled. The old general standard of *comme il faut* was driven out of sight far into the stagnant backwaters of remote village life, and the craftsmen were given strange outlandish things to fashion so that people might play at being in another age.

The gospel of the Gothic Revival insisted on honesty of construction and the nationality of our art. It became a moral matter and the duty of a clean-minded Christian to keep himself uncontaminated from the worldliness of the pagan Classic trappings around him. Soon this evangel abated its passion; it got perverted and spent in the channels of antiquarianism; virtue consisted in the *correct* employment of styles, and one style was as good as another. And now this virtue has disappeared, and the merit of modern work must be sought in the

ability and sincerity of the individual artist who constructs it. He gets nothing in the way of help from that fund of accumulated experience that was the right and the property of each apprentice in the days of traditional craft; he has to make his own ventures and endure the defeats from which a school would have saved him. In the exercise of his vocation he has to appeal to an audience which has been debauched by various influences, chiefly literary, into the opinion that there is no right at all in the matter, beyond that of scholarship and good taste. In the nature of things this ignorant patronage must be capricious, since it has no criterion of its own by which to judge things. We may be sure that we need the sympathy of an artist to be able to recognize whether a novelty has really fine qualities or not, whether there is really life in it, capable of being developed fruitfully, or whether the signs of life that appear are not indeed the activities of dissolution. Consequently this inartistic patronage exercises itself for the most part in encouraging copies of old work, and is instantly uneasy as soon as any departure from the recognized models begins to appear. It is so in all the arts. The diction of Carlyle was measured by the models of prose current in those days, and was found to be vehement, rough, and hyperbolical, far different from the prose of Swift or of Addison: and the critics cried out against it. Carlyle is now accepted as a classic. Wagner's music was an offence to all orthodox ears. It was labelled noisy, discordant, tedious, and the irritation of it drove some of his critics to traduce his sincerity and to call him a humbug. Painting and sculpture afford similar instances.

But in the crafts there is a further element which helps to determine its quality, and that is serviceableness. Of this the layman can form an opinion securely, but the odd thing is that this quality is one on which, apparently, he sets no value. The bulk of furniture that is being made at the present time, is made to suit all tastes; it goes anywhere, and will take almost anything. This seems, on the face of it, to be the supreme of serviceableness; but, unfortunately, when furniture is made without any relation to the position it has to occupy, it turns out to be

disobliging in its nature. Being without any special relation to what it is to contain it manages to be exasperatingly unaccommodating. Moreover, under such conditions, furniture can have no special individual character. It has been made for the average man—the one man that does not exist, of all the many millions who have to surround themselves with furniture. Still, though each man has his own individuality, he is the subject of much standardization. The amount of variation in the size of men is slight; within an inch or so men's clothes when folded occupy much the same space. Books group themselves into recognized sizes. The manufacturer ignores these constants. Wardrobes, chests of drawers and trunks bear no relation to shirts and suits of clothes; while bookcases, even when the shelves are adjustable, are generally too deep, so that it is a perpetual worry to get the books to face evenly, and one book loses itself behind another.

Then again the height of furniture shows want of thought. There should be no parts inaccessible except by steps, or even parts difficult to reach on foot, except under very special conditions. In most cases there is no actual justification for being saddled with these uncomfortable pieces beyond the common experience that the purchaser cannot get properly proportioned pieces. When the house and its fittings grow up together, the house is there to dictate in great measure how the lesser parts shall go and to requisition a considerable amount of thought to ensure a successful adaptation. The staircase is a common offender. In a town house, as a general rule, the lower flights connect the downstairs sitting-rooms with the drawing-room on the first floor; people go up and down these flights in pairs, arm-in-arm; the staircase is thus the introduction to the principal room of the house, and it is important that it should play up to its rôle, and make a good impression in the doing. But in the country, the sitting-rooms are generally all on the ground floor, and the staircase leads only to the bedrooms. Instead of being the feature on entrance, it really should be quite away from, or at least out of sight of, the front door. Very often there is only one stairs for all the service in the house, and it

is desirable to keep the engineering and manipulation of the house as unobtrusive as possible. The stairs must be handy to the principal bedrooms, within sight of the spare room, and one's visitors must be able to reach the sitting-rooms without having to cut across the service traffic. A convenient staircase should fulfil all these requirements. Boxes have to be taken up and down the stairs, so that even if the staircase is round a corner, it is not to be starved in width or planned as a corkscrew. The illustration to "Walwood" (page 110) gives what seems an apt example of how a staircase can be located to meet these views.

The tendency of furniture, since the palmy days of the XVIII century, has been to affect architectonic scholarship. The baluster becomes a column with capital and base complete, enclosing possibly an arcaded panel, and surmounted by an entablature with a broken pediment, etc.—all proper. The cabinet maker has been playing up to the architect, and the architect has been ruling the lines for the cabinet maker. The sense of being in touch with the straightforward use of the material has in great measure gone, but the perfect workmanship and finish go far to atone for this loss, and the equilibrium of the situation is maintained. However, towards the end of the eighteenth century, architecture had become academic and doctrinaire, had stiffened into a bare formalism, and all the "moveables" tried to range themselves in sympathy with this dry sense of culture. After the stress of the Gothic revival had abated somewhat, the hand of the architect still showed itself, the classic cornices and entablatures reappeared, only by this time machinery had asserted itself in the workshops and mechanically cut mouldings rioted luxuriantly over every piece of cabinet work. But the excuse for this unnatural detail was gone. The justification for this wealth of ornament was the pride and dexterity of the craftsman, and as soon as machine-work imitation had supplanted his skill, the loss of his personality meant the loss of interest in the thing made. Moreover, to justify the properties of the machine and the expense of its construction, it was necessary to keep it incessantly at work, and so enrichment was

plastered all over the piece, to get a remunerative dividend on the capital invested in the machine. Its merits, too, stood in its own light. A machine can turn you out acres of panelling, all beautifully true and uniform—and uninteresting. Until the chill accuracy is broken up by pictures and furniture, it is almost intolerable; the colour and the figure of the grain of the wood give one the sole relief, until the furniture comes to break its drear monotony. It is not that machine work should not be introduced, it is necessary and inevitable, but it should be kept quietly in the background, giving us the comfortable feeling of material and colour; and the eye when it rests on any feature in the room should have the refreshment of looking at a bit of handwork, and derive from it some of the pleasure the craftsman had in devising it. Take Mr. Lorimer's "Oak Hall in a House in Cumberland" as an instance of such treatment (page 116). The eye instinctively makes for the carving on the fireplace and to the gallery. Ornament is the blossom that comes to crown sincere and thoughtful workmanship. If it be not this, if the craftsman has no real thought or experience to communicate, it becomes mere idle talk, wearying and obstructive. But if a man cares about what he is doing, takes a pleasure in developing the resources of the material he is handling, and desires to set them off in the best light they can afford, he will give evidences of his affection for his subject. Art is man's message to man. William Morris's dictum, "Have nothing in your house that you do not know to be useful or believe to be beautiful," is a good working formula: and let us prize good workmanship as one of the prime ingredients of beauty.

There is no need to have the usual congestion of furniture in a room. Most rooms are woefully overcrowded. In one's passage through life there is a general accretion of possessions, but let us begin on a simple scale and try to keep the apparatus of life as much within bounds as possible. In these days of continuous effort to diminish the burden of service, every piece of not strictly necessary furniture means so much more labour for the housemaid, so much more area for the accumula-

tion of dust and dirt, and so much more opportunity for accident and damage. We are taught to look upon projecting surfaces as fraught with danger and disease, we are advised to round every corner and angle to diminish the harbourage of germs and to facilitate the easy removal of them from their resting-places; and though we are not bound to carry out these counsels to their last logical conclusions, our furniture should not be wanton offenders against them.

Moreover, as all these illustrations go to show, we can to a large extent abjure those incriminated ledges and projections to our furniture—for one of their striking characteristics is the ease with which they can be dusted and kept clean. The illustrations of the house in Maida Vale (pages 108, 110), and the Hall of the Cambridge House, the Maltings (page 114), show how much may be gained by the absence of the usual plethora of room furniture. It comes almost as a surprise to find that an ordinary London house can be made to look so airy and spacious, and yet the addition of these qualities is got chiefly by the renunciation of what are after all but our superfluities. There was—and still is—an idea that if the things in themselves are beautiful, one cannot have too many of them. A glance into a museum ought to be enough to dispel that notion. Is there, in all the wide world, so unhomely a place as a museum or a gallery of art? Museums have their uses indubitably. They are custodians of relics of past times, of masterpieces; they are rescue-homes for articles that need protecting from neglect or from the brutal lust of destruction that ramps abroad; and they are centres of education, showing to the craftsman those models of what has been done, and by their chronological sequence how the results came about. But these collections though instructive are not beautiful. Indeed, they are only our poor best endeavour, in a rather bad state of affairs. Many of the enclosed treasures have been ravished from their proper surroundings and are set down forlornly away from their context, and out of relation to the places for which they were designed. Like jewels torn out of their setting, they

still are intrinsically valuable; they cannot, because of their rarity, be replaced; they have the virtues that naked jewels have, but their full beauty is hardly to be measured, because one must supply, in imagination, the proper foils and background, and for this much knowledge as well as imagination is required. Chimney-pieces, bits of panelling, plaster ceilings, *disjecta membra* of what was once a room, are exposed to our gaze as might be the feathers of some historic fowl—the bird really was the object of beauty, the feathers were important factors no doubt, but it was their precise synthesis that made the charm. Nor is there very much room for special design in these feathers; not much more development is possible in panellings or in chairs, for instance; new methods for the more complete combustion of coal may make slight variations in the form of our fireplaces, but, broadly speaking, the main forms and dimensions of our room fittings have become fixed. A door, a chair, or a table bears a distinct relation to the human beings who are to use it. The stature of man has not greatly changed in the last 500 years, the height and width of his chair require no adjustments, except to meet the modern habit of promiscuous lounging which our ancestors indulged in only at regular periods. Woman's dress may affect the width of a door, but hardly its height. The table of to-day, as regards its height and construction, would suit King Arthur, even if it would not accommodate all his knights. The difficulty is not in providing the materials, but in the selection and distribution of them; it is their subordination that demands the artist's feeling. And their use. It is the human touch that crowns the whole. Until the house, until the room has been lived in, all looks inhuman, forbidding; it is only when the walls and their contents are redolent of human attention and human care, that the interior and its furniture can be a pride to its owners and a joy to those who see and use them.

HALSEY RICARDO

DINING-ROOM IN A HOUSE AT HAMPSTEAD, LONDON. REPRODUCED FROM A PHOTOGRAPH BY W. E. GRAY

R. Norman Shaw, R.A., Architect

ROOM IN DANEWAY HOUSE, NEAR CIRENCESTER, WITH FURNITURE, ETC., DESIGNED BY

Ernest W. Gimson, Craftsman

DRAWING-ROOM IN A HOUSE AT HAMPSTEAD, LONDON REPRODUCED FROM A PHOTOGRAPH BY W. E. GRAY

R. Norman Shaw, R.A., Architect

WRITING CABINET IN STRIPED ITALIAN WALNUT

BOOKCASE CABINET IN STRIPED ITALIAN WALNUT

Designed by

R. S. Lorimer, A.R.S.A., Architect

DINING-ROOM PANELLED IN FUMED OAK, AND ENRICHED WITH BEAMS AND A FRIEZE OF MODELLED PLASTER

R. S. Lorimer, A.R.S.A., Architect

THE PARLOUR, 118, MAIDA VALE, LONDON. VIEW SHOWING THE CEILING, THE FIREPLACE, AND THE FURNITURE. THE PHOTOGRAPH BY W. E. GRAY

E. Guy Dawber, Architect

WALWOOD, SURREY. VIEW FROM THE DRAWING-ROOM ACROSS THE HALL INTO THE DINING-ROOM. THE DRAWING-ROOM HAS A BARREL CEILING OF PAINTED PLASTER, THE WALLS ARE COLOURED. ALL THE FLOORS AND STEPS ARE OF JARRAH WOOD. THE DINING-ROOM IS ON THE LEVEL OF THE CORRIDOR, SOME THREE STEPS UP

E. Guy Dawber, Architect

WALWOOD, SURREY, VIEW OF THE CORRIDOR, SHOWING THE ENTRANCE TO THE STAIRCASE

E. Guy Dawber, Architect

THE DINING-ROOM, 118, MAIDA VALE, LONDON, SHOWING IN A LONDON HOUSE THE EFFECT OF SIMPLE FURNITURE AND A QUIET CHIMNEY-PIECE

E. Guy Dawber, Architect

HALL TABLE, 7 FT. 2 INS. LONG

FROM A COPYRIGHT PHOTOGRAPH

Ernest W. Gimson, Craftsman

OAK SETTEE

FROM A PHOTOGRAPH

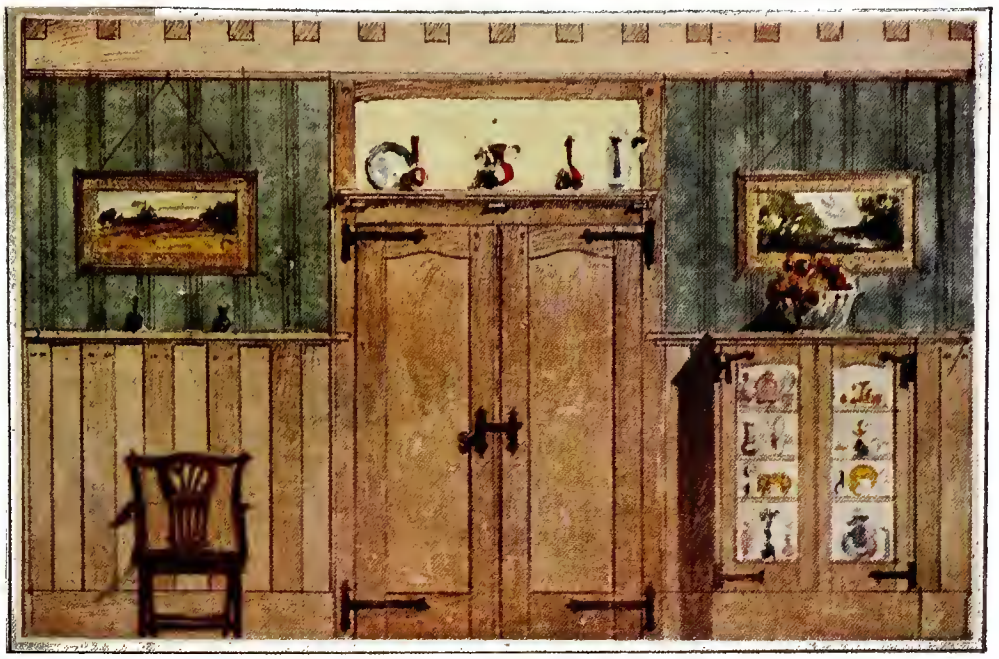
Ernest W. Gimson, Craftsman

WALWOOD SURREY — VIEW OF THE CORRIDOR

E. Guy Dawber, Architect

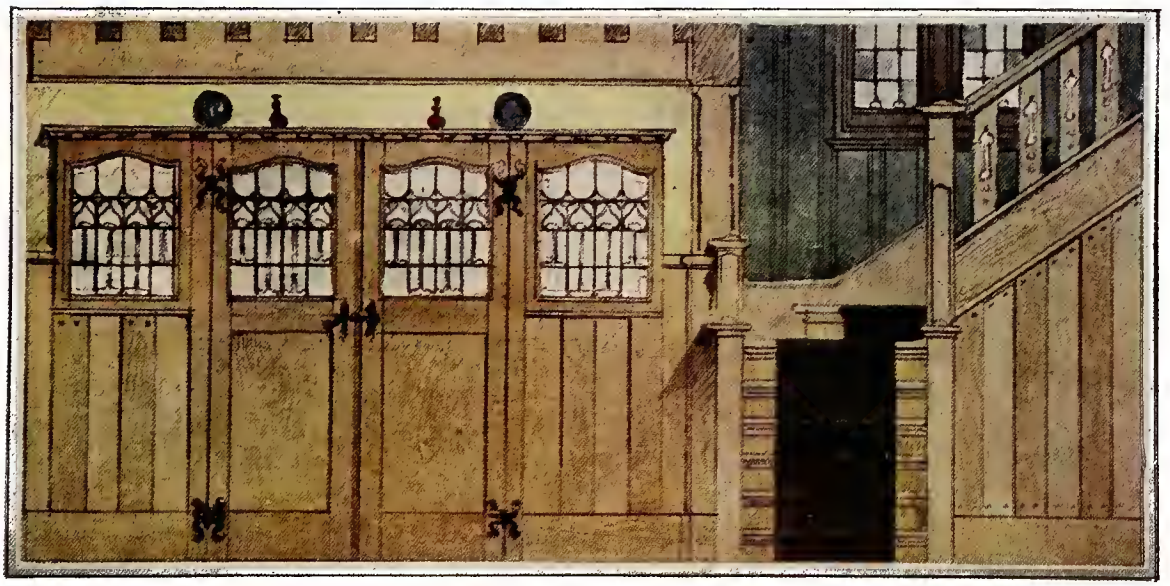
PICKENHAM HALL, NORFOLK — THE MAIN STAIRCASE IN OAK

R. W. Schultz, Architect



SIDE OF A SMALL DINING-ROOM. FROM THE ORIGINAL DESIGN.

John Cash, Architect.



SIDE OF A SMALL HALL. FROM THE ORIGINAL DESIGN.

John Cash, Architect.

WRITING CABINET IN MAHOGANY, OPEN FOR USE

WRITING CABINET IN MAHOGANY, SHUT AND LOCKED

Ernest W. Gimson, Craftsman

THE MALTINGS, CAMBRIDGE

VIEW OF THE LIBRARY

THE MALTINGS, CAMBRIDGE

VIEW OF THE HALL

Dunbar Smith and C. C. Brewer, Architects

SCALERS HILL, COBHAM, KENT

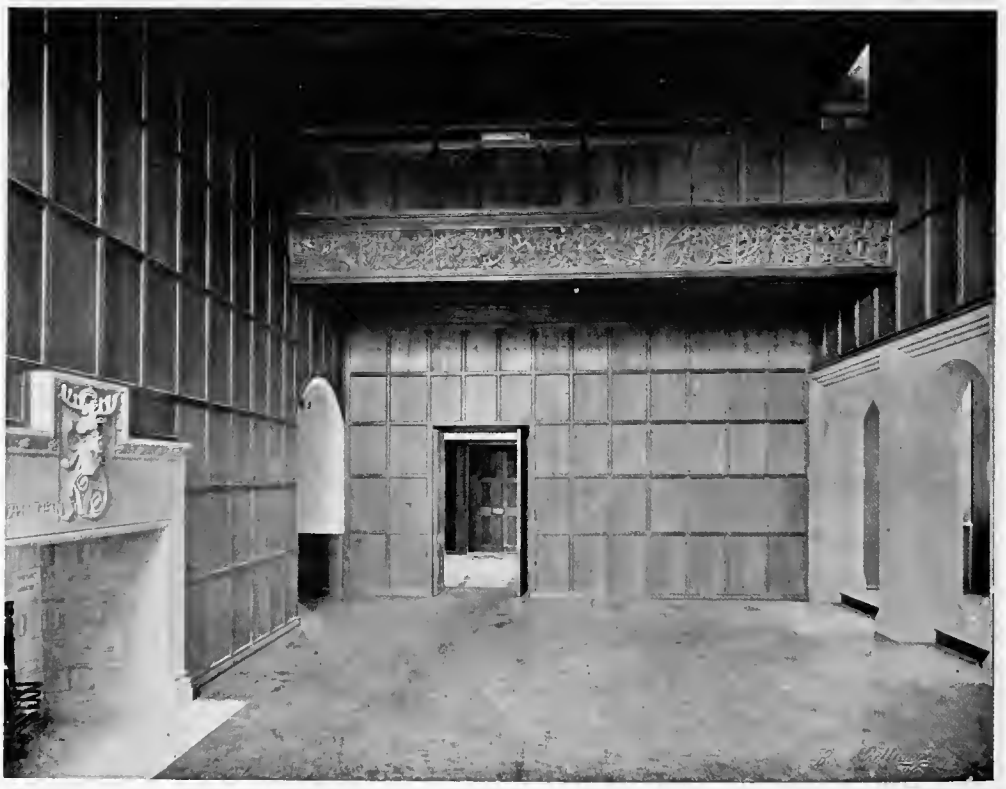
VIEW OF THE LIVING-ROOM IN ENGLISH OAK

R. W. Schultz, Architect

CHAIRS IN SPANISH MAHOGANY

CHAIRS IN SPANISH MAHOGANY

Designed by
Charles Spooner, Architect



OAK HALL IN A HOUSE IN CUMBERLAND, WITH A GALLERY ENRICHED WITH A BAND OF PIERCED CARVING

R. S. Lorimer, A.R.S.A., Architect

DINING-ROOM IN A LONDON HOUSE WITH FURNITURE DESIGNED BY

Charles Spooner and Arthur J. Penty

DINING-ROOM WITH A MODERN CORNER-CUPBOARD IN OAK, A MODERN EXTENDING DINING-TABLE IN OAK AND A WALL DECORATION OF GOTHIC TAPESTRY

R. S. Lorimer, A.R.S.A., Architect

THE HALL IN A HOUSE AT MUIZENBERG, CAPETOWN, SOUTH AFRICA. IT IS LINED WITH CIPOLIN MARBLE TO A HEIGHT OF 7 FT., FROM WHICH HEIGHT THE GROINING OF PLAIN WHITE PLASTER SPRINGS.

DINING-ROOM IN TEAKWOOD AND WHITE PLASTER IN A HOUSE AT MUIZENBERG, CAPETOWN, SOUTH AFRICA, BUILT FOR ABE BAILEY, ESQ.

Herbert Baker, Masey and Sloper, Architects

VIEW OF THE HALL IN A HOUSE AT MUIZENBERG, NEAR CAPETOWN, SOUTH AFRICA

Herbert Baker, Masey and Sloper, Architects

ADHURST-ST.-MARY, PETERSFIELD. THE STAIRCASE HALL, WITH PANELLING OF AUSTRIAN OAK SLIGHTLY FUMED AND DULL WAX-POLISHED. THE PHOTOGRAPH BY THE MISS PICKERINGS, PETERSFIELD

Horace Farquharson, Architect

LIBRARY TABLE IN ENGLISH WALNUT

Sidney H. Barnsley, Craftsman

DRESSING-ROOM IN A HOUSE IN FIFESHIRE, WITH THE PANELLING AND THE BED IN OAK, THE PLASTER FRIEZE IN RELIEF AND COLOURED

R. W. Schultz, Architect

STENCILLED NURSERY FRIEZE

FROM THE ORIGINAL CARTOON

A SILVER MEDAL DESIGN IN THE NATIONAL COMPETITIONS

By Florence Laverock, Liverpool School of Art

BEDROOM FURNITURE IN TEAK — REPRODUCED FROM A PHOTOGRAPH

Charles Spooner, Architect

BUREAU AND CHAIRS — FROM A PHOTOGRAPH

The Chairs by Arthur J. Penty, Craftsman
The Bureau by Charles Spooner, Architect

AN ANGLE FIREPLACE IN A BOUDOIR

FIREPLACE IN A BEDROOM

R. S. Lorimer, A.R.S.A., Architect

FOLDING TEA-TABLE IN ITALIAN WALNUT. ADAPTED FROM AN OLD DESIGN

VIEW IN A DINING-ROOM, SHOWING THE STONE CHIMNEY-PIECE

R. S. Lorimer, A.R.S.A., Architect

BOOKCASE AND LAMPSTAND IN STRIPED ITALIAN WALNUT

R. S. Lorimer, A.R.S.A., Architect

ROOM IN DANEWAY HOUSE, NEAR CIRENCESTER, WITH PLASTERWORK AND FURNITURE DESIGNED BY

Ernest W. Gimson, Craftsman

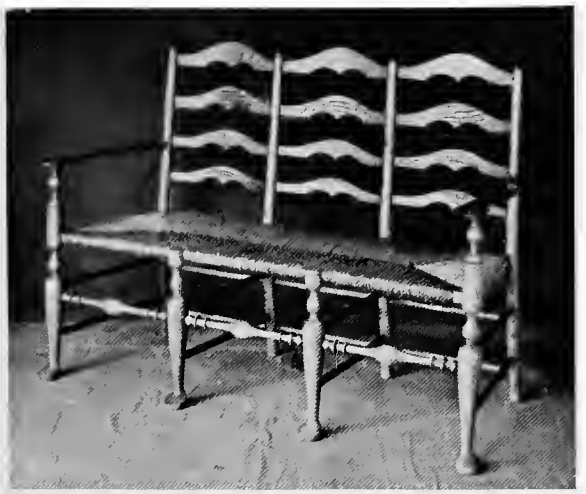
MAHOGANY WASH-TABLE HAVING A GLASS TOP

DRESSING-TABLE IN ENGLISH OAK

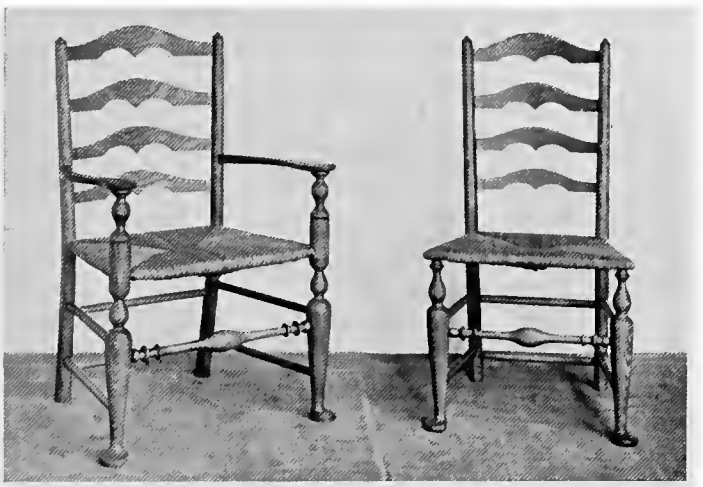
WALNUT WASHING-TABLE WITH A GLASS TOP

Designed by

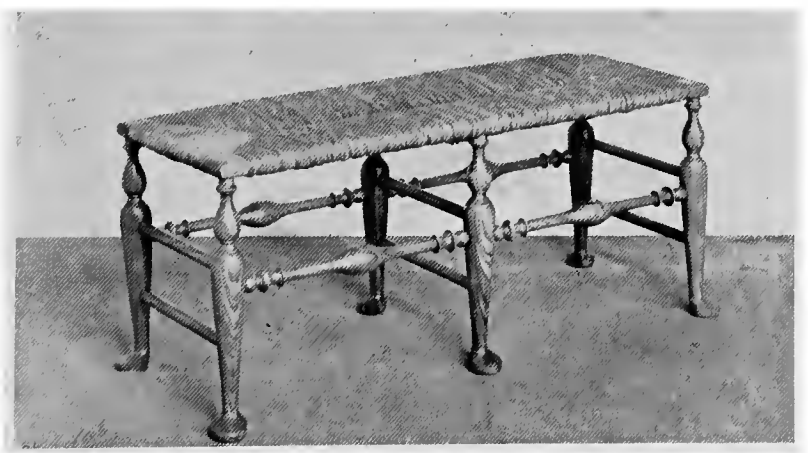
Edwin L. Lutyens, Architect



RUSH-SEATED SETTLE IN ASH, THE WOOD STAINED AND WAXED



RUSH-SEATED CHAIRS IN OAK AND ASH, THE WOOD STAINED AND WAXED



RUSH-SEATED STOOL IN ASH, 3 FT. 6 IN. LONG, THE WOOD STAINED AND WAXED

Designed by

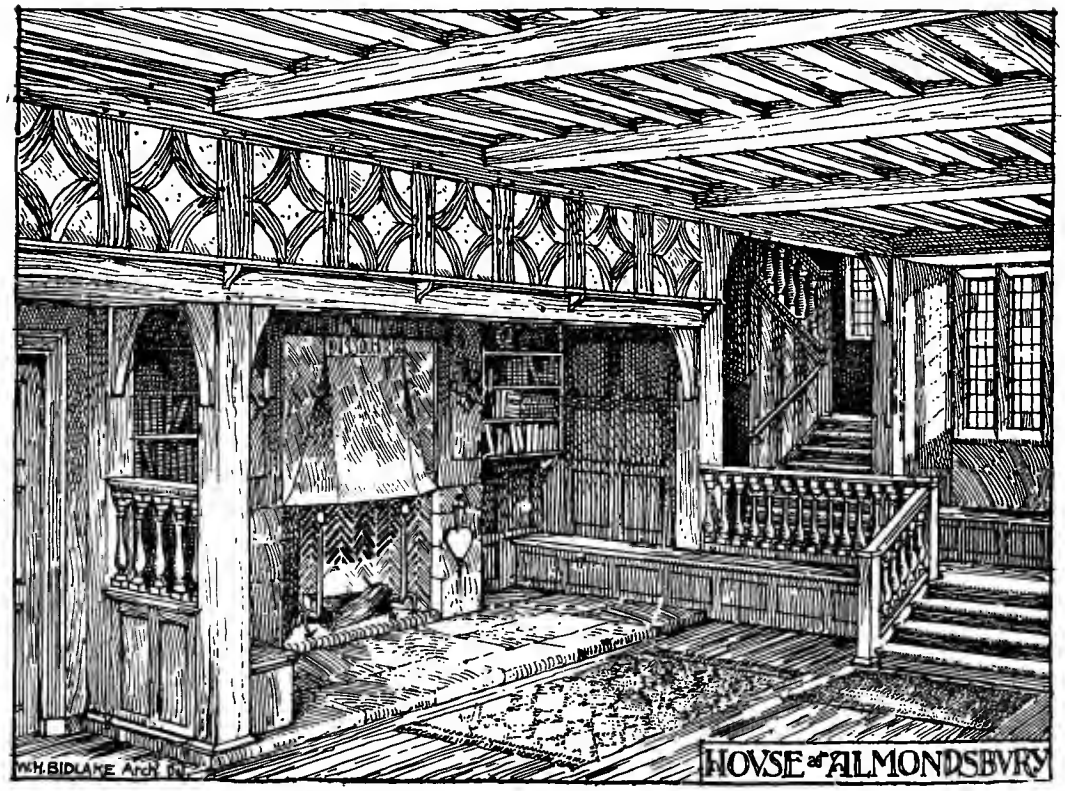
Edwin L. Lutyens, Architect

A BED-SOFA USED AS A BED

A BED-SOFA USED AS A SOFA

Designed by

Charles Spooner, Architect



HALL IN A HOUSE AT ALMONDSBURY, IN OAK TIMBERWORK AND PANELLING. THE DIFFERENCE OF FLOOR LEVEL IS AN ADAPTATION TO THE SLOPE OF THE GROUND

W. H. Bidlake, M.A., Architect

YAFFLES, HINDHEAD, THE DINING-ROOM REPRODUCED FROM A PHOTOGRAPH

Charles Spooner, Architect

ROOM IN DANEWAY HOUSE NEAR CIRENCESTER, WITH PLASTERWORK AND FURNITURE DESIGNED BY

Ernest W. Gimson, Craftsman

CABINET IN WALNUT AND EBONY. WIDTH 2 FT. 10 IN. HEIGHT 4 FT. 6 IN.

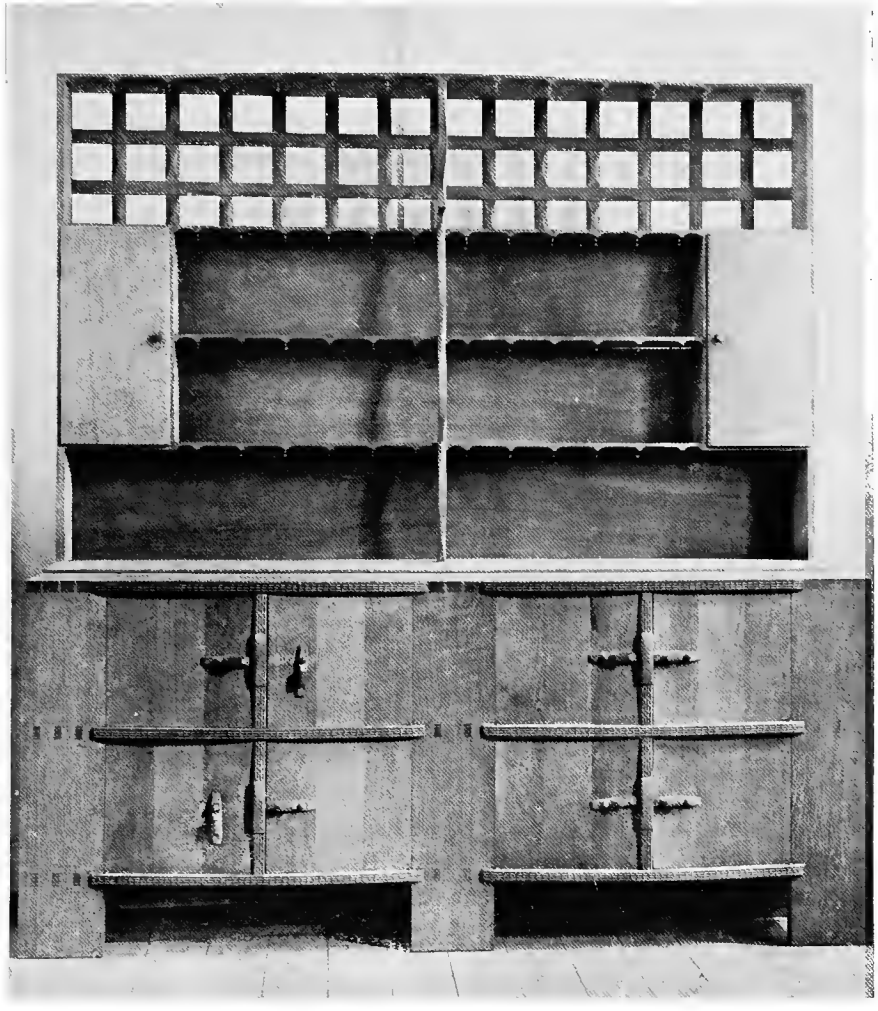
MAHOGANY CHAIR, RICHLY INLAID WITH EBONY AND SATINWOOD

Ernest W. Gimson, Craftsman

THREE PAINTED PANELS FOR A NURSERY OVERMANTEL — SCALE, 2 INCHES TO THE FOOT — REPRODUCED BY PERMISSION FROM THE ORIGINAL SKETCHES

NATIONAL GOLD MEDAL DESIGN BY

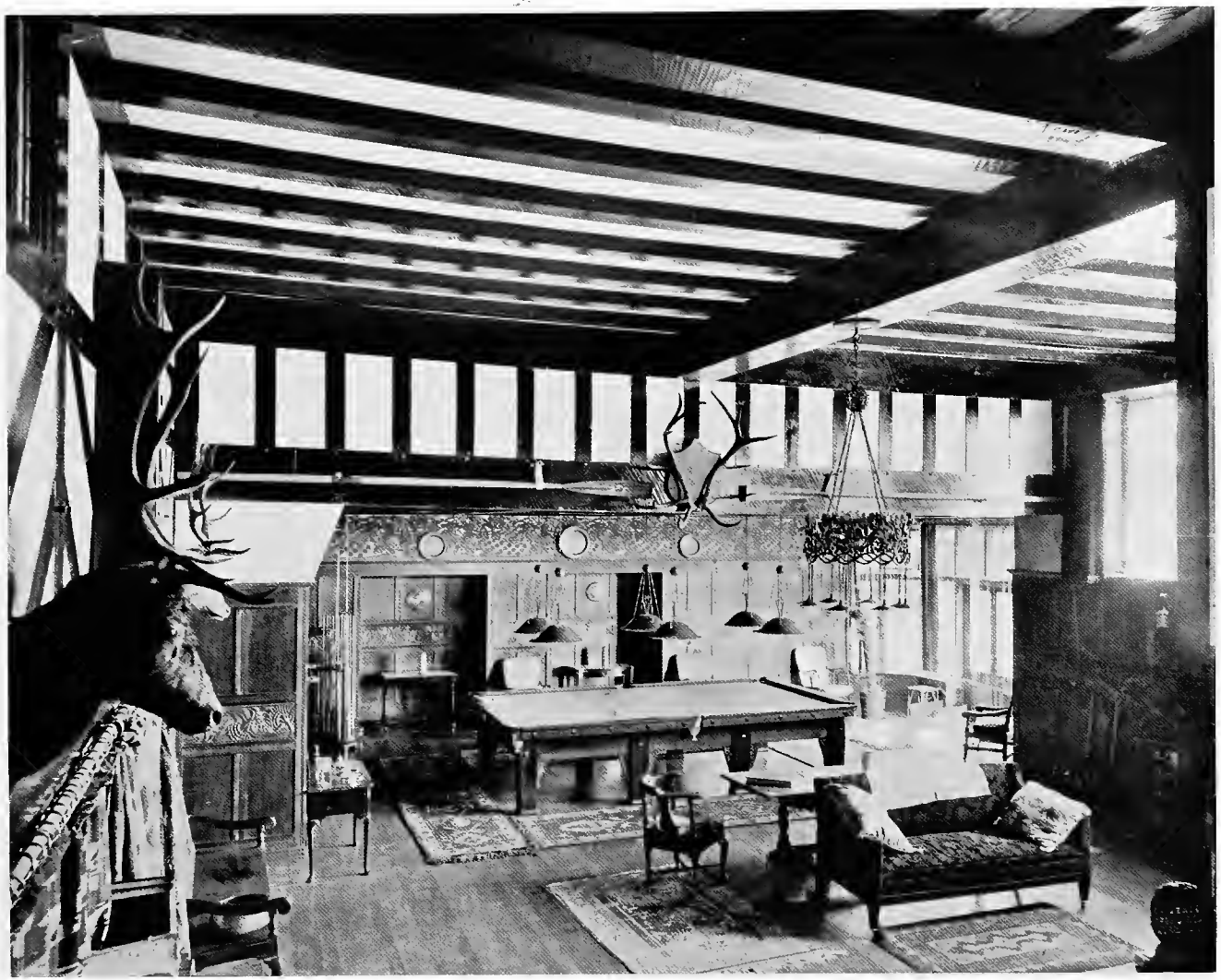
Winifred Blackburn



OAK SIDEBOARD, 7 FT. WIDE AND 7 FT. HIGH

SIDEBOARD IN ENGLISH OAK, 4 FT. 6 IN. WIDE

Ernest W. Gimson, Craftsman



THE HALL, BLACKWELL, WINDERMERE, WITH THE WALLS PANELLED WITH OAK. THE BILLIARD-ROOM HERE FORMS A RECESS IN THE HALL, SO THAT THE BILLIARD TABLE OCCUPIES A POSITION THAT ALLOWS THE FREE USE OF THE HALL WHILST THE GAME IS BEING PLAYED

M. H. Baillie-Scott, Architect

HALLYBURTON HOUSE

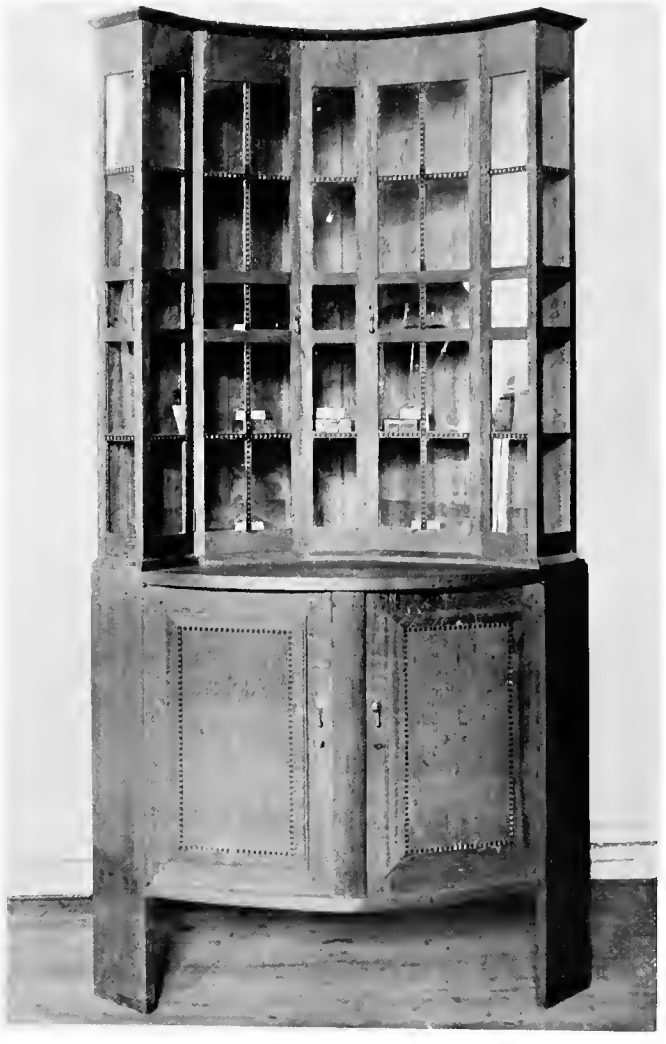
RECESS IN THE BILLIARD-ROOM

HALLYBURTON HOUSE

VIEW OF THE STUDY

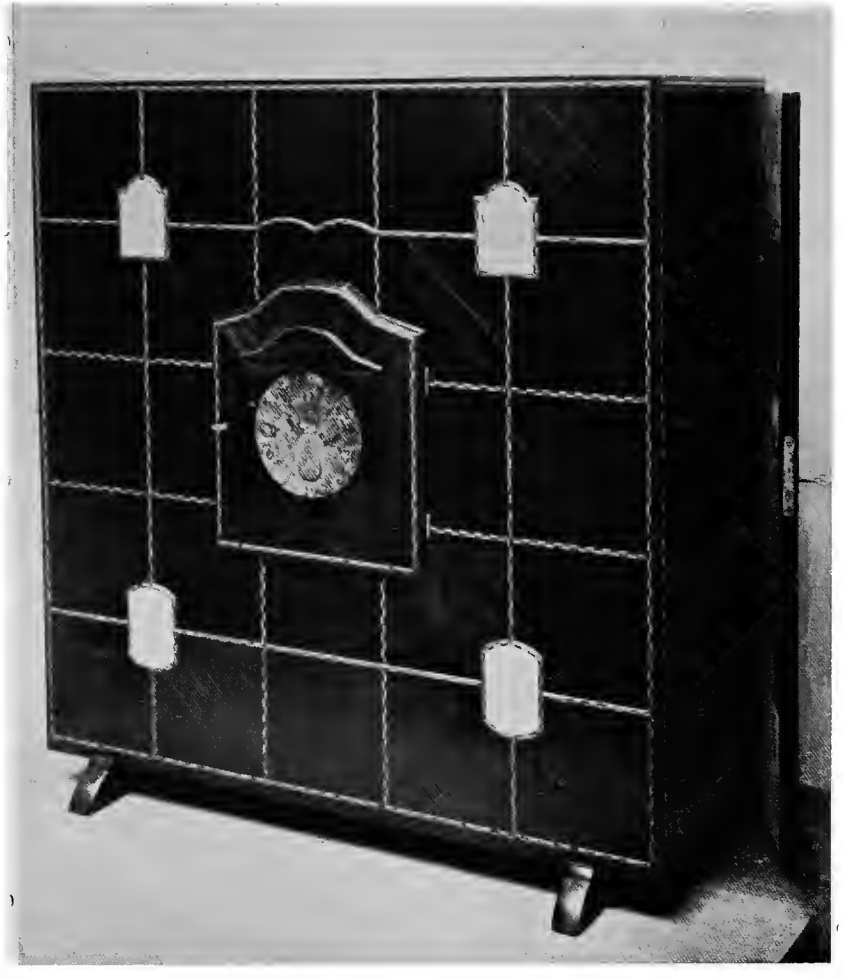
R. S. Lorimer, A.R.S.A., Architect

WALNUT WRITING CABINET WITH BRASS HANDLES. SIZE ABOUT 2 FT. 10 IN. BY 4 FT.

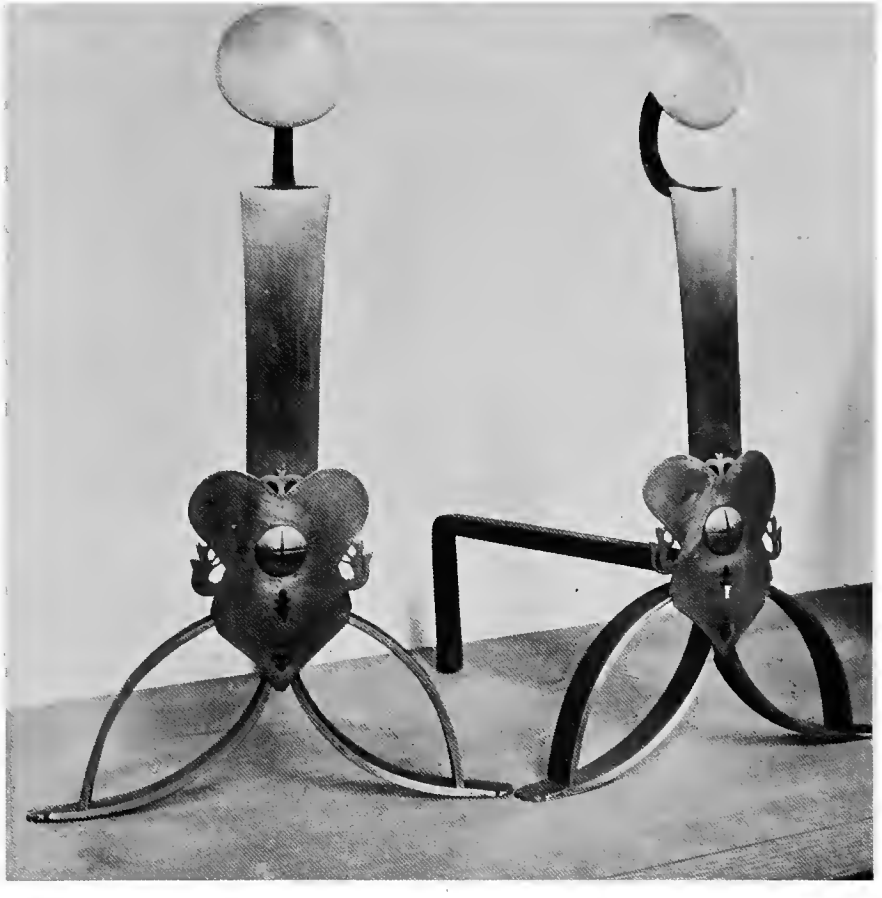


OAK CORNER CUPBOARD, 7 FT. HIGH, WITH INLAID LINES OF CHERRY AND EBONY

Ernest W. Gimson, Craftsman



EBONY LETTER CABINET, ENRICHED WITH INLAY



TWO FIREDOGS IN POLISHED WROUGHT IRON

Ernest W. Gimson, Craftsman

FITTED BEDROOM DESIGNED TO SHOW THE VALUE OF PLAIN AND SIMPLE SPACES. THE GENERAL COLOUR SCHEME IS ROSE AND WHITE. FOR PURPOSES OF ECONOMY PINE IS USED AND ENAMELLED WHITE. A STENCILLED FRIEZE IN PALE ROSE ON WHITE PLASTER. SMALL NOTES OF INLAY IN THE PANELS. THE DRESSING-TABLE IS PLACED IN THE CORNER OF THE WINDOW-BAY TO BE NEAR THE LIGHT WITHOUT OBSTRUCTING THE LIGHT

Ralph Henderson, Craftsman

A PAINTED DADO PANEL TO FORM PART OF THE DECORATION OF A "LEWIS CARROLL" SCHOOLROOM, IN WHICH A SERIES OF PANELS ARE FRAMED IN A DADO OF OAK 4 FT. 6 IN. FROM THE FLOOR LEVEL, AND THEREFORE ABOVE THE REACH OF CHILDREN'S HANDS

Designed by

Florence Laverock, Liverpool School of Art

STENCILLED NURSERY FRIEZE

CHILDREN AT PLAY

A National Silver Medal Design by

Roberta Glasgow, Liverpool School of Art

WRITING CABINET IN ENGLISH WALNUT

Sidney H. Barnsley, Craftsman

CABINET IN ENGLISH CEDAR WITH EBONY DOORS

Sidney H. Barnsley, Craftsman

WALNUT CHEST OF DRAWERS INLAID WITH EBONY AND CHERRY

Ernest W. Gimson, Craftsman

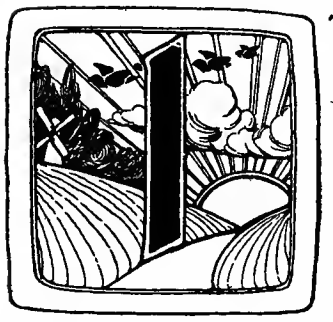
CARTOON FOR PART OF A HALL WINDOW IN STAINED GLASS

Designed by

Frank Brangwyn, A.R.A.

Some Decorative Essentials

By John Cash, Architect



IT is true to say that the hard-headed, matter-of-fact person is of opinion that there are no such things as decorative essentials. He regards it as a waste of time to attempt to beautify that which is primarily intended to be useful—useful, that is to say, in the ordinary sense of the word. For him the dull routine of existence is life, art the thin shadow of a misconception, and nothing counts unless it can be valued by some fixed standard of "the open market." Probably the truth lies nearer to the other extreme, and only that which cannot be weighed and measured is of real worth. The very meanest article of everyday household use may be so shaped that its value goes far beyond its first intention, ministering to a human need that calls not for service only but for society also. Just as the lover of books surrounds himself with permanent and steadfast friends, so the art lover also may find companionship in things whose appeal to another side of his nature is just as real and as true and worthy.

But, somehow or other, artistic adornment has come to be looked upon as quite separated from usefulness, something to be set up apart and isolated from utility, something to be placed in a convenient position where it may be looked at when there is nothing else to be done. The exact opposite should be the aim of all who set about the furnishing of a home. Look at the old-fashioned country kitchen—the really old-fashioned kitchen which has not yet been invaded by the stuffed furniture of ultra-respectability. In appearance it is charming because everything within it is part of the lives of its inhabitants, with a beauty that is honest, straightforward and simple. The high mantelshelf is not crowded with mere ornaments. Those brass candlesticks are there not because they are bright, they are

polished because they are to be used; that tea-caddy occupies the place of honour not in deference to its pedigree, but because its nearness to hearth and kettle means a saving of time and trouble; and the big broad dresser is laden with the crockery of everyday use not because a thousand points of light are reflected from its glazed and coloured surface, but because it must be near at hand. Everything for use, and that is reason enough for appropriate enrichment. Everything to endure without thought of next year's fashions, nor of the vagaries of modern manufacturers; and that is sufficient reason for good quality. Let us remember also that a beautiful and strong thoroughness in work is a sure test of a nation's greatness.

How far we have got from this idea may be seen in the majority of modern homes, where things are prized because they are merely useful or because they are merely ornamental. No two of the haphazard lot are related, and for the greater part they are quite foreign to the lives of beings whom fate has brought into such incongruous companionship. And two reasons of this may be found in the multitude of machine-made products and a restless desire for vain display. Yet, in spite of the almost convincing logic of the pessimist, in whose view even despair is beside the question (since nothing matters), the outlook becomes brighter, and many a week-end cottage indicates progress in the truer application of art to the home. How charming a small country house may be, how consistent with its purpose and internally harmonious, owing nothing to the merely accumulative propensities of the collector, but everything to fall in with the owner's desire for repose and for freedom from conventionalities!

in repose, giving no impression of movement, and the colours neither many nor glaring. If when we enter a room the walls demand first attention, we may be sure that something is wrong. Yet there are wall-papers and other hangings made with the richest of colour-effects without having that garish self-assertiveness which must always destroy the unity of purpose in any scheme of decoration. With a self-coloured paper or canvas the possibility of mistake is reduced to a minimum, while in the choice of a patterned paper the chance of error is increased by the number of tints and the scale of the design. It is never easy to select such papers from a small pattern book and to be certain of the result when the walls are covered. There may be faulty lines or disagreeable patches of colour, and these things, when seen in the mass, may form a pattern not accounted for in the sample book.

Manufacturers now publish diagrams of some of their designs which show, on a small scale, two or more widths together; in this way the pattern is clearly seen. Although these diagrams are generally in black and white, they are helpful to some extent if studied side by side with a small piece of the actual coloured paper. Of late years both the design and the colouring of wall-papers have been improved, and only care is needed in the choice to find what is required amongst the thousands of examples offered; but even the best will fail to satisfy if the selection is made apart from the consideration of its effect on the whole furnishing of the room. The aim must be unity and balance, a total effect in which all parts must be in proper relation, and each part, however important, subordinate to the whole. It is a blunder to suppose that any wall-paper, however fine in itself, will absorb the defects and harmonize the differences in ill-assorted or ugly furniture; and it is just as great a mistake to suppose that good furniture and pictures, and all the other essentials of a room, will look their best in spite of the colour of the walls. If the fittings be heavy of form and of dark colour, then the walls must be of sober hue, rich but subdued in colour, no glare anywhere, but studied effects of

light here and there from some piece of polished metal or pale statuette, or from some silvered glass in heavy gilt or dark wood frame. To describe such a room is to arouse all the antagonism of the modern hygienist; to live in it is to feel at home, especially when the day is done and the shaded light of lamp or candles illuminates a well-set and well-garnished table, with the shining silver and the shimmering glass and potters' ware. Sometimes the strong light of day is too oppressive and ill fits the moment's humour; then why not a room in which at such times one can find rest? But we are more modern in spirit, and the keynotes must be lightness and brightness. This we seek in the open or as near to it as the circumstances and big windows will permit. We ask for rosy tints and elegance of form, cheerful surroundings befitting and begetting a lightsome mood, furniture which can be moved without undue exertion, chairs which invite, and all other things in keeping. But in all a true alliance of beauty and purpose.

And these things cannot be beautiful if enriched with any ornament that conflicts with their construction, or with any colour inappropriate to their use, like those tints put into wine glasses to delight the Philistines in art, who forget that the transparent beauty of glass needs but the colouring of wines and of other liquids.

Table glass, if coloured at all, should be of the palest possible tints; but why not have trust in the pure crystalline quality of the glass, leaving the decoration a matter wholly of shape and surface? When properly wrought, the material gives full value for all the care bestowed upon it both in delicacy of tone and in elegance of form. Excellent examples were published in *The British Home of To-day*, admirably illustrating the possibilities of glass by several different methods of treatment, some modern, some old and very beautiful even as shown by photography, which unfortunately fails to render all the subtle grace of this delightful branch of art, and yet gives enough of its beauty to make one for ever renounce the crude reds and blues and greens of so many tables.

Some Decorative Essentials

Pottery, in its relation to the ordinary articles of table use, is no less interesting than glass from the decorative point of view, and it is difficult to understand why it should have been so neglected by the artist. Is there any real need for that appallingly exact machine-made finish? Is it more useful or better in any way for its hard unsympathetic glaze, and its awful precision of shape and surface? There may be manufacturers' reasons, commercial reasons, but not utilitarian or artistic. Or is it that mere crockery is too commonplace for the living-room, and therefore must be banished in disgrace to the kitchen and the cupboard? But the reason hardly concerns us; what matters is that there shall be a growing desire for improvement and that our artist potters shall give more attention to cups and saucers. What a wide and good field for his best efforts! Let him put aside for a time those pretty pieces of showcase ware, those vases and little knick-knacks of the collector, and let him strive to make useful things more beautiful. The be-all and end-all of skilled work cannot be mere ornament. The first purpose of a vessel turned upon the wheel is to hold something, to be of use in some practical way and not be at variance with beauty. Far too much artistic work is done for the collector, far too little for the ordinary mortal who would have the things he uses made more interesting. Nor need this mean that the potter is for all time restricted to the adornment of table-ware. While the sculptor works in marble or in metal, the potter may suitably model his own plastic material into bas-reliefs and statuettes with the additional and appropriate charm of colour and glaze, using modern subjects in a modern manner, free from the restraining influence of dead hands, that thwarts so much that is noble in the aspirations of the living.

The renaissance of Needlework is a welcome sign if but that it is once more a comprehensive field for woman's work. At many of our recent exhibitions beautiful examples of embroidery and other products of deft fingers and able designers have shown a remarkably high standard of excellence. It is indeed a forward movement from the crazy-quilts of our grand-

mothers, and the wool-work of a later day, to the modern use of fabric and of needle and thread. The materials, with all their limitations, so readily lend themselves to the simplest effects of geometrical combination or to the most elaborate maze of design ; they justify a freedom of treatment in natural forms that does not aim at pictorial representation ; and they are often at ease even within the restraints of conventional designs.

Stained glass is a very comprehensive title to most people, if not to the glass stainer himself. It ranges from the flattest and most uninteresting of tinted squares to the largest and most elaborate of cathedral windows ; all are mistakenly classed under the same heading. Unfortunately it is a subject difficult of illustration by any known process. Mere black and white is quite inadequate, and even with colour-printing both scale and transparency are lost, and transparency is perhaps its most essential quality. The play of light within the thick glass and the varied richness of the colour effects are in themselves delightful, but when framed in a suitable fretwork of thick lead lines, designed by one who understands his craft, stained glass is a decorative essential of the highest order—useful enough too, for it may shut out a distasteful view and its beauty be still an attraction.

The Mirror is another decorative essential which has been much misunderstood and misused. It had its vogue at a time when the making of huge sheets of plate glass became possible owing to improved methods of manufacture. Some of the old mirrors are excellent and beyond praise ; they are much sought after for their decorative effect. Without going back or slavishly copying we may take up the idea and clothe it in modern artistic shape. But the glass must not be large, a great flat surface in which is reflected a large portion of a room must be unrestful and offensive. Such a glass is well enough for toilet purposes, of course, but its decorative value decreases when frame and mirror are not suitably proportioned one to the other. Frames may be either of wood, gilded, polished, or painted, or else of metal ; simple or elaborate as best befits the purpose of the mirror.

Some Decorative Essentials

Metalwork demands a few words, but its many uses in the home are well known, and its decorative possibilities not likely to be overlooked. Silver and copper and iron all lend themselves readily to any process of hammering, whilst brass and lead may be cast and otherwise manipulated. So wide in range is the usefulness of metal, and so adaptable, that in one kind or another it takes a fitting shape to any scale from the great gates and grilles of iron down to the tiniest bit of gold or silver ornament. With enamel lending its glorious effects of colour, metal must be a source of endless joy to the skilled craftsman and the connoisseur.

Sculpture, too, both great and small, from the public monument to the little statuette, is now receiving a fair amount of attention, although still suffering undeserved neglect. It may be that the worker himself has been too exclusive in his aims in preferring the heroic to the homely. What is wanted for the small home is small sculpture, a figure or group of figures representing some simple idea not too far-fetched, nor yet too classical. We are many of us somewhat tired of the eternal pagan and his myths. We long for that which comes nearer to hearth and home. Modern aspirations and ideals are worthy subjects, and the workers on sea and land have a story to tell fit for translation into stone or bronze. But it must be told in a brief chapter and to a scale suitable to our houses. Something has been done already in this direction, but there is room for more, and whenever the sculptor publishes his work in what may be called "limited editions," his public is ready. Among other things the leaden garden statue is admirable and its duplication easy. In this soft metal the refinements possible in bronze are out of the question, but lead is still worthy of the artist's best efforts. Many an old English garden has delightful examples of cast lead, quaint figures, fountains, tanks, urns, and a host of other applications of its decorative usefulness. And that it may be revived is a hope which is beginning to be realized by present-day craftsmen!

Garden furniture and decorative essentials include so many things in wood and in stone, in iron and lead and bronze,

that it is quite impossible here to deal with more than a few. How pleasantly attractive is a well-shaped, comfortable garden-seat, sturdy, of simple lines, and roomy enough to tempt the tired to rest awhile. In oak or in painted deal, in construction direct and with foreknowledge of its exposure to the weather, its proper artistic treatment follows as a matter of course, for its purpose is no less clearly defined than that of any piece of furniture inside the house, and that purpose will be kept in view in the whole process of its evolution. Lightness and elegance in the dwelling-rooms if you will, but strength and stern simplicity in the garden. Another feature of garden architecture—the open trellis of painted wood—scarce receives the attention which its decorative merits deserve. Its possibilities are greater than the simple nature of its materials suggests, and although it is occasionally adopted where a division is required, there are many occasions when something quite inferior from a decorative point of view is used instead. The real charm of a garden is not ended when the gardener has finished his task; to get it in full the grounds must be linked up to the house by the handiwork of the artist and the craftsman, the whole in one embracing scheme, one purpose shown throughout, and every detail falling into place in the total effect and none striving for mastery.

JOHN CASH

DÆDALUS AND ICARUS STATUETTE IN BRONZE
FROM A COPYRIGHT PHOTOGRAPH
F. Derwent Wood, Sculptor

LAMIA—IN IVORY AND BRONZE, NOW IN THE COLLECTION OF WILLIAM VIVIAN, ESQ.
THE PHOTOGRAPH BY AUGUSTUS LITTLETON, ESQ.
George Frampton, R.A., Sculptor

MATERNITY THE PHOTOGRAPH BY AUGUSTUS LITTLETON, ESQ. MARBLE STATUETTE

George Frampton, R.A., Sculptor

LOVE'S CORONET. A STATUETTE IN BRONZE AND OXIDIZED SILVER WITH PEARL INLAY. THE PEDESTAL IN GREEN AND BLACK MARBLE WITH WHITE METALWORK. NOW IN THE COLLECTION OF SIR ALEXANDER HENDERSON

W. Reynolds-Stephens, Sculptor

FATE — STATUETTE

Gilbert Bayes, Sculptor

BRACKET FOR ELECTRIC LIGHT IN BRONZE AND MOTHER-OF-PEARL

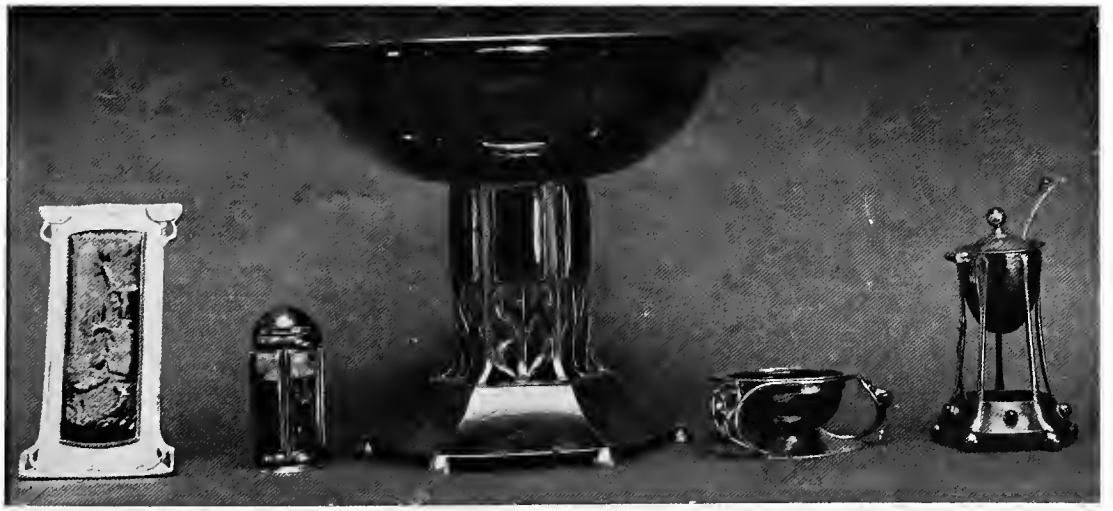
Alexander Fisher, Sculptor

A BRONZE MIRROR WITH A METAL REFLECTOR.

Alexander Fisher, Sculptor.

JAM DISH IN SILVER — FROM A PHOTOGRAPH

Designed by C. R. Ashbee
Executed by the Guild of Handicraft



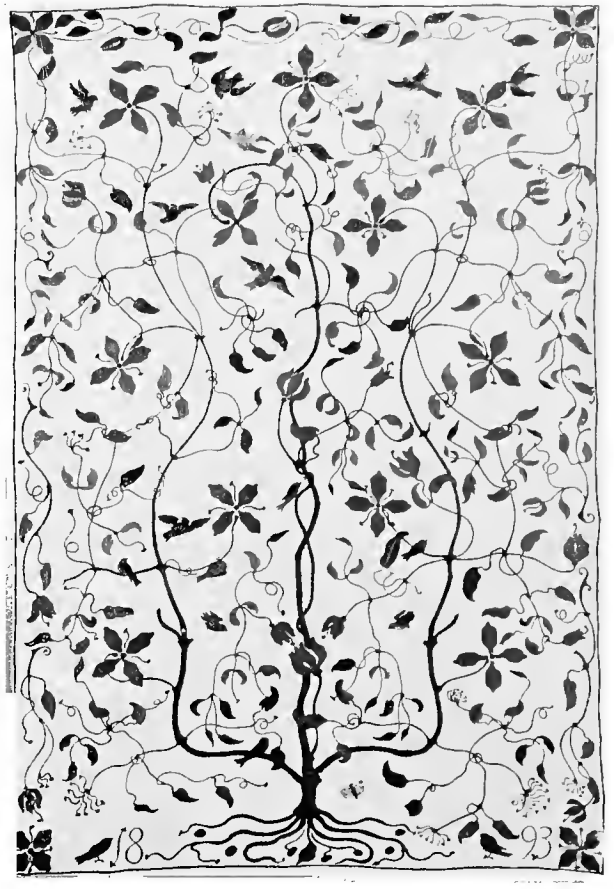
SILVER WORK — FROM A PHOTOGRAPH

Designed by W. A. White
Executed by J. Baily and E. Toy, the Enamels by F. C. Varley
MEMBERS OF THE GUILD OF HANDICRAFT

BEDCOVER RICHLY EMBROIDERED IN COLOURED WOOLS BY MRS. MACKENZIE, OF EARLSHALL

Designed by

R. S. Lorimer, A.R.S.A., Architect

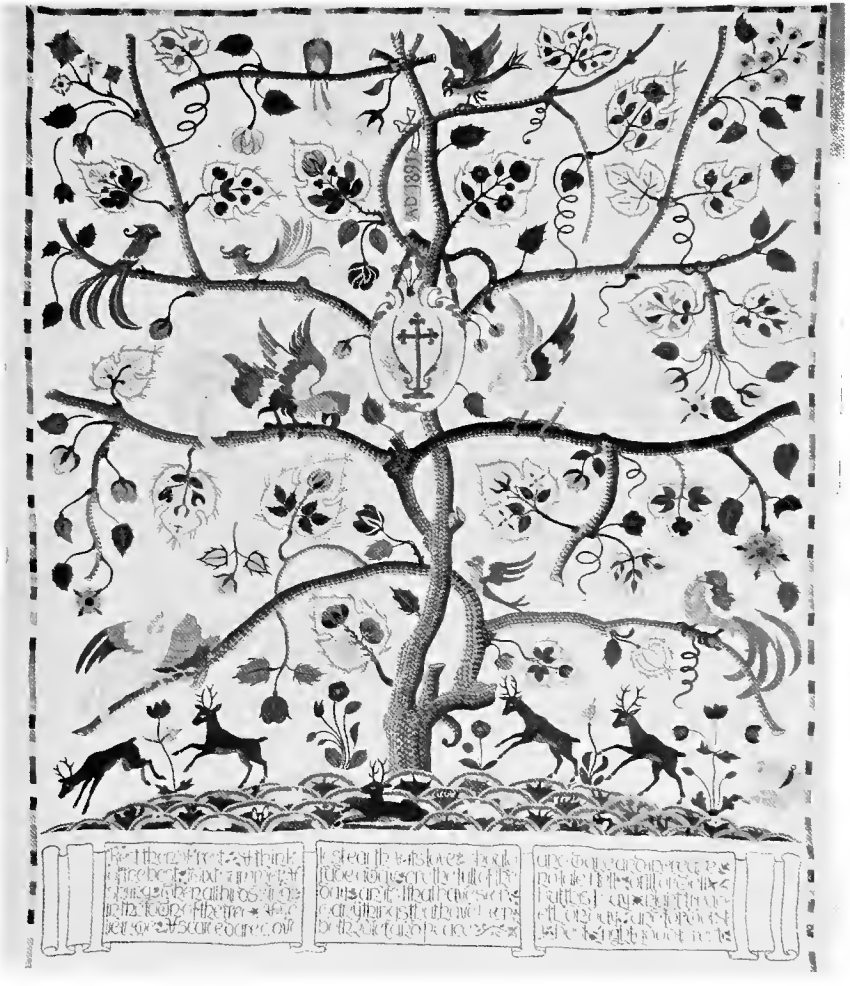


BEDCOVER EMBROIDERED IN COLOURED WOOLS BY MRS. SKINNER

Designed by

R. S. Lorimer, A.R.S.A., Architect

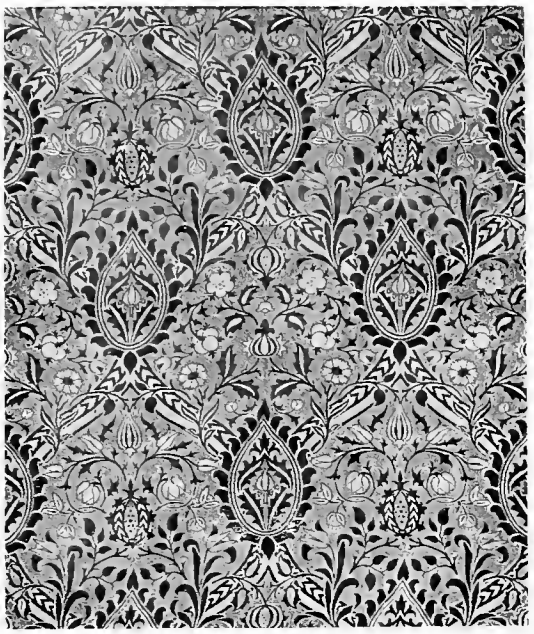
BEDCOVER EMBROIDERED IN COLOURED WOOLS AND SILKS BY MISS. LORIMER



BEDCOVER RICHLY EMBROIDERED IN COLOURED WOOLS BY MRS. SKINNER

Designed by

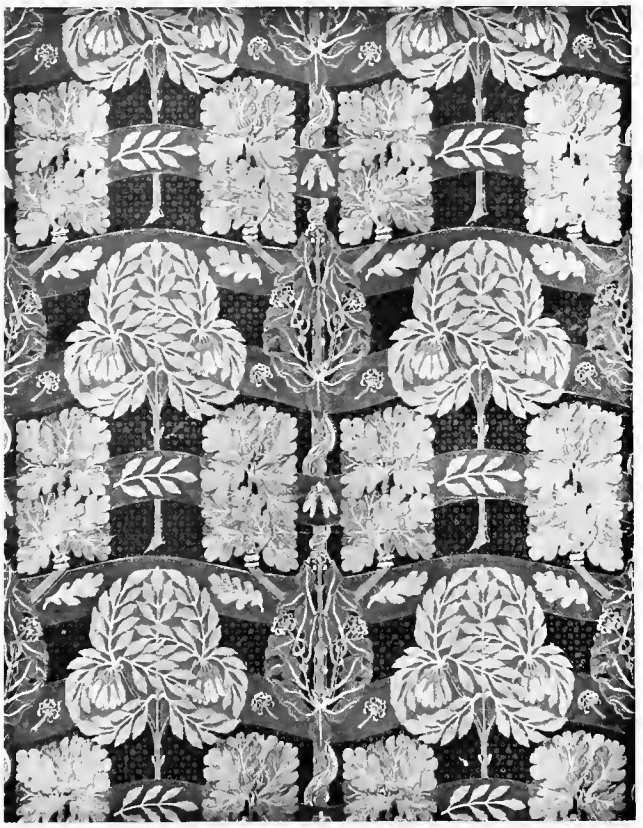
R. S. Lorimer, A.R.S.A., Architect



SILK BROCATEL. THE "PERSIAN" DESIGN. BY PERMISSION OF MESSRS. MORRIS & CO.

Designed by

The Late William Morris



THE "OAK AND ASH" WALL-PAPER, MADE BY JEFFREY & CO.

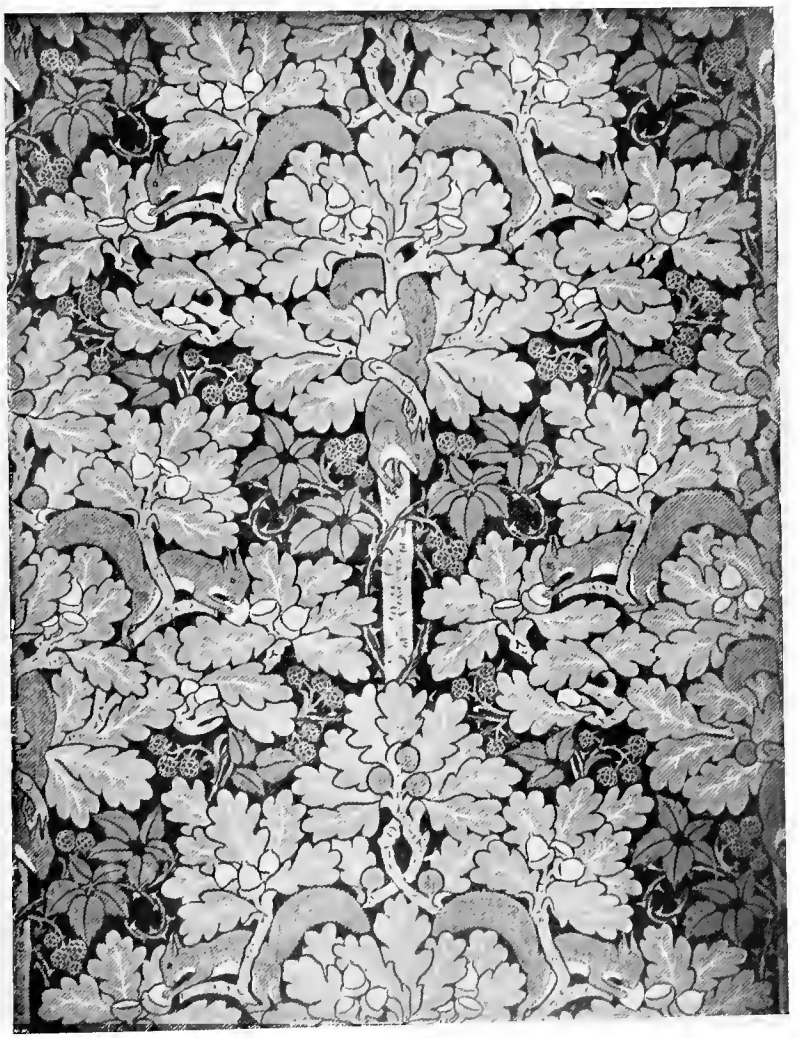
Designed by

Heywood Sumner

PRINTED COTTON, THE TULIP PATTERN, MADE BY MORRIS & CO.

Designed by

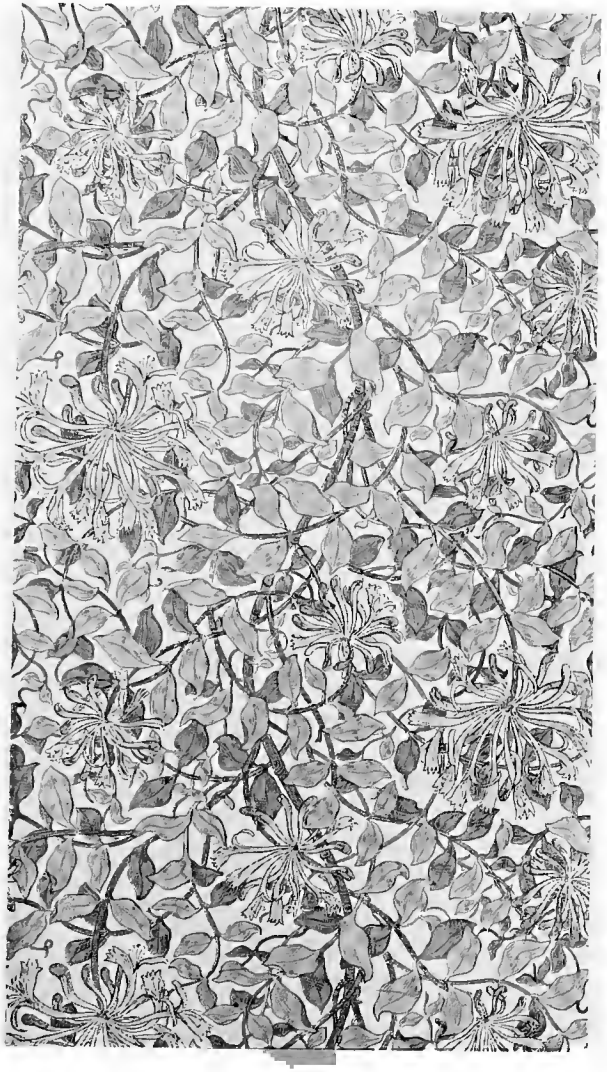
The Late William Morris



THE WOODLANDERS WALL-PAPER, MADE BY MESSRS. JEFFREY & CO., LONDON

Designed by

Heywood Sumner



THE HONEYSUCKLE WALL-PAPER. BY PERMISSION OF MESSRS. MORRIS & COMPANY

Designed by

Miss May Morris

THE TROCADERO WALL-PAPER. BY PERMISSION OF MESSRS. JEFFREY & CO.

Designed by

Lewis F. Day

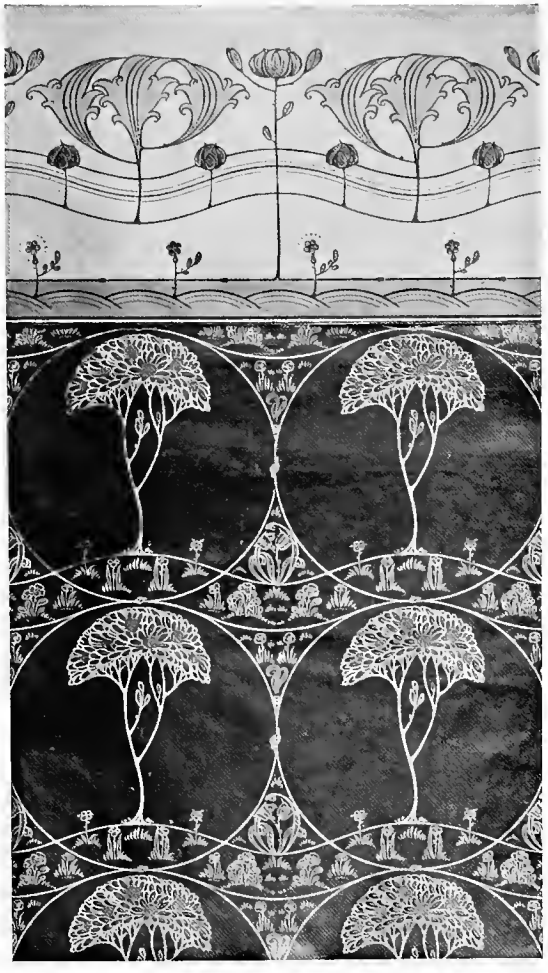
THE WILLOW BOUGH WALL-PAPER. BY PERMISSION OF MESSRS. MORRIS & COMPANY

Designed by

The Late William Morris

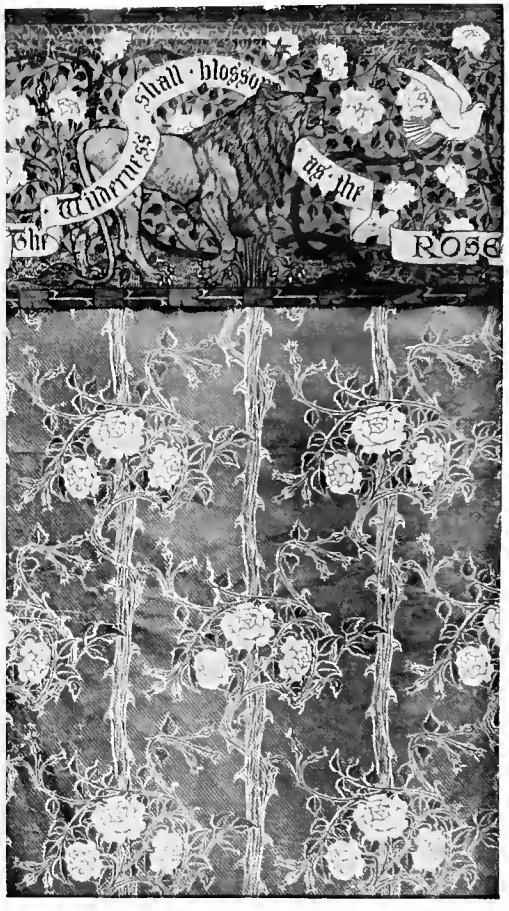
THE ORANGE TREE WALL-PAPER AND FRUIT FRIEZE
JEFFREY & CO., MANUFACTURERS

Designed by
Walter Crane



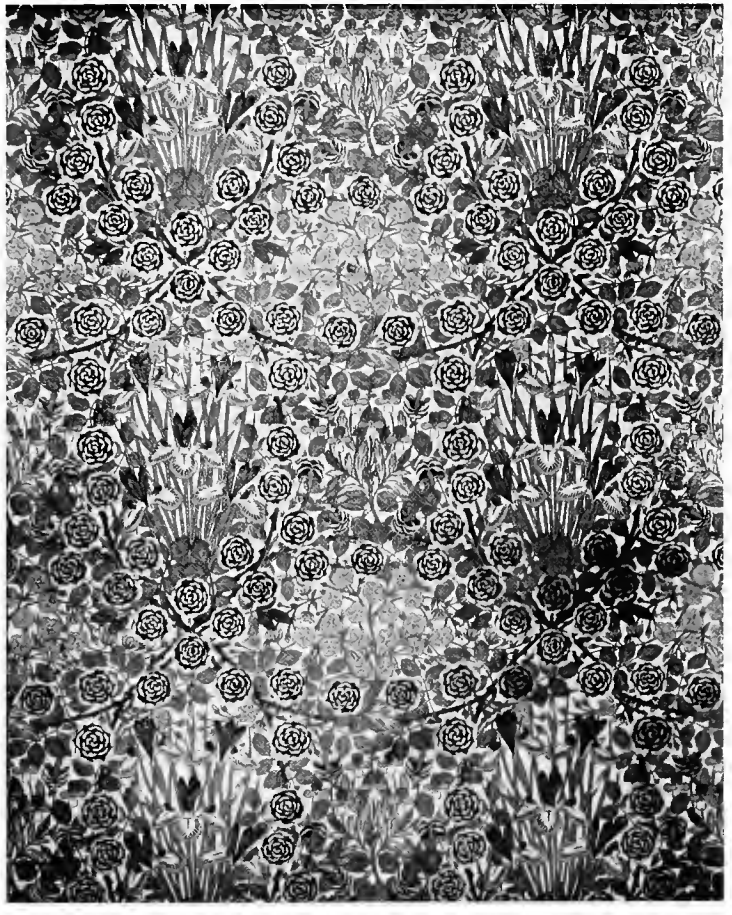
THE "ORCHARD" WALL DECORATION. REPRODUCED
BY PERMISSION OF MESSRS. JEFFREY & CO.

Designed by
W. J. Neatby

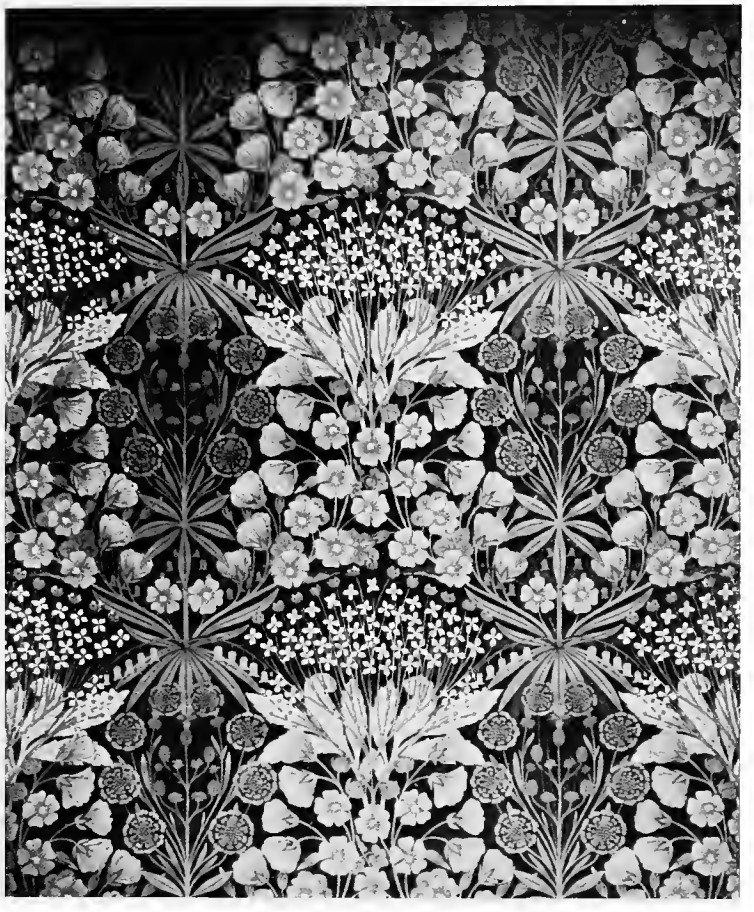


THE LION FRIEZE AND ROSE BUSH WALL
PAPER. JEFFREY & CO., MANUFACTURERS

Designed by
Walter Crane



THE CAMPANULA WALL-PAPER MADE BY JEFFREY & CO., LONDON



THE MALLOW WALL-PAPER MADE BY JEFFREY & CO., LONDON

Designed by
Allan F. Vigers, Architect

THE MEADOW WALL-PAPER WITH THE MAY TREE FRIEZE. MESSRS. JEFFREY & CO., MANUFACTURERS.

DESIGNED BY

Walter Crane, Decorative Artist.

FRIEZE EMBOSSED IN COPPER

JEFFREY & CO., MANUFACTURERS

Designed by
Stephen Webb

SKETCH MODEL FOR A DINING-ROOM MANTELPIECE IN MARBLE FOR HENRY PHIPPS, ESQ., NEW YORK, U.S.A

George A. Cranley, Architect
F. Derwent Wood, Sculptor

Some Decorative Essentials

GARDEN SEAT IN OAK

Designed by
Edwin L. Lutyens, Architect

GARDEN SEAT IN OAK

Designed by
Edwin L. Lutyens, Architect

Sanitation

By John Cash, Architect

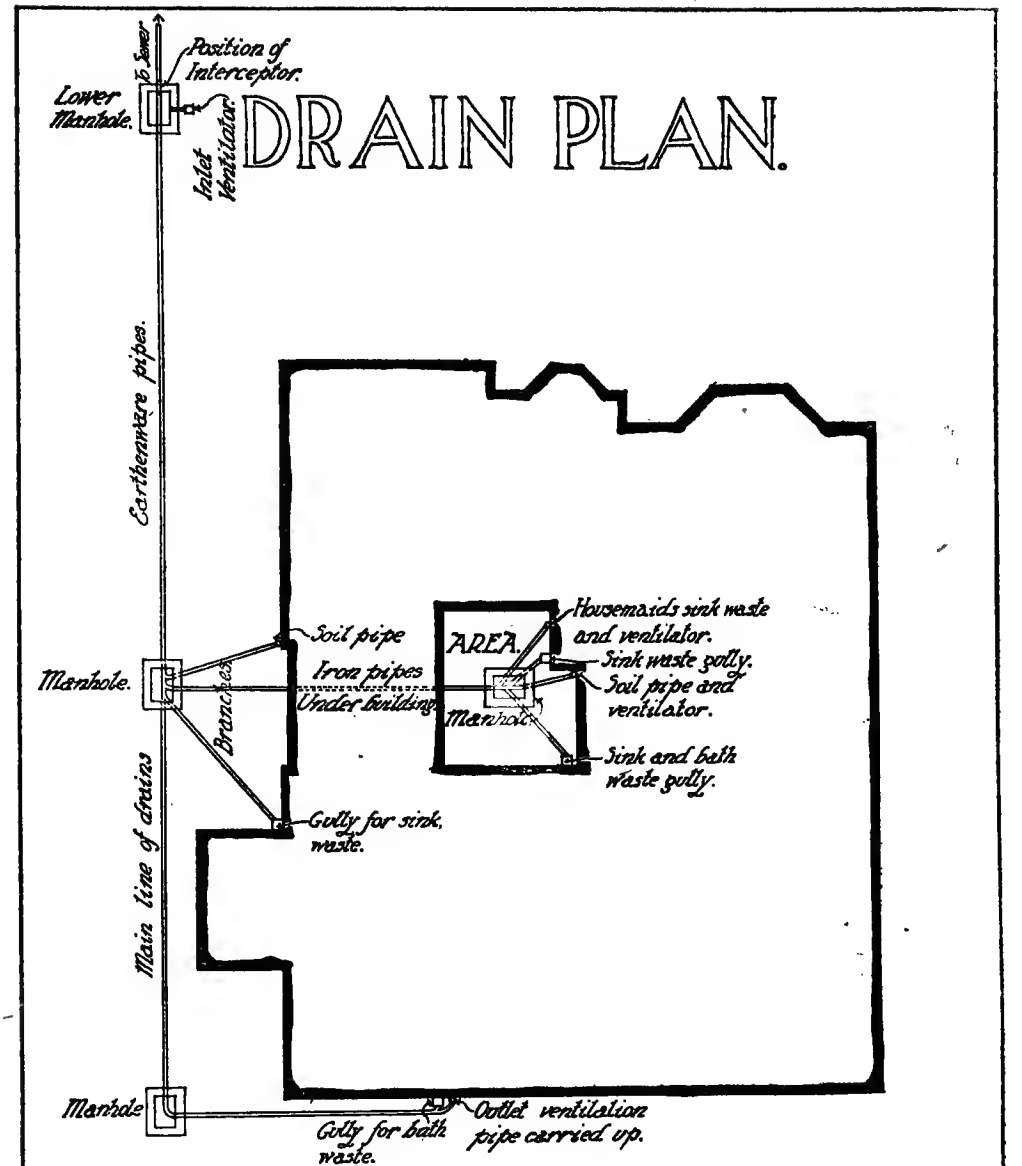
HE purpose of these notes is to give a few general hints upon a subject which of late years has come very much to the fore, although it is perhaps the least attractive department of house building. Books about drainage are for the most part of a highly technical kind, written by men who have made a special study of theory for others who are engaged in the practical working out of definite schemes. The abstract principles of the science are simple and easily understood, and the details many and complicated, but not beyond the understanding of ordinary common-sense. A little knowledge of drains may be dangerous, but that little, properly used, is better than none. At all events it is well that the person who intends building should be able to give such general instructions with reference to drainage and sanitary fittings as shall tend to prevent misunderstandings and consequent cost and disappointment.

The vast amount of information on the decorative treatment of the home published and read during the past few years seems to indicate a demand for a more intimate knowledge of the whole question of house building, and the mystery of sanitary science is not so great that even the most timid mind need shrink from it. A few leading principles to be learnt and some intelligent observation of facts will sufficiently equip the layman with such general knowledge as he is ever likely to be in a position to employ.

Let us consider in a few general terms the methods of the disposal of sewage matter after it has been carried from the house through underground pipes. There is the old-fashioned cesspool; then its modern development, the highly scientific bacteriological treatment, with its anaërobic and aërobic variations;

and last the public sewer, which, to dwellers in town at least, is the best-known of the three. We need consider only the first two, for the third, the public sewer, gives the householder no further concern after the drains of his home have been connected with it, except, of course, the periodical call of the rate collector. It should be pointed out that this is the cheaper and better method; but unfortunately in rural districts it is not always available, and many small homes must still be built where there is no public sewer. The bacteriological treatment is not likely to be employed, except in connection with larger houses, because of its first cost, even should the site be of sufficient area to make it possible in other respects. But for houses costing two thousand pounds or more, where the site is of sufficient area to allow of the apparatus being placed far enough away from the buildings, and where the land slopes in the right direction, this method has many advantages over the cesspool. Should the ground be nearly level it will be found almost impracticable, and should the site be so small that the tanks cannot be placed at least thirty or forty yards from the house, the result may be offensive to the nostrils and injurious to health. If it is decided to adopt the bacteriological system it must be borne in mind that there are royalties to be paid unless the patentees are employed to carry out the work. There are two distinct methods of bacteriological treatment, but a few words of general description will serve to indicate the principle. Tanks of brick or concrete are built in a convenient position—on a hill side is best. The crude sewage is carried by the drain to these tanks where it is attacked by the bacteria, the solids being decomposed into liquid and the whole subjected to a treatment of filtration through broken coke or other suitable material. According to the degree of purity required in the effluent the filtering tanks will be increased in number. Two at least are necessary, and more will be an advantage, for the bacteria, although at work in the filters all the time, can deal with only a limited amount of matter. It is also important that the filters should work alternately, one being at rest while the other is in use. Once set in motion the system is practically auto-

Sanitation



NOTE. to avoid confusion the rain water drains are not shown. In actual work they might be taken into the manholes indicated or into a separate system as required by the Local authorities.

JOHN CASH, ARCHITECT.

matic, beyond the need for a periodical change of the filtering materials. The ultimate disposal of the effluent will depend entirely on local circumstances. It may be possible to spread it over the land or to discharge it into a brook, but this difficulty is one which will arise with any system except that of the public sewer.

The cesspool is the old-fashioned way of attacking the sewage problem. In the past, before the days of many baths, it was good enough in most cases, and was then built underground of rough brick or stonework, oftener than not with no cementing material in the joints, and without any bottom other than the natural earth, so that in loose soil the water ran away quite freely, and generally into the wells of the neighbourhood, leaving only the solid matter behind in the cesspool to be dealt with by the microbes. It was quite possible for the cesspool, although never emptied, to continue to do its work, and this fact mystified our forefathers, but gave to the modern sanitary expert the clue to the bacteriological treatment. To-day, even had we no respect for the purity of our wells, the local authorities insist upon the cesspool being made quite watertight. It must have a lining of some impervious material such as asphalt or Portland cement, and now the local Bye-Laws prohibit the taking of the overflow pipe into any public watercourse ; it therefore follows that the cesspool will require to be emptied oftener in proportion to the amount of water discharged into it. In some places the clearing out of the cesspool is undertaken by the local authority, but in other localities it devolves upon the owner to do the best he can by making a payment to an outsider or by employing his gardener to do the work. Whichever of the three systems of disposal is adopted, the remainder of the sanitary work will be the same.

At the outset it must be remembered that the best designed scheme will be spoiled if bad materials and inferior workmanship are employed ; the best of both must be insisted upon, and can be obtained if their price be paid. Workmen, with few exceptions, prefer to do good work ; and, with fewer exceptions, they will not do it for bad pay. If there must be

Sanitation

any cutting down of cost, let it be exercised where defects will be under observation and where repairs will not be so costly.

Sanitarians are now all agreed upon the two leading principles; first, the greatest possible amount of ventilation in order that there may be the least possible accumulation of foul air in the pipes; and second, the exclusion of drain air or sewer gas from the house. Ventilation is secured by having not less than two untrapped openings to every line of pipes, whether above or below ground, except to very short branches; and sewer gas and foul air are excluded by means of "traps." A trap is simply a bend or dip in the pipe, formed in such a way that enough water is retained by it to fill up the bore of the pipe and so prevent the passage of air under ordinary pressure; but in case of insufficient ventilation sewer gas will accumulate and force its way through the water. In fact traps are only a second line of defence and not a substitute for thorough aeration. When these two principles—ventilation and trapping—are understood the theory of sanitation, so far as it concerns the average man, is robbed of its mystery; the rest is to put principles into practice in the most convenient way. In this there are of course many difficulties of detail, but a knowledge of reasons will give zest to the practical working out of theory. It follows quite naturally that the lines of pipes must be straight to get the most efficient ventilation; therefore, when a change of direction must be made sharp angles should be avoided. When this is attended to there will also be less fear of stoppage. Where traps are used they must be as close to the internal fittings as possible, so that there shall be but little open pipe within the house. The pipes for underground drains may be either of earthenware or of iron. If of earthenware, they must be glazed both inside and outside, and if of iron, treated with Dr. Angus Smith's process for the prevention of rust. Iron pipes are now being largely used in the better class of work for all underground drains, and wherever the drain passes under the house iron pipes should be insisted upon, for they are less likely to break and the joints are stronger, these being filled with molten lead which is hammered hard when cold.

The Modern Home

Earthenware pipes are usually in lengths of two feet, and the joints—in the ordinary kind—are filled with Portland cement. They should always be laid on a bed of cement concrete, six inches thick at least, and where near the surface of the ground, or under buildings, if they must be used there, they should be encased in concrete six inches thick all round. Earthenware pipes are very carefully made by the leading manufacturers, with a true bore and perfectly straight. At slight extra cost they may be obtained marked "tested," which is a guarantee by the makers that every pipe has been subjected to a much greater strain than it will be called upon to bear in ordinary use. Earthenware pipes are now manufactured with a great variety of patent joints; in some the ends are lined where they fit into each other with a kind of asphalt, and when in position in the trench, the joints are made watertight by means of a specially prepared solution. These are more flexible than cemented joints and less liable to snap through any slight sinking of the ground.

Underground pipes are laid with a downward inclination towards the cesspool or sewer, and this inclination, called "the fall," can hardly be too great if it is regular throughout its length. In no case should the fall be less than one foot in each forty feet of the length of the pipes. Where the ground slopes naturally in the direction of the outfall the trench need not be deep, and this is a matter of some importance in the case of a cesspool being used, both because of first cost and of increased pumping.

Manholes must be built at convenient points, to render easy the work of inspection, cleaning and testing. The bottom of each manhole should be formed with concrete at the same time that the concrete is put into the trench to receive the pipes. Instead of complete pipes being taken through these manholes, half-pipes, or channels as they are called, will be laid on the concrete bottom, one running through to take the main line of drain, and others of curved shape joining it to connect the branch drains. When laid correctly the channels will be

held in position by having cement concrete packed into the spaces between, and this concrete will be banked up higher than the sides of the channels and sloped towards them so that in case of temporary overflow from the channels they shall not retain any solid matter. From one manhole to another the line of drain pipes must be perfectly straight, so that in the event of stoppage a rod may be pushed through to clear away the obstruction. All the manholes will be alike in most respects, the walls being of brickwork lined with cement made quite smooth, and the top covered with an iron lid at the surface of the ground. But the manhole nearest to the public sewer or cesspool differs in some respects. In order that sewer gas may not enter the drains, a trap commonly known as a "Disconnector" is placed between the channel in the manhole and the drain outside. This disconnector is an old institution—as age is counted in sanitary science—but there are ardent reformers who would deprive it of its honoured position and rob it of an acquired reputation, telling us that its pretentions are greater than its usefulness, and that the good it might accomplish in rare intervals of working order is much less than the evil it actually does. Without taking sides with either the advocates of "Disconnectors" or their opponents in this keen dispute, it must be admitted that a very large percentage of the stoppages in drains is at this point. Also it should be remembered that officialism is for the present overwhelmingly with the "Disconnectors"; local bye-laws for the most part making it necessary. There can be no doubt that, if the cesspool or the public sewer be properly ventilated, as it should be, this trap might be omitted with advantage, but until the time comes when the Bye-Laws will allow its omission all that can be done is to select a trap which shall have the least number of faults. If it does sometimes cause a stoppage, it also keeps back the noxious gases by way of compensation.

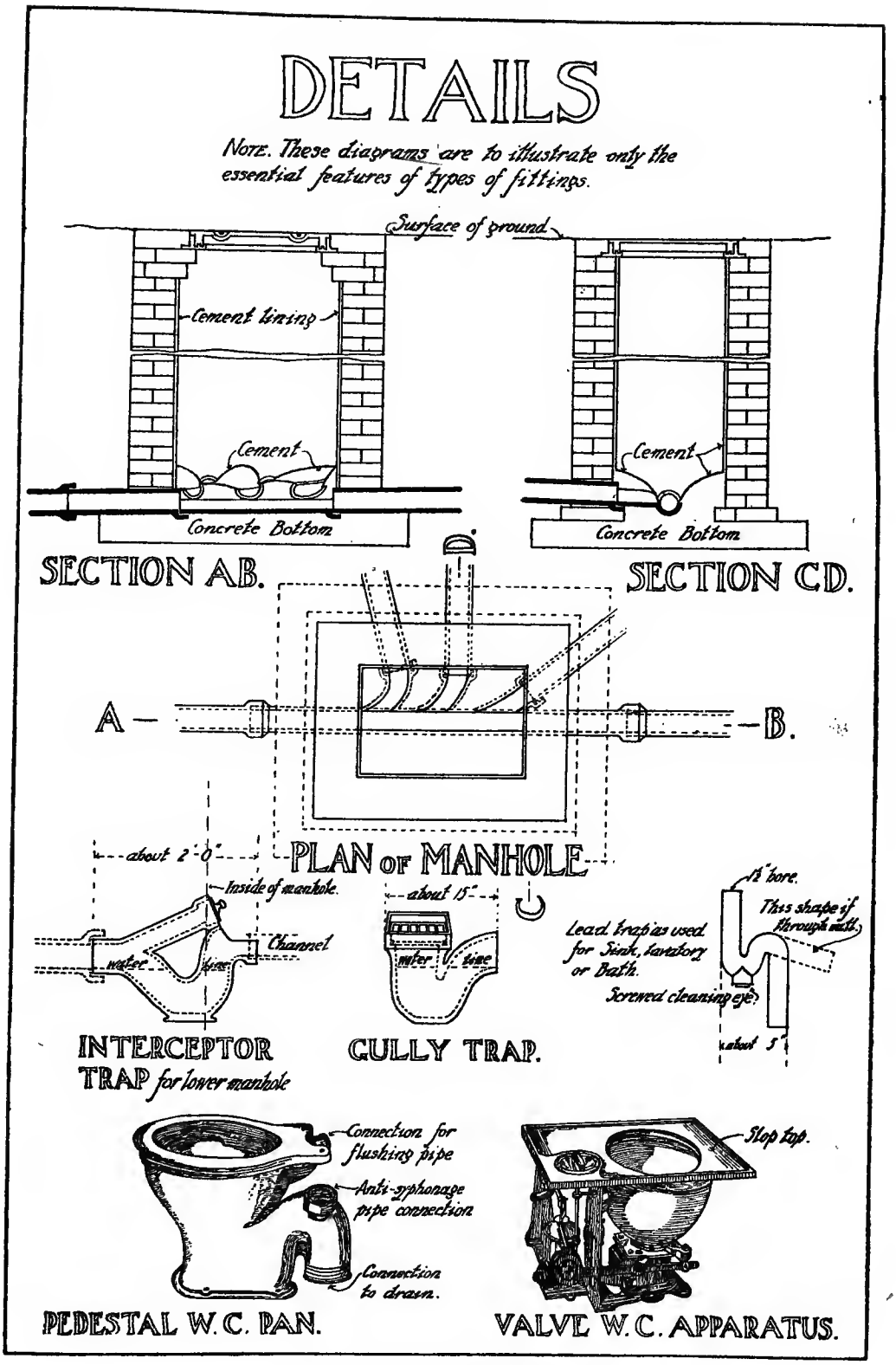
The manhole in question will also be the place for the admission of fresh air for the ventilation of the drains. If it is well away from the house, in a place where an occasional puff of foul air does not matter, an iron grid raised a few inches

above the ground surface will suffice. But should the inlet be necessarily near the house, an upright galvanized iron pipe about two or three feet high should be used, and on the top of this pipe there should be a head fitted with a grating and mica flap to act as a valve to prevent outward puffs of foul air. This iron pipe should be at least 4 inches in diameter, fixed to a wall or fence, and connected to an underground pipe of earthenware or iron, as the case may be, entering the manhole through one of its sides and also near the top.

In a large system of drains there may be many manholes, but in the smallest system there should be at least two, the one just described, and another at the head of the drain or at some point convenient for taking in the branches—as near the head of the drain as possible—and in such a position that a rod can be pushed through the pipes from it to the end. Should there be need for an intermediate manhole, it should be placed conveniently for taking in branches to avoid the joining of pipes to pipes where the junction cannot be got at. In the best plan all junctions will be in manholes. Where the drain has to be taken round a corner a manhole must be built at the corner, even if there are no branches, to facilitate clearing should there be a stoppage.

The manner in which fresh air is admitted to the drains has already been described in connexion with the lower manhole. But without means of extract the inlet pipe would be of very little use, therefore an outlet must be provided at the upper end of the underground drains. Should there be a W.C. above the ground at this point, the soil pipe from it will serve the double purpose of conveying the discharge from the closet and extracting air from the drains. It should be of lead or of strong cast-iron, with a bore of three and a half or four inches, connected with the underground drains at the bottom and carried upwards above the eaves of the roof and higher than any window near it. Perhaps the best place to terminate the soil pipe is on a chimney stack and about two feet below the top of the flues, for if taken quite up to the chimney pots foul air may be drawn

Sanitation



JOHN CASH, ARCHITECT

into the house when the fire is not going. The top of the soil pipe will be open, except for a spherical cover of copper wire to keep out birds and dead leaves. Should there be other upstairs water-closets or a housemaid's slop sink—which is always treated as a water-closet—between the higher and lower ends of the drain there must be another soil pipe, and it will be finished at the top in the same way to act as an additional extract ventilator. Should there be no upstairs water-closet at the head of the drains a pipe of the same kind must be provided to act as a ventilator. Therefore, however small the system of drains may be, there will be at least two untrapped openings, one for the admission of fresh air at the lower end, and one for the extraction of foul air at the higher end. Bye-Laws allow of the positions of inlet and outlet being reversed in some cases, but in practice this is rarely necessary.

All other openings into drains will be trapped at some point outside the house by means of gullies, the purpose of the trap being to prevent the escape of air from the drains at undesirable places.

When a good fall cannot be given to the underground drains, it is advisable to provide some means of sending through them at intervals a good rush of water to remove any solid matter left behind by the ordinary discharge. For this purpose a Flushing Tank should be fixed as near as possible to the head of the drains. This tank is filled either from a tap specially provided and adjusted to allow of a constant trickle of water, or from the waste water of a bath or other fitting. Its action is syphonic and automatic, so that when the water has reached a certain level within it the discharge takes place suddenly through a large pipe with a force great enough to clear away any ordinary obstruction. The tank should hold twenty or thirty gallons, and if filled with fresh water the tap should be so regulated that it will be filled at least twice a day. If the source of supply is a waste pipe the number of flushes will depend upon the quantity of water discharged down the waste.

The testing of underground drains is simple enough

in theory, for it only demands that when filled with water they shall retain it all until the stopper is removed. If the site is fairly level and the system of drains not very large, it may be possible to test the whole in one operation; in other cases it will probably be necessary to test in sections. The drain should be plugged where it enters the manhole at the lower end, or at some intermediate manhole if the testing has to be by sections; for this purpose a special stopper is used with metal disks and rubber ring. At some point above the stopper the section of drain under examination will be filled with water. Should there be branches running into the main line of this section, with trapped gullies at the ends, the air will be imprisoned in them between the rising water and the water in the gully, and they will not fill with water until the air has been given means of escape. There are two practical ways of letting out the air, either of which can be adopted; the water may be baled out of the gullies, which will then be "untrapped," or the air may be given another means of egress. The more usual of the two methods is to allow the air to escape at the gully through a piece of india-rubber pipe—old garden hose will do. This is forced by hand down the gully and up the bend of the trap so that one end stands quite clear of the water in the traps; the other end is then placed in the mouth of the labourer, who blows until the water, which has got into the hose in its passage through the trap, is expelled, when the air will escape and the water rise in the branch drain until it reaches the water in the gully trap. This operation must be repeated at all the gullies connected with that section of the drains which is being tested, but not until the water in the main line of drains is standing higher than the junction of the highest branch, otherwise a misunderstanding is quite possible. Ground-floor water-closets should be dealt with in the same way, but as they are generally at a higher level than the gullies a separate operation will be necessary.

Before leaving the question of underground drains it must be pointed out that in some cases a double line of pipes will be needed, one for dirty water and one for rain water. In

many districts with public sewers and a sewage-farm the Bye-Laws will not permit rain-water to be carried in the same pipe with sewage ; and where a cesspool is used it will be to the owner's advantage to provide a separate tank for rain-water, not merely that the water may be saved for use, but because otherwise more frequent emptying of the cesspool will become necessary. Also, in the case of bacteriological treatment the smaller the quantity of water running through the tanks the more efficient will be the working of the filters.

The fittings inside the house and the necessary waste and ventilation pipes may now be considered. Although in the small home the appliances are not numerous, there is a bewildering variety in the show-rooms of manufacturers to be viewed and selected from. Only a brief reference to general types can be here dealt with to indicate differences in principle. At the outset it should be noted that every internal fitting intended for the reception of dirty water must be trapped as close to the outlet from the fitting as is possible, so that there may be very little open pipe between the trap and the fitting itself.

Waste pipes from Baths, Lavatories and Sinks should never be less than one inch and a quarter bore, and long lengths of horizontal pipe should be avoided. All such waste pipes must discharge on to a trapped gully, or into one with an inlet below the grid, but above the water line. They must never be connected direct to the drain. In the best work these wastes are carried up above the eaves and away from windows in the same way as soil pipes and " anti-syphonage " pipes provided to all traps. The anti-syphonage pipe is for the admission of air to the waste pipe, so that the rush of water shall not cause a vacuum in the pipe which might result in the water being forced out of the trap. These pipes are usually of the same bore as the waste pipe ; they are connected to the upper section of the trap, the other end being on the outside of the house. If there are two water-closets to one soil pipe an anti-syphonage pipe of two-inch bore should be connected to the trap of the lower one at least, and it will be better at only a slight additional cost to connect

it with the upper one also. This should be carried above the eaves by the side of the soil pipe.

There is one general remark which applies to all internal sanitary fittings—they should be as simple as possible, no ornament of any kind is best, and certainly no ornament in relief; their utilitarian purpose and the need for cleanliness about them should always be kept in view. On sanitary grounds there can be no doubt that the type of water-closet pan known as "the pedestal" is to be preferred, the whole apparatus is in view, and there are no secret hiding places for filth. Owing to the method of flushing from a tank placed five or six feet above the floor, the apparatus has the disadvantage of being noisy, and in the small home this is often a serious drawback. Efforts have been made with some success to combine the advantages of the pedestal type with a more silent action by placing the flushing tank close down to the seat and at the back of it, admitting the water to the pan through a much larger pipe than usual and increasing the quantity of water used at each flush. The objections to this modification are, slight increase of cost, waste of floor space, and the objection of some Water Companies to the three gallon flush in place of the usual discharge of two gallons. In the pedestal type of water-closet the pan and trap are often in one piece of earthenware. In some respects this is good, especially if the pan is fitted with a joint which can be drawn tight by some mechanical contrivance, instead of being dependent upon putty or some other cementing material.

There is, however, one variety of pedestal closet which should be carefully avoided—it is usually distinguished by the sub-title of "wash-out." It has only one advantage: there is on the bottom of the pan always a layer of water, with a surface of greater area than in the ordinary "wash-down" type. When the flush is made, the contents are swept to one side, or to the front or back, according to the make of the apparatus, and descend into the trap through a long, narrow neck which is quite above the water in the trap, and soon becomes very foul indeed. The large water surface in the pan certainly tends to prevent anything adher-

ing to it, but this is not enough compensation for its great defect.

Another type of water-closet, older than the pedestal and differing from it in principle, is the "valve apparatus." This consists of an earthenware pan with a metal trap below. In addition to and above the trap there is a plug or valve to stop up the hole in the bottom of the pan and retain a considerable quantity of water with a surface area of the full diameter of the pan. The valve is actuated by a handle at the side connected with a somewhat complicated mechanical arrangement under the seat, which also controls the "flush" and regulates the amount of water to be retained in the pan after it has been washed out and the valve has closed. The valve closet has one great advantage in addition to the retention of water in the pan—it is reasonably silent in action; on the other hand it is much more complicated than the pedestal type and, because of the machinery below, requires more frequent expert attention. Again there is the objection that generally this type of apparatus must have a wooden casing if it is to look neat and tidy. But perhaps the greatest objection is the fact that between the water line in the trap and the valve there is a space, out of sight, which becomes very dirty and gives off a foul smell when the valve is opened at each flush. In all cases the w.c. seat should be made to lift up, and what is called a "slop top" should be provided. This is an earthenware extension of the top of the closet pan, sloping towards the pan, and with a raised margin on the outer edge so that anything spilt upon it will run into the pan.

Of "Flushing Tanks" there is even greater variety than of closets. These are the tanks fixed upon the wall five or six feet above the floor, holding two or three gallons of water to be emptied by a pull on the handle. They are all or nearly all now made with syphonic action, so that once started the flush continues until the tank is emptied. But there is hardly anything else common to them all; each variety has its own little trick, which must be learned before certainty of action can be relied upon. It is a pity that makers do not combine—in the

public interest for once—to standardize this article so that one kind of pull will do for all. Until this is done the only way of safety is to visit the show-room of the manufacturer and by frequent trial test them thoroughly, one by one. Unless the flush follows immediately on any kind of pull, whether fast or slow, jerky or smooth, it is no good fitting the apparatus in a house and expecting persons of varying temperament to be patient under such trying circumstances.

Sinks are not of such great variety. White glazed earthenware, of course, without ornament of any kind, is best in all cases. In the scullery the sink should be large and shallow, with plenty of outlet through a fixed brass grid. The butler's or housemaid's pantry sink may be either shallow like the scullery sink but smaller, when the washing up will be done in a wooden tub; or it may be deep, with a solid plug and an overflow to prevent accidents should the tap be left dripping and the plug in. Pantry sinks are sometimes entirely of hard wood. These are good if in constant use, but if allowed to remain dry for long the joints open and may leak and become receptacles for dirt. The old lead-lined sink is objectionable in many ways. Its surface becomes uneven owing to expansion and contraction of the lead, and it is difficult to keep really clean. A better but more costly metal lining is tinned sheet copper, but the tinning does not last long and is difficult to renew. Whether the sink be of earthenware or of other material the waste pipe from it should be large, not less than one inch and a quarter bore, and the trap must always be furnished with a screwed stopper to give access for clearing out in case of stoppage.

Baths are made of glazed stoneware and of various metals, cast-iron being the cheaper, and having much to recommend it if the glaze is good; they may also be obtained in tinned sheet steel or of copper or zinc. The stoneware bath is good, and until recent years was the only one which could be depended upon to retain its glaze. It has the disadvantage of being very heavy and expensive. In public baths when in constant use it is admirable—being once hot it retains its heat for a long time—

but for private use it is too extravagant in its consumption of hot water. Copper also is costly, and the metal being necessarily thin, the enamel is liable to be flaked off. It must also in all ordinary cases be enclosed. Its one great advantage is that it absorbs but little heat from the water. Sheet steel is cheaper than copper, but has the same disadvantage in respect of the enamel; also it is subject to rapid rusting if the surface gets chipped.

Cast-iron is by far the most common metal used for baths. It does not absorb a great deal of heat, and if coated with vitreous enamel will last for many years with very little sign of wear. As the glaze is actually burnt into the metal it cannot be chipped off by any reasonable means. For the small home, then, the bath to be used is of cast-iron, with vitreous enamel, a large outlet and waste pipe and the simplest possible way of letting out the water; there is perhaps nothing better for this purpose than the old-fashioned plug and chain. On sanitary grounds the bath should not be encased, and must therefore be selected with this in view. Here, as in all other parts of the house, there must be plenty of fresh air and no lurking place for dirt if health is to abide in small homes.

JOHN CASH