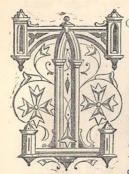
## HOW TO BECOME AN ARCHITECT.

BY AN ARCHITECT.



O answer such a question as this fairly and honestly, in such a way as to set plainly before the reader the necessary qualifications for, and the best means of, entering the profession, the greatest care and consideration are required; and this because, unlike some of the professions where certain doors have been erected through which the student *must* pass, any one who feels so disposed may

become an architect—so far, at least, as setting up in business for himself—without going through any recognised course of study, or time of probation. The law, in fact, does not in any way help the profession or protect it as in the case of its sister professions—law and medicine; there is no beaten track along which a student must walk, and from which there is no danger of his wandering, and he must in consequence act with great caution at the commencement of his career, and be careful to avoid taking a wrong step, which may altogether ruin his chance of future success. But let us leave this point for the present, and first consider what prior qualifications an intending architect should possess, and also what should be his course of study.

The young man who enters on the professional study of architecture, should possess much constructive talent and power of thought, and furthermore, he should be endowed with no slight measure of the creative faculty. He should also be a man altogether without bigotry, capable of looking at matters connected with his profession from various standpoints, being always open to conviction, even from his inferiors; for an English workman, of long experience in his own particular trade, can often suggest useful and profitable alterations in the plans of even the most eminent architects.

Provided with these preliminary qualifications, the intending architect should then study the practical working of all classes of materials used in building, acquiring at the same time a good general knowledge of their manufacture; he should also possess some little practical acquaintance with joinery and plumbing. The knowledge of these two latter branches will give him a certain command over the foremen and workmen with whom he has to deal, while he at the same time obtains their hearty support in his work, together with that additional respect which workmen always show when they see that the architect knows something practical concerning their craft. The young architect should also have some idea of geology, especially of the various strata met with in foundations and earthworks; he should also be able to discern the best stone of its class, and the adaptability of certain classes of stone to meet the different requirements of colour, effect, strength, resistance to exposure, and suitability for carving.

Another section of knowledge required comprises (1) the art of describing, by specifications and plans, that which is intended to be carried into actual effect, and (2) the art of draughtsmanship, or making working drawings of every description. And here, while we impress upon the student the necessity that exists for making himself proficient in drawing, we would at the same time utter one word of warning. drawings are simple enough, even to the poorest draughtsman, as all that he requires is to draw accurately, and this he may easily do, provided his knowledge of the subject he has to illustrate is well within the compass of his mind, and provided that he keeps strictly to the specification except where authorised to deviate from it. But another class of draughtsmanship is eagerly sought after, which is described in the profession as "telling" drawing; it is of various styles, and can only be acquired by incessant labour and devotion on the pari of the student. Now, the danger is that the student will too soon create in himself a strong passion for this artificial kind of work, and will neglect to acquire the more prosy but far more important knowledge necessary before true success in the profession can be attained. It is against this danger we would put our readers on their guard, for in most architects' offices this passion of the student's for furnishing "telling" sets of drawings is greatly encouraged, especially when the drawings are designs for work open to public or private competition. Let it be clearly understood that we in no way wish to discourage draughtsmanship; we wish rather to inculcate in the student's mind a true love for architecture, and a hearty desire for the attainment of such knowledge as may furnish to the public good, sound, practical work, not consisting of mere cleverness of design, but based upon a thorough comprehension of the various architectural styles and treatments, and their adaptability to the purposes and requirements of the buildings in view. While upon the subject of drawing we may point out that a knowledge of sketching in water-colours is often a great help to the student, and if to this he add a good idea of drawing in perspective, and projection, he may in a sense command his position in any architect's office.

But to proceed. The student who has acquired such preliminary knowledge as we have pointed out, should now be careful to study very closely the classic school of architecture, by reading such works as Gwilt's "Encyclopædia of Architecture, Historical, Practical, and Theoretical," Stuart's "Athens," and the Lessons in Architecture in the "Popular Educator." These works will form a basis for study, which, if closely followed by the student, will acquaint him with the first laws of architecture; thence he may pass on to the more elaborate styles or periods, carefully and

accurately drawing a specimen of each; he will thus learn how one style succeeded another, why certain alterations were made, and why and under what circumstances the various schools of art arose, and what were their more important differences. In studying a certain class of Gothic art the student should sketch, and afterwards draw to a large scale, the older parts of Westminster Abbey, or any other of the splendid examples of Gothic architecture which abound in almost every county of Great Britain. Great assistance may be obtained in this direction by a careful study of Bowman and Crowther's "Churches of the Middle Ages," the splendid works of Pugin, and Brandon's "Analysis of Gothic Architecture." Though we have mentioned some of the best architectural works of this description, we would advise the student not to rely solely upon them; a careful study of them will, however, enable him to form a correct idea of art, which, added to his knowledge of facts and detail, will in time empower him to form opinions of his own, founded upon the same materials and data which guided his eminent predecessors to their conclusions. All the works we have mentioned, although very expensive, are to be found in any art library or library of reference, so that they are available to the student in almost any part of the United Kingdom.

It is generally supposed that a thorough knowledge of the higher branches of mathematics is an essential to the professional architect. Now, although such knowledge is without doubt of great value, still it is not absolutely necessary, and an ordinary education in this department of science will, as a rule, be found sufficient. In all cases in which the architect is called upon to answer difficult queries, time is allowed him for special preparation and reference; and this, indeed, is but fair, for if the professional brain, already overweighted with a wide field of absolutely necessary learning, can be relieved from further pressure, it is but legitimate that such should be the case. Thus eminent scientific men have made some departments of manufactured materials-iron, glass, bricks, cement, &c .- the study of their lives, and the architect may often be well content to trust to their knowledge in the case of the more difficult questions arising in such subjects.

There is a further kind of general knowledge which every architect should possess, which we may describe as (1) an acquaintance with the prices of labour and material, and with the produce of different localities, and (2) the complete comprehension of the requirements of various kinds of buildings, whether hospital, railway station, hotel, prison, warehouse, town-hall, or residence, from a cottage to a palace. Thus, for example, it would be useless to design a concert hall, neglecting altogether all the well-known principles of sound, or to plan a prison, omitting all consideration of sanitary matters. The question of sanitary arrangements is one that cannot be too carefully studied by the architect, and any time expended by him on its consideration is certain to be spent profitably. In our opinion, if architecture as an art be assisted by science, both working together harmoniously, calamities and

scourges of society, such as fever and cholera, might be to a great extent averted.

Surveying is a further subject that any student, wishing to become an architect, must learn; it is, indeed, bound up with the science of architecture almost more than any other branch of knowledge. Surveying may be divided into land-surveying, the survey of buildings, estimating, and the survey of dilapidations, and each of these sections should be carefully studied.

It is advisable that the young architect should keep himself *au fait* with regard to all new improvements and patents. As a general rule, the inventors send circulars of their patents to the profession, who consider their relative merits, and adopt them if sufficient advantage be shown.

And now, having described to some extent the knowledge required, and the course of study to be pursued by the young architect, let us for a minute imagine the case of a student wishing to enter the profession, and see what are the steps open to him at the commencement of his career.

In the first place, it will be well for a young man, before binding himself absolutely, to consider the ground he is about to traverse, and to thoroughly make up his mind as to his aptitude for the profession. It often happens that a young man will show in a marked sense his peculiar fitness for certain professions or trades, but this is rarely the case with architecture; his fitness must, so to speak, grow upon him by degrees. Many people think that with a little knowledge of the building trade, coupled with a smattering of the first principles of designing, engineering, and surveying, they are well qualified for the status of an architect. Unfortunately, at the present time, superficial attainments often appear to satisfy the public, and we fear such a state of affairs will continue until Government, by some wise legislative act, or some powerful institution, steps in and protects the profession. At present it often happens that men with superficial attainments, but possessing influential friends, receive extensive patronage, to the detriment and degradation of the art.

Consequent upon the open character of the profession before mentioned, it of course happens that the intending architect is not in any way bound to enter an architect's office and study for a term of years, although this is the more usual course.

It is customary in the profession to receive with a student entering an office as a pupil, a premium varying in amount from 70 to 700 guineas; three, five, or even seven years' apprenticeship is required, the length of term generally depending upon the age of the pupil. Some young students of our acquaintance have received after twelve months' service a small salary, say about £15 per annum, but this is never the case in the principal offices, even when the pupil shows marked talent. We may here, perhaps, offer a word of advice to the parents or guardians of the pupil who has chosen this profession; let them be careful to avoid paying large premiums to architects of no real ability or status, although perhaps successful in having

extensive commissions to execute. Such a mistake, if made, is almost certain to end in disappointment; the student obtaining a mere superficial knowledge of the method of conducting large works, while he is altogether ignorant of the more elementary and more fundamental details of his profession.

Students, when they have served their articles, often enter eminent offices as "improvers," receiving in return for their labour the advantage of seeing large works conducted; this is understood to be in lieu of payment. Should they then determine to become professional draughtsmen, if they possess only ordinary ability, they may expect to receive from £3 to £3 ios. per week.

There is one voluntary examination—that held by the Royal Institute of British Architects—to which a student can, if he please, subject himself; but a certificate of proficiency is not highly valued by the profession, although it is to be hoped that its importance will increase as the profession rises higher in the estimation of the public.

Before concluding this paper, one word should be said as to the usual scale of remuneration in the profession. Full information on this point may be

obtained from the secretary of the Royal Institute of British Architects, Conduit Street, Regent Street, who will, on receipt of three postage stamps, forward the scale of charges authorised by the Institute. It will be here sufficient to say that an architect is usually paid five per cent. on the value of the work executed. Recognised position in this profession, as in others, can in a modified sense demand its own remuneration.

We may mention that some architects study jurisprudence, and become referees and arbitrators. Such a position is considered by many as the highest to which an architect can aspire; the remuneration is high and the office important, great skill and judicial knowledge—only attainable by long practice—being, of course, required.

And now, in conclusion, the student who has read this paper carefully will, we think, gather from the remarks herein contained how very much his chance of future success depends upon himself, and how necessary therefore it is for him, when he has decided to become an architect, to throw all his energies into the work of preparing himself to take up a high position and make his mark in the ranks of the profession.

## A HARD CASE.

CHAPTER THE EIGHTH

Lynn hoped his mother's friends would tire of offering civilities which he never accepted, and would let him alone; but perhaps Mrs. Templeton shared Mrs. Greenwood's anxiety to bring about a marriage between him and Alice, for she, at least, was untiring in her attentions; and Lynn, being bound by his promise, was obliged reluctantly to consent to spending two days at her house the week following his conversation with his mother.

Not to him alone was the visit distasteful, for Bertha looked forward to his going with dismay. To be without him for two whole days, when they were accustomed to spend almost every hour together. seemed a dismal prospect. She dreaded, too, being alone with Mrs. Greenwood, who had lately treated her with cold severity and disapproval. Then she began to think how could she bear the time, which must come some day, when Lynn would go away-not for a day or two, but for always, and all her life would be like these days she so dreaded; unless, indeed, she made up her mind that the time for asserting her own rights had come. At any rate, she resolved to decide what to do without further delay. The longer she waited, the harder it would be to carry out her old plans. She and Lynn would only grow fonder of each other, if possible-which she doubted, for she loved him heartily, and thought his ways the perfection of kindness, just what was best in a friend; and that he could ever care for her in any other way she had never dreamed.

"I am awfully sorry to go away and leave you, Bertha," said Lynn, when they were alone. "I wish you were coming too."

"I wish I was," answered Bertha, sighing; "at least, I should wish it if I was your sister, and should be treated properly. I shouldn't like to go as I am, and be looked down upon."

"Looked down upon!" cried Lynn angrily. "It's only fools who would look down upon you, Bertha; you are worth more than the whole set about here put together."

"I am glad you think so," said Bertha, smiling; "but I am afraid you wouldn't persuade other people to believe it."

Lynn was a little vexed. Why would Bertha always take his speeches as matters of course and commonplace? Why did she not see that there was something more than mere kindness or compliment in them? He did mean something more than that, and he meant her to understand it, but she seemed persistently blind, and sometimes he almost lost patience.

When Bertha, as a child, had spent some weeks with her old schoolmistress, Miss Adderly, and for the first time had been allowed to read story-books, her head had been filled with romance; a sort of enchanted prince had entered largely into her dreams, and