

## ARCHITECTURE; OR, THE ART AND HISTORY OF BUILDINGS.

By H. W. BREWER.

## PART I.

## ANCIENT ARCHITECTURE.

OF all the arts, there is none that appears to offer so little that is interesting to the girl student as architecture. She cannot help associating the idea of it with what she sees going on around her every day. Roads blocked up, hideous ladders sprawling over the pavement; brickbats and rubbish thrown down, mortar splashing about; dust, din, and a general sense of grittiness everywhere. She very naturally dislikes having her neatly-braided hair powdered with the dry lime falling from some ill-constructed "stage" of the scaffolding. She most decidedly objects to the fine sand being blown into her eyes by every eddy or current of wind, and it does certainly not add to her contentment or peace of mind to find her neat dress spotted with whitewash, while she will recoil with horror at discovering that she has stepped with her elegant little boots into one of those puddles of good "fat mortar" which delight the eye of the builder. Then the workmen who are all over the place are so rough and uninteresting, and they have such an unpleasant way of shouting and bawling at one another in order that their voices may be heard above the general din of hammering, sawing, filing, planing, cutting bricks, wrenching iron, chiselling stone, and "ramming" timber, that her "poor head ached."

Now all this is what one of our girls will probably experience if she venture to accompany her father or brother (who happens to be an architect) to look over some building which she has in course of construction, and she will not unnaturally contrast it with the nice visit which she recently paid to the "studio" of some friend who is a painter, where the very disorder of everything was so picturesque and pleasing: the bit of old Norwich tapestry on the wall, the armour scattered about here and there, the delicate Venetian glass, the old china, and all the other accessories of an artist's room. Then, too, the work which is going on is so very interesting, and looks so

easy; and the very attitudes of the painter are graceful; he is such a charming fellow, and has such an agreeable and musical voice, &c.

It is not to be wondered at that our girls prefer painting to architecture when they see the two arts being practised. We fear, too, that a visit to the architect's office will not greatly mend matters. A look at the "plans," "elevations," and "sections" will fail to interest them. "Plans," as a rule, are not pretty, and we never yet met a lady who could master the perplexities of "a section." Once we thought we had, but, alas! after some very intelligent observations on the part of our fair visitant our hopes were shattered by her suddenly asking whether it represented "the outside or the inside of the building!" Although women have excelled in almost every other branch of art—and we could give a long list of female painters, sculptors, and musicians—we do not know of a well-authenticated case of a woman architect. It is true that there are traditions that Erwin von Steinbach, the architect of Strasbourg Cathedral, was assisted by his daughter, and Sir Christopher Wren's daughter has been accredited with the design for St. Dunstan's spire, but there appears to be little foundation for the report; and if Wren's daughter did really build St. Dunstan's spire, she must, at best, have been a very indifferent architect, as it is the weakest and poorest of all the works of Wren's scholars.

But it is not with any desire of persuading our girls to take up architecture as a profession that these papers are written, because we may say at once that we cannot look upon architecture as a profession for ladies. They might possibly act in the capacity of office clerks or draughtsmen; but even this is a career which we should not recommend to any of our girls, because, in order to become a thoroughly efficient architectural draughtsman, and to arrive at any standing in this branch of the profession, it is essential to measure actual and existing buildings, which necessitates clambering about scaffolding and running up ladders, otherwise it will be impossible to know what will be the effect of a capital or cornice when placed some thirty or fifty feet above the eye, and one must not only know how to draw a piece of detail, but how it will look when executed.

Our object is rather to interest our girls in those glorious relics of the past which, in marble, stone, brick, or timber, are spread over the whole civilised world, to show them what these grand works can tell us of the religion, history, manners, and customs of those who have long passed away, to point out the noble aim, the delicate and graceful thought, the refined and

exquisite taste, the patient and painstaking toil expended upon these buildings. That every work of man's hand must perish is a sentence passed upon it by the Divine Creator, but some buildings erected in past times are so solidly and durably constructed that we can scarcely realise the fact that they are not eternal! And others are so ancient and speak of days so far removed from our own, that we cannot imagine, when we look at those crumbling columns or towers, that there was a time when they were not!

The history of buildings, in fact, is the history of the civilised world; there was probably no time when men did not build or fashion some kind of habitation. Where natural caves existed, the primeval man possibly used them, and cave architecture, tunnels, underground structures, vaults, and crypts have always formed an important branch of the building art, and do so at the present time. It is a very singular thing that the cave seems still to have a weird and extraordinary fascination for human beings. The mind dwells upon the idea of an unexplored cavern or subterraneous passage with an intense desire, not unmingled with dread, to explore it, and probably the very first thing that a boy does when going to school is to try "to dig a cave," as if the earliest habits of the race still exhibited themselves in extreme youth, and it would seem that this feeling asserted itself strongly in mediæval Gothic buildings. The arched roofs, called "vaulting," from its assuming the form of a vault, or cave, seems to be a recollection, often greatly refined, of man's earliest dwelling, the caves of the rocks. Those who have seen St. Mark's, Venice, and many of the Byzantine and Romanesque churches, must have been struck with their cavernous aspect. Even in the lofty and beautiful Gothic churches of later date, the cavernous aspect still, to a certain extent, is noticeable in the stone vaulting. Possibly the hut or bower constructed of wood and branches of trees was as early as the times of our first parents. Man must always have erected some kind of shelter to protect himself from the heat of the sun or the inclemency of the weather.

Sacred Scriptures tell us that Cain "built a city and called the city after the name of his son Enoch." Now here we have certainly brought before us the idea of building. Possibly the city was a mere collection of wooden huts or bowers. A little further on we are told, "And Adah bare Jabal: he was the father of such as dwell in tents and of such as have cattle." Now here we have another kind of dwelling mentioned, "the tent," and from the fact that Jabal is spoken of as "the father of such as have cattle," we may presume that the tent was the common habitation of herdsmen, who would, of course,



The Cave. Prototype of Christian Architecture—Romanesque, Byzantine, and Gothic.



The Wooden Hut or Shed. Prototype of Trabeated Architecture—Egypt, Greece, India.



The Tent. Prototype of Pagoda Architecture—China, Persia, Japan, and Indian Pagoda.

THE THREE SOURCES OF ALL ARCHITECTURE.

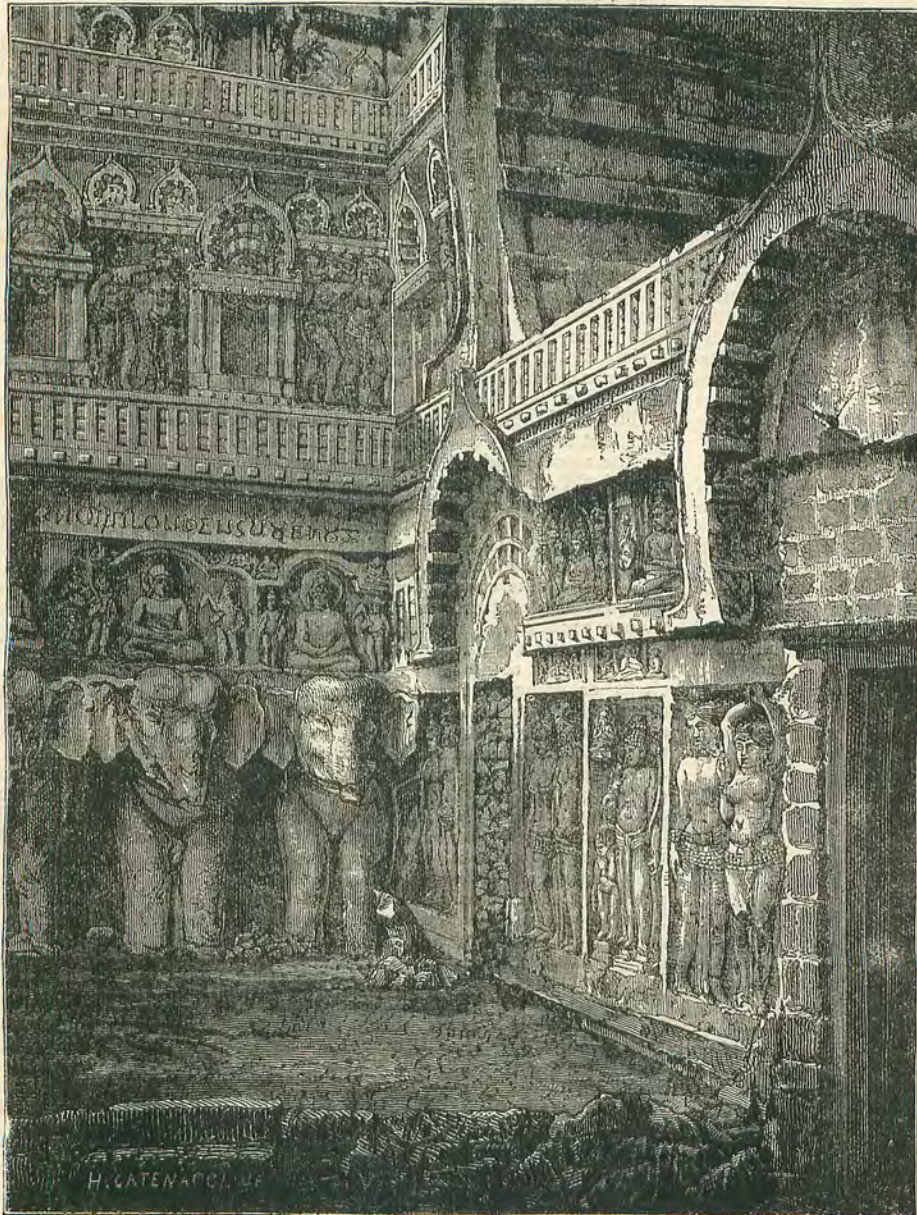
being more or less of a nomadic race, require a form of dwelling easily movable. It will be observed that both of these early references in Scripture to building refer to Cain and his descendants. Of the homes erected by the other descendants of Adam, even of Seth, we have no notice. Possibly they lived in caves, and this would account for the Scriptures saying nothing about the dwellings they inhabited.

Now, if this was the case, and the probability

pagoda architecture, in all its temples, perpetuated one or other of the forms of structure invented by the descendants of Cain!

Thus we find in Egypt, Greece and Rome, and India the trabeated or beam-roofed architecture; in China, Japan, Persia, Mexico, the tent-shaped form of temple. In India, it is true, we have cave temples of a very early date, such as Elephanta, Bang, and Karli; but nothing could prove more distinctly that their notions of architecture were borrowed from wood

present beams, but the very pegs, nails, laths, and shavings are laboriously imitated in stone, and form a singular kind of decoration. And although at Karli the roof, probably from following the line of the natural cavern, is arched in form, yet it is covered with ribs, like the interior of the hull of a ship turned upside down, and the ends of the ribs do not rest upon pillars or cornice, but are unsupported, and stick out just like beams sawn off and nailed to the roof.



INDIAN CAVE TEMPLE AT KARLI. CARVED IN IMITATION OF WOODWORK.

is certainly in its favour, a most remarkable thing has happened, which is no less than the fact that Christianity has perpetuated in its church architecture the recollection of the dwellings inhabited by Abel and Seth. Whereas every form of Paganism all over the world has by its "trabeated,"\* or beam covered, and its

\* The term "trabeated" is derived from the Latin "trabs," a beam. All architecture is called "trabeated" when the space from pillar to pillar is spanned by a flat piece of stone, resembling a beam. When this

construction than the fact that the whole of the internal decorations of these cave temples are carved with representation of woodwork. We find not only are the ceilings made to re-

space is spanned by an arch, the building is said to be "arcuated." In more elaborate classical architecture, the word "entablature" is given to this "trabs," or trabeation. The "entablature" includes the "cornice," the "frieze" (which is generally adorned with sculpture), and the architrave. All these, however, are only ornamental features added to the external face of the "trabs," or "trabeation."

One of the most interesting examples of very early trabeated architecture exists in our country in that remarkable monument known as Stonehenge. It is impossible even to give a guess at its date, though it is probably one of the very earliest buildings in the world. It is usually described as a Druidical work, though there is no proof that it was erected by the Druids, and there is evidence (of a negative character, it is true) which throws considerable doubt upon the fact. If Stone-

henge were a Druidical structure, it is scarcely possible that it could have escaped the notice of Cæsar, Tacitus, and all other early writers, without we suppose it to have been long abandoned even in Cæsar's time. Then, again, Stonehenge is so very different from any other Druidical structure in existence. Judging from all other works which the Druids have left, their notions of building were most primitive and barbarous, but Stonehenge, on the other hand, exhibits a considerable knowledge of the science of construction, and the stones of which it is built are "hewn," or squared, and jointed together, which is not the case in other Druidical structures with which we are acquainted, and therefore it is not improbable that Stonehenge may have come down to us from some very ancient state of civilisation in this country of which it is the sole existing monument and the one solitary witness.

Now we come to that most important question, where and what was the first arch? We answer unhesitatingly, the first arch was that God set in the heavens. "I do set my bow in the cloud, and it shall be a token for a covenant between me and the earth: And it shall come to pass when I bring a cloud over the earth that the bow shall be seen in the cloud: And I will remember my covenant which is between me and you and every living creature of all flesh." That bow or arch was the sign of the coming Redemption, which should enclose within it all who live rightly upon the earth, just as a great arch or vault stretches from wall to wall and embraces all the space between. This was the first great arch, and when the Redemption (of which it was the sign) came upon earth that form was copied from heaven, and became the fundamental principle and leading feature of the architecture of all Christian people, and distinguished their buildings from the beamroofed structures of heathen people and pagan nations.

After the flood we find the Scriptures again speaking of the building of great cities. "And the beginning of his [Nimrod's] kingdom was Babel and Erech, and Accad, and Calneh, in the land of Shinar. Out of that land went forth Asshur, and builded Nineveh, and the city Rehoboth, and Calah, and Resen between Nineveh and Calah; the same is a great city: . . . And they said, one to another, Go to, let us make brick and burn them thoroughly. And they had brick for stone, and slime\* had they for mortar: And they said, Go to, let us build us a city and a tower, whose top may reach unto heaven."

Now this is extremely interesting, because we have in it an account of regular building operation being systematically carried out with brick and stone, and that at a period usually supposed to date back as far as 2234 years before the Christian era. What is, however, most remarkable is the fact that these and all other building operations, after the flood, recorded in the sacred Scriptures refer entirely to the works of the descendants of Ham!

Of buildings or cities erected by the children of Shem and Japhet, we have no notice whatever, except the Tabernacle, which, as a mere movable wooden structure, covered with draperies and skins, cannot be included under the terms architecture or building.

Thus it would seem that before the flood building and architecture were arts practised alone by the descendants of Cain, so after the flood, down almost to the period of the Babylonish captivity, they were practised alone by the sons of Ham. The Scriptures say, "God

shall enlarge Japhet, and he shall dwell in the tents of Shem," which seems to show us that both the descendants of Shem and Japhet were dwellers in tents; whereas, as we know, the descendants of Ham lived in cities, and it is most improbable that, notwithstanding the curse of Canaan, the followers of Ham were more civilised, more refined, and far more prosperous for many centuries than those of either Shem or Japhet; just as the descendants of Cain were more refined, more civilised, and more advanced in arts and manufactures than those of Seth.

We wish especially to call attention to this, because, in the first place, it shows us that mere commercial prosperity and advancement in the practice and use of the industrial arts is not always to be regarded as a mark of God's special favour; and, secondly, because it is one of several proofs that, until the advent of Christianity, the true religion was without any distinctive kind of architecture.

That the Jews were without an architecture, and were not well versed in the building arts, is proved by the account given in the Scriptures of the erection of Solomon's temple and palace. We read in the second book of Chronicles that when Solomon commenced to erect the temple he sent to Huram or Hiram, King of Tyre, begging him to send to Jerusalem "a man cunning to work in gold, and in silver, and in brass, and in iron, and in purple, and in crimson, and blue, and that can skill to grave with the cunning men that are with me in Judah and in Jerusalem." Now from Solomon requiring a man versed in so many arts at once, it

is evident that this gifted individual was to act as director of the "cunning men that are with me in Judah." Hiram sends the kind of person required by Solomon; and answers him thus: "And now I have sent a cunning man, endued with understanding, of Hiram my fathers, the son of a woman of the daughters of Dan, and his father 'was' a man of Tyre, skilful to work in gold and in silver, in brass, in iron, in stone, and in timber, in purple, in blue, and in fine linen, and in crimson; also to grave any manner of graving, and to find out every device which shall be put to him."

Now if we simply omit the word "was," which is interpolated in the English version, we shall see at once that Hiram, King of Tyre, sent over to Solomon two men of the name of Hiram to work upon the temple, and that they were father and son. This seems the only way of accounting for what would otherwise be a singular contradiction in the Scripture narrative. In 2 Chronicle ii. 14, we are told that Hiram's mother was of the tribe of Dan, but in 1 Kings vii. 14, we read, "He was a widow's son of the tribe of Naphtali."

A "was" has in this verse been also interpolated, which seems to spoil its sense. Thus it would appear that the two Tyrian Hiram had Jewish mothers. Solomon employed all the "strangers" that were in the land to help build the temple, and the six hundred overseers were drawn from amongst these strangers, or foreigners (see 2 Chronicles ii. 17 and 18). Now, we have previously pointed out the fact that all very early architecture is either of wood, wooden in construction, or made to



THE TEMPLE AND PALACE OF KARNAC, THEBES. TRABEATED ARCHITECTURE.

‡ Probably clay or mud.

imitate woodwork. In Solomon's temple, stone seems to have been merely used for the foundation and the external walls, and it is always spoken of as being "hewed," not "carved" or "wrought." The interior was entirely lined with wood to conceal the stonework, and even the external carvings were of wood, covered with metal. The only columns mentioned, the celebrated Jachin and Boaz, with their "chapiters" (capitals) of "lilly work" and pomegranates, were not of stone but of brass. The great "lavers" and "seas," and the altar of sacrifice, all of which were external, were also of metal.

All this points to the fact that stone was regarded as a material which was useful for strength, but was only capable of being used when wood was not attainable, or was liable to become injured. The idea that it possessed any kind of beauty, or was capable of developing a noble style of architecture, never suggested itself to the builders of Solomon's temple, or any other builder of this early period, and, singularly enough, it is recorded, evidently in praise of the temple, that internally "all was cedar: there was no stone seen." (1 Kings vi. 18.)

It is much to be doubted whether, if Solomon's temple now existed, we should regard it as a handsome place of worship; it was evidently a moderate sized chapel, somewhat narrow, very dark, with a flat ceiling, and covered all over with thin plates of gold or gilding. It must have been greatly inferior to the temples of either Egypt or Greece, because its exterior, instead of having the magnificent porticoes and columns, had the houses of the priests built up against its walls. Of course the decorations and furniture of the temple were most magnificent, the hangings of purple and rich vessels of gold were undoubtedly superb, but there could not have been

anything about it which would, according to our ideas, be considered magnificent or dignified architecture.

So much has been written about the architecture of Egypt and Nubia, that we will not detain our readers by any extensive description of its peculiarities. The Pyramids, the Temples of Thebes, Luxor, the Memnonium, the rock cut temples of Abu Symbal, carry us back to very remote ages, but as a rule the Egyptian temples are far less ancient than people generally suppose. The superb temple of Denderah, for instance, is proved from its inscriptions to date only from the reign of Tiberius Cæsar, and the graceful temples and buildings of Philæ were for the most part erected during the reigns of Augustus, Tiberius, Domitian, Nero, and Trajan. The temples of Kalabashee and Dendoor in Nubia appear also to date from the time of Augustus. Although a great deal has been written to prove that the architecture of the world was all more or less derived from Egypt, yet it seems more probable that the architecture of Egypt taught little that was not known before, and that little seems to have been a development of art, under circumstances which are singularly repulsive and detestable, because they point to acts of the most outrageous tyranny and oppression on the part of the wealthy and powerful, and a condition of the most abject and degrading slavery on the part of the lower classes. What can be more hateful to the eyes of a Christian man than to see bas reliefs representing a tyrannical overseer with a long whip driving teams of human beings yoked together like oxen? And there are other matters connected with Egyptian architecture, which speak of the immoral and repulsive form of worship practised by this remarkable people. Egyptian architecture shows us at once how

a nation may be most thoroughly prosperous, most highly civilised, full of learning and educated in all worldly knowledge, and yet at the same time degraded beneath the level of the lowest savage in religion and morals.

In Egyptian architecture we still find the trabeated or beam construction, though the introduction of the capital above the columns is an advance towards a more consistent treatment of stone as a building material. The real significance of the capital, however, is lost sight of by the intrusion of a square mass of stone, looking like a log of wood between the capital and the "entablature," or combination of beam and cornice, which it supports.

One cannot leave Egyptian architecture without saying something of those two remarkable features, the obelisk and pyramid. It is somewhat strange that these, perhaps the two most prominent objects in Egyptian architecture, possess no special use. There are one or two remarkable facts concerning the obelisk and pyramid which have not, as far as we know, been previously noticed, or at any rate are not generally known to students of architecture; they are, firstly, that the obelisks are always erected in pairs, and are found only on the east bank of the Nile, whereas the pyramids are generally in groups, and are universally, without a single exception, found on the west bank. The obelisk represents life, and was on the bank nearest to the rising sun; the pyramid, which represents death, and was sometimes used as a tomb, was on the side nearest to the setting sun. The great Pyramid of Cheops is simply a monument of most outrageous vanity, and it is a piece of poetical justice that the hateful tyrant who erected it as his sepulchre was never buried in it.

(To be continued.)

## FORLORN, YET NOT FORSAKEN.

### THE TRUE STORY OF A NURSERY GOVERNESS.

#### CHAPTER IV.

"If good people would but make their goodness agreeable, and smile instead of frowning in their virtue, how many would they win to the good cause."—*Usher.*



None could resist the peculiar charm of Margaret's manner, which had so captivated me. Released, too, from the pressure of a position which took her out of her natural sphere, she quickly lost the first stiffness of being among strangers, and surprised even me by the graceful wit and ease with which she joined in conversation. She fell into all our ways naturally and readily, and was evidently her real self. It is often so. The very one who is stiff, angular, and touchy where she feels herself unloved and unwanted, perhaps only tolerated as a necessary bore, becomes a totally different being among those who love, esteem, and make much of her. How constantly one hears it observed, "Oh, she is so dreadfully ready to take

offence!" Is it not that there has been some open slight, some social rudeness, which would neither have been offered to, or tolerated by, an equal? It is the offence of wounded affections, of mortified feelings.

Margaret was not touchy, but she was extremely sensitive. I have seen her flush crimson and then turn deadly pale at a servant's insolent manner, or the equally ill-bred hauteur of a "grande dame," on the same level of ignorance, in only recognising a paid dependent in Lady Corfu's nursery governess. I do not see how it could be otherwise in a finely-strung nature. I have often asked myself the question—In a similar position, what should I feel? I am certain that even for my daily bread I could not submit to the indifference, the light esteem, the occasional, careless kindness of my employers. You may laugh, Magdalen, but I remember well, dreaming one night that I was the governess at a house I visited frequently, where that lady was supposed to receive exceptional consideration and courtesy. So she did in some respects; but oh! Magdalen, after passing through a scene I had once witnessed, I awoke in such an agony of tears, and such a heart-breaking loneliness, that it was long ere I could

comfort myself with the recovered sense of my own identity.

Stiffness and touchiness are excrescences of character, called into life, or kept in abeyance by our surroundings. Yet disease may become chronic by incessant irritation, though no one denies that disease is properly an abnormal condition of the system. If our surroundings are uncongenial, the chances are we shall become "stiff"—that is to say, unnatural. If the majority of the company we mix in as social equals are yet inferior in refinement of ways and thought; if they are ignorant of the people and topics of conversation most familiar and interesting to us, the effect is most freezing. They will probably dub us at once as "stiff and formal." The fact is that such company produces the phenomenon which frost does upon water. No change takes place in its component parts, but they shrink together and become hard and unbending. Immediately one mingles again with congenial companions speaking one's own tongue, and seeing with the same eyes, one becomes again one's bright, sparkling, happy self. The same effect is produced when the company are really socially superior, and deem themselves so in every respect. No matter how

sary to put more on table. Supposing the family to consist of six persons, the house-parlourmaid would hardly be able to hand the cruet before the first person who was served had half finished eating his or her dinner, so it is as well to put some condiments on table; pepper, mustard, and cayenne can be put on in small castors, or if there is no centre-piece the cruet-stand can be put on table. With only one servant to wait, the vegetables and sauces are handed; sometimes if there is more than can be well managed, it is a good plan to put sauce for meat or poultry on table on the right hand side of the dish to which it belongs, so that the carver can help it at the same time as the meat. There is no object in doing this with the sauce for fish; it only saves time for the courses with which vegetables are eaten. At other times a servant can manage very well. A tablespoon is placed for each person if there is soup, and a fish knife and fork if there are any; or, if not, a large silver fork is placed for fish, if there is fish for dinner, and one or two large knives and forks, depending on whether one or two meats, or meat and game, are to be served for dinner. Should the dinner consist of soup and a joint, with sweets to follow, the

cover for each person would consist simply of a knife, a fork, and a tablespoon. The spoon and fork for pudding should not be put across at the top of the place for the plate. They are not to be put on until they are wanted, and then they are in the pudding plate; nor is the small knife for cheese put on table. A tumbler and a sherry glass are also placed for each person, with a claret glass if claret is drunk. A piece of bread is put on the left hand side next to the forks; it should be cut rather square and thick, as for luncheon. Where the dinner napkins are only changed once or twice a week, it is best only to fold them when they are put on table for the first time; the remainder of the week they keep cleaner if kept in rings. Whether folded or in rings, they are placed on table between the knives and forks.

If finger-glasses are not used for dessert, the wine-glasses are placed (reversed and laid down) on d'oyleys in the dessert-plates, a dessert knife and fork being put respectively right and left of the glasses on each plate.

As regards tables, there is one other kind of household to be considered—that is, the little *ménage* where only one servant is kept. It is here necessary that everything in the

way of knives, spoons, forks, glasses, and condiments that will be required for dinner is put on the table at once. A general servant laying the cloth must put the pudding-spoon and fork reversed at the top of the plate space, and the cheese-knife next to the other knife at the side, and must have everything on the sideboard that she can before dinner commences. The vegetables are best put on table. Some servants will manage to hand them once, then put them on table, when they go to fetch the next course. The comfort of the dinner where there is only one servant depends a great deal on the mistress of the house, who should consider the difficulties of serving, and arrange her dinners accordingly. Cold sweets, when practicable, greatly facilitate the waiting. The following axiom is taken from an American cookery-book. I think it so well worth remembering that I transcribe it for the benefit of the readers of THE GIRL'S OWN PAPER, and conclude this article with it.

“If one has nothing for dinner but soup, hash, and lettuce, put them on table in style; serve them in three courses, and one will imagine it a much better dinner than if carelessly served.”

## ARCHITECTURE ; OR, THE ART AND HISTORY OF BUILDINGS.

By H. W. BREWER.

### PART II.

ALTHOUGH the Greek architecture is supposed to have been borrowed, more or less, from that of Egypt, yet, with the exception of the imitation of wooden construction executed in stone (which is common to all ancient styles), there is little in common between them. It is customary to speak of the ancient Greeks as “great architects,” but we question whether this distinction can be allowed to them. Architecture to be great must be powerful both in design and construction. Now, there is absolutely no construction at all in Greek architecture; it simply consists of two stones set upright supporting a horizontal beam. When they could procure large stones they made the distances between the columns three or four times the width of the column. When they could only get small stones, the columns were close together. Architectural writers have with great affectation given grand-sounding names to these purely accidental varieties; thus, when columns are one-and-a-half of their own diameters apart, these learned writers describe the portico as being “Pycnostyle”; when they are two diameters apart they tell us that the portico is “Systyle,” &c., and temples which have one row of columns are said to be “Peripteral”; if they have two rows of columns all round they are “Dipteral”; and if the inner row of columns in a “Dipteral” temple is omitted it is “Pseudodipteral,” and so on—all of which is, no doubt, highly interesting, and shows that the writers keep a Greek lexicon on the premises!

There is a remarkable poverty of design and invention in Greek architecture. Only about three distinct varieties of column, cornice, and entablature are to be found—the Doric, the Ionic, and, in later times, the Corinthian. The last was not introduced until after the Roman conquest of Greece. These “orders,” as they are called, can scarcely be taken as absolute tests of the date of a building, because, unlike the mediæval men, the Greeks did not discard one style or order after they had invented another; but used both together. In point of ornament Greek architecture is singularly poor; it had

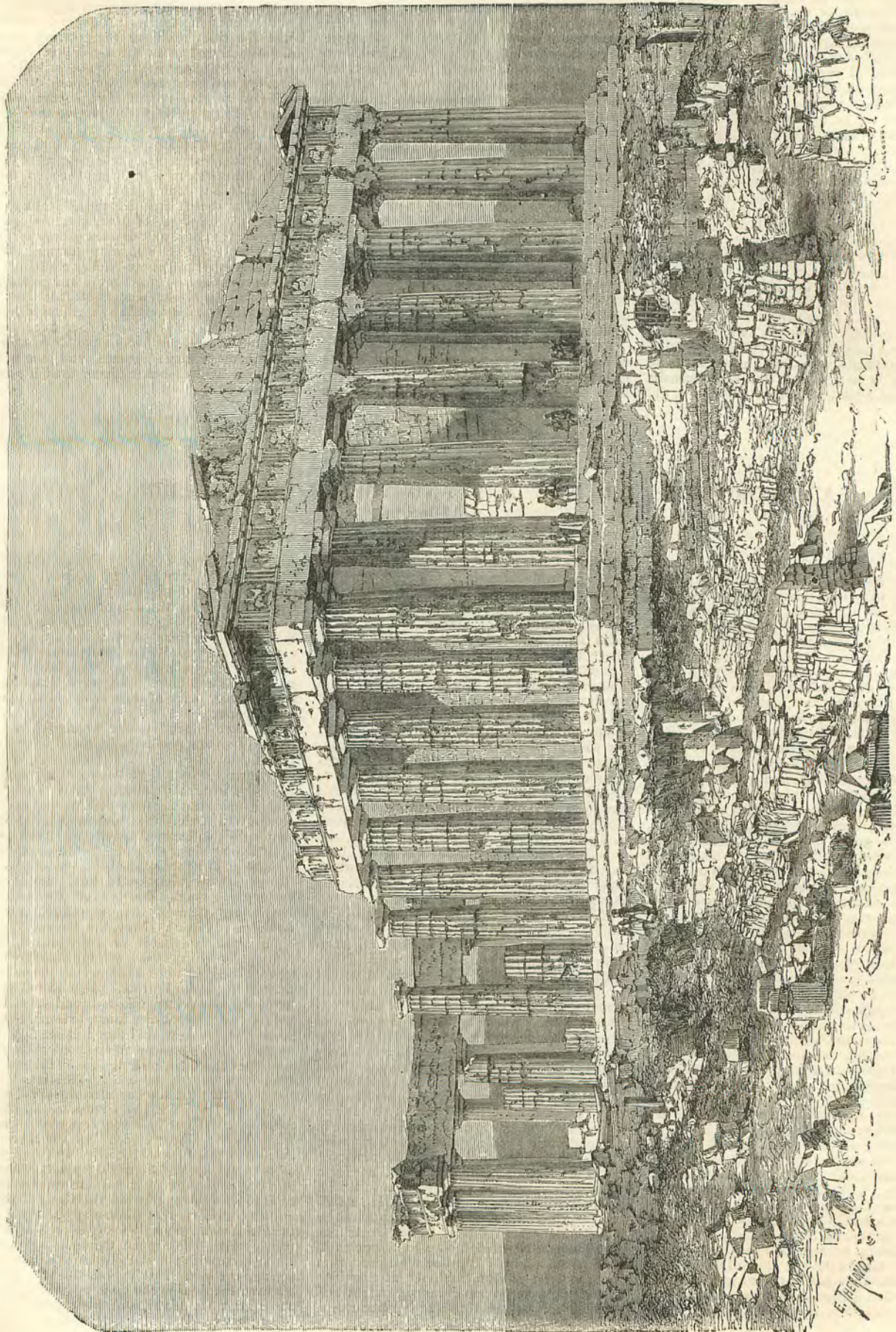
but three kinds of enriched patterns, and it is most probable that they invented none of these themselves. They were the “key” or “fret,” the “wave,” and the “honeysuckle.” It is probable that the key or fret came from Arabia, the “wave” from Egypt, and the “honeysuckle” from Persia. Nearly all decorative patterns composed of straight lines and rectangular figures came originally from Arabia (hence our word “Arabesque”), and all floral decoration from Persia.

Our girls must not, however, suppose that we wish to underrate Greek art; on the contrary, we hold that in certain artistic peculiarities no one ever approached even near to the Greeks; for, allowing that they had little invention or originality in their architectural design, yet the execution of their work, their knowledge of optics, their finish, delicacy, and refinement of workmanship, has never been equalled; whereas the sculpture with which their buildings were adorned was simply perfect.

This must not be understood in any way as an exaggeration. Art has perhaps only twice in the history of the world reached an absolute point of perfection; in other words, it has only twice in the history of the world arrived at the highest point possible to human ingenuity, and has thus surpassed all conditions of criticism. We refer in the first place to Greek sculpture, and in the second place to the vocal canon music of Palestrina. We do not say that the object aimed at either by the Greek sculptors or by Palestrina was of the highest kind. The Greek sculptors attempted to portray physical beauty only, and Palestrina merely attempted to perfect musical science in one particular branch. His music is wanting in passion and deep feeling, but it is perfect as far as art is concerned. One could not for a moment compare Palestrina's music to that of Beethoven, though, as far as art goes, Palestrina is above criticism. His music could not be made more perfect than it is, nor could one imagine it being carried to a higher point of perfection, whereas Beethoven's music, with its wonderful passion, with its all-absorbing interest, and its intense grandeur, might and possibly may be carried to a higher perfection.

And we hold that the mediæval sculptors, although they never reached the perfection of physical beauty displayed by the works of the Greeks, yet from the fact of a spiritual and mental beauty being aimed at in their works, they set before their minds a far nobler aim and a far more exalted intention than did the Greeks. Still, as far as the Greeks intended to go, and as far as mere beauty of external form is concerned, much of their sculpture is absolutely perfect.

We have alluded to the wonderful knowledge of optics possessed by the Greeks, and this is shown by the remarkable way in which they corrected optical illusions in their buildings by, instead of making them straight, giving their lines the most delicate and subtle curves. In order that our readers should thoroughly understand what we mean, we must remind them that objects under certain conditions of light and shade are apt to deceive the eye as to their exact form and size. Strangely enough, this is more the case in hot, sunny climates than in colder, greyer, northern countries. Now, the Greeks knew, either from experience or experiments, we cannot tell which, that a column standing out against the light looked thinner in the middle than at the top or bottom. As a test of this, let any of our readers take a round ruler and hold it up in front of a lamp, between themselves and the light, and they will see that the light of the lamp seems to encroach upon the middle of the ruler, making it look thinner in the middle than at the ends. This is exactly the effect that the sun has upon a column, and in order to avoid it the Greeks made their columns swell out in a very remarkable way. This is called the “entasis” of the column. As a rule the column is carried up two-fifths of its height straight, from which point it curves in a very delicate manner until it reaches the capital. So thoroughly did the Greeks carry out this principle, that the corner columns of the Parthenon are nearly straight on the side which tells out against the building, and strongly curved upon the sides which tell out against the sky. Not only is this the case, but even the sides of the building itself slightly curve out in the centre, and this appears to be



THE PARTHENON.

F. THELWICK

more the case on the south side than on the north, because the greater light would naturally be on the former side. The Greeks appear to have had no taste whatever for stone surfaces; they whitewashed all their stone temples, and then painted them over with delicate lines of red or blue. Their marble buildings they dyed a kind of transparent mauve colour, and sometimes a delicate orange. The arrases and projecting members were highly burnished or gilded. In some cases thin plates of metal and precious stones were used to enhance the brilliancy. Between the columns the most gorgeous and sumptuous draperies were suspended, and the temples were surrounded by cool and refreshing groves, of the darkest cypress, the fragrant bay, and the silvery olive tree, beneath the shade of which rippled exquisite fountains overflowing their pure marble basins, in which were reflected the beautiful faces and graceful limbs of a world of statued gods and goddesses. One can well imagine the exquisite picture which one of these temples would present to the eye, with its tinted marble columns and architraves blazing in the sunshine, every arras and moulding telling out like a line of liquid fire, with the whole mass of the architecture gleaming out against the dark blue sky or the purple range of distant mountains, with, perhaps, a lovely glimpse of the blue Ægean in the distance. We can well imagine enthusiasm for Greek architecture with these surroundings and circumstances; but what can we say of the same thing when represented to our view by such buildings as the British Museum or St. George's Hall, Liverpool?

What would any ancient Greek say to these? The first thing he would certainly do would be to call for innumerable pails of whitewash so as to obliterate some of the dirt. What on earth would he think of the greasy columns of the soot-begrimed entablature; the slimy, muddy basements and pavements; the general air of smoke, dirt, and draggletail; the eddies of dust, torn paper, shavings, and other filth, which seem to have taken possession of the great porticoes, as if they had a right to be there. In vain would he look for the exquisite statues. They would possibly be represented by a policeman or two in dingy uniform. If he did discover a fountain, it would be a wretched dribbling kind of concern reserved for the manufacture of mud. In place of his purple mountains he would find nothing but chimney pots; and the deep blue sky of Greece will be represented (or misrepresented) by the murky, soot-laden atmosphere of London or Liverpool. What is the use of telling us that these modern buildings correctly represent ancient Greek structures, even down to "diameters," "modules," and "minuets," when the whole circumstances of their existence are as much changed as if they were in a different element. However beautiful Greek architecture may have been in its palmy days, imitations of it in a northern climate like ours—in our busy, smoky, manufacturing towns—are outrageous and ridiculous; and, for people who pride themselves upon practical ideas, what is to be said of using in England for our public secular buildings a style which is, in the first place, purely religious, and that belonging to a religion as far removed from that of Englishmen as can well be conceived; or, again, working in a style which neither admits of chimneys nor windows? One must certainly admire the extraordinary ingenuity with which our modern Grecian architects get over these difficulties. As an example, we once saw a chimney pot formed by a statue of a nymph holding a vase in her hand. The smoke coming out through the vase had blackened her nose. It gave one the impression that she was smelling some compound that was so very unsavoury that it had absolutely turned her black

in the face. We have not passed this building lately, but we trust that the unfortunate nymph in question has had her nose whitewashed.

We must ask our girls not to be too frightened if we say a few words upon three very ancient styles of architecture. We promise that we will not detain them long, but it is necessary that they should read this part of the subject in order that they may understand the various styles of masonry which are now in common use, and how that most marvellous invention, the arch, thoroughly revolutionised architecture. The three styles to which we refer have been called by modern writers the "Cyclopean," the "Palasgic," and the "Etruscan." It is not worth while in a mere architectural treatise like the present to draw any fine distinction between the two first of these styles, therefore we will just consider the "Cyclopean" and the "Pelasgic" as one style. Remains of these very ancient styles of architecture are to be met with in parts of Greece, Asia Minor, Italy, and Sicily. The buildings are of stone, constructed in a very peculiar way; the stones are not laid in regular courses, but are broken into polygonal shapes and fitted together like a puzzle, each angle fitting closely into the space made by the adjoining blocks. (See A, fig. 2.) Sometimes large stones are used and the interstices between them filled up with smaller ones. No mortar is used in these walls. This kind of construction when used, as is now the case, with mortar, is called "random-jointed masonry," and is only used by us for coarse walling stone or "rubble," such as Kentish-rag, &c., but never for wrought stone, which is laid in courses. In different parts of England and Ireland different expressions are used to signify the various modes of jointing stone. In the south of England and London, the word "Ashlar" always means squared and closely-

jointed stone laid in a level bed, but in Ireland, and we believe in Scotland, the word "Ashlar" is used in a different sense; and in a trial which took place a short time back in Ireland, an English architect disputed the Irish builder's claim for extras upon the ground that he had charged extra for "beds" and "joints" (to the stone work). The judge was quite unable to understand this singular claim, and asked the late Mr. Butt, M.P., who happened to be one of the counsel, if he could explain this dispute about "beds and joints." That gentleman, with a ready wit so peculiar to Irishmen, answered, "My lord, I am thinking that it must mean board and lodging!" As this irregular kind of construction has existed through all ages down to the present time, it shows the influence which these early styles have had upon architecture. The Pelasgi and all their descendants, both in Asia Minor, Greece, and Italy, also used the ordinary wall construction. They, however, seem not to have built with mortar, even when the stone was laid in horizontal courses; possibly the joints may have been filled with mud or clay, which has been washed away. These Pelasgic buildings were probably the origin of Greek architecture, to which they bear a rude resemblance. Unfortunately, only such buildings as town walls, gates, tombs, &c., exist; we have no remains of temples. One of the most interesting buildings of the style is the "Treasure House at Mycenæ;" this consists of a circular structure, covered with an arched or domical roof, the arch being pointed in form like a gothic arch (See B, fig 2.) We must, however, point out that this is not a real arch, because the stones which form it are simply laid in horizontal courses, each one projecting a little beyond the lower one, so that they approach gradually nearer and nearer together until, in the top



THE ARCH OF TITUS.

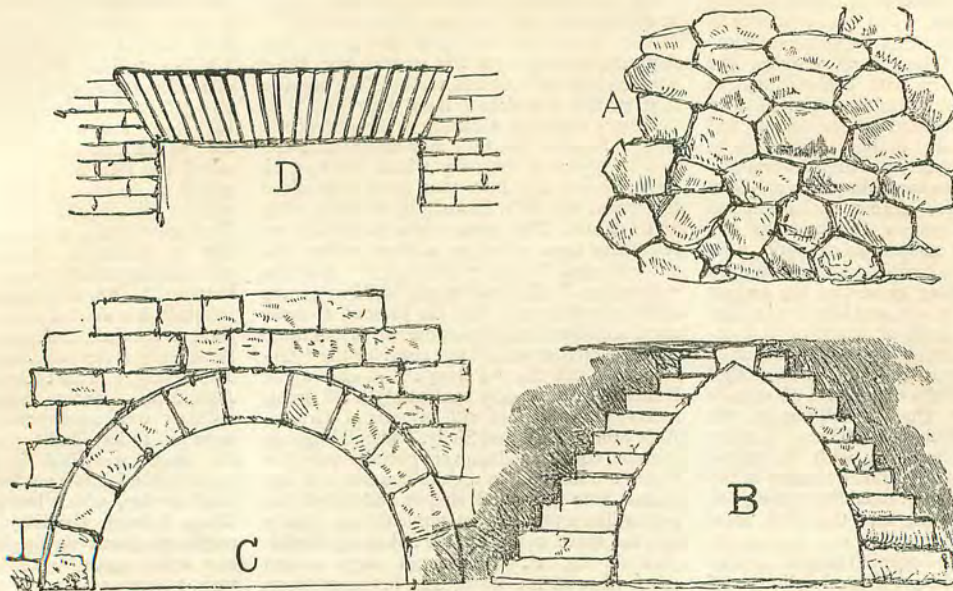


FIG. 2.

course, they meet. The lower edges are then shaved off, so that, seen from below, it has the appearance of an arch; though, if our readers will compare figures B and C, they will see the difference between the real arch, in which the stones or bricks radiate, and this pseudo-arch, in which they do not. Now, it is well to bear this in mind, because travellers tell us that "arches" are found in the ruins of ancient cities in Persepolis and Nineveh, Ethiopia, &c., but without they have carefully examined the construction and illustrate their observations with careful drawings showing it, in all probability what they have seen are these false arches.

We are now come to consider the "Etruscan Style," and here we are met by a very serious difficulty. It is the fact that we know absolutely nothing whatever of the Etruscan language, so that although the buildings are often inscribed, the inscriptions are a dead-letter to us. It is, of course, possible that future philologists may rediscover this old language just as M. Boussard discovered the Rosetta Stone, and opened to us the whole history of Egypt, which before his time was a blank; but until this happens all that we may state concerning Etruscan art is pure conjecture. The Etruscans appear to have derived their art from Greece or from some source common to themselves and the Greeks. The remains of their buildings are scanty, and confined to city walls, gates, and tombs. Some of these gates, like that, for instance, at Perugia, have arches; but what is the date of these arches we are unable to say—whether before or after the Roman conquest we know not. That the Etruscans were possessed of considerable artistic skill is evident. Their beautiful vases which are from time to time dug up would alone prove this, and they probably invented the "Tuscan order" of column, and were possibly the first people to use the real arch. It is evident either that they taught the Romans the use of the arch or the Romans taught them—it is impossible to tell which, and it would be useless to argue the point in the absence of any positive evidence either one way or the other.

It is generally assumed that the Romans copied their architecture from the Greeks. Now, although this is undoubtedly true with regard to their temples, yet it does not hold good with regard to their secular buildings,

and it may even be doubted whether Greek architecture did not exercise a bad influence upon the Roman style. It is true they obtained from the Greeks those porticoes about which so many writers rave, but on the other hand there can be no doubt that the Romans, who knew the use of the arch in very early times (certainly in the times of their kings), would have developed a much more truly arcuated style but for their perpetually copying Greek porticoes. Whether the Romans invented the arch, the dome, the barrel and cross vault or not, yet it is evident that they were half afraid of showing these inventions, which under bold, freer, and more daring architects were destined at a later period to completely revolutionise architecture and give it a new life. The Roman temples are remarkable examples of what we have pointed out in speaking of the origin of architecture. We there stated that the trabeated or beam-roofed architecture was universally used for pagan temples, and amongst the Romans so remarkably is this the case, that although this people used the arch freely in their military and secular works, we scarcely ever find it used in their temples—in fact, never until the decline of the Empire. This is very singular, and is only to be accounted for upon the supposition that they considered the arch inconsistent with their peculiar form of worship. There can, however, be no doubt that the Romans never regarded the arch as an ornamental form of construction, because in their more ornamental secular buildings, especially their triumphal arches, they attempted to withdraw the eye as much as possible from the form of the arch itself by enclosing it between pilasters or columns, which do not support the arch itself, but simply a useless Greek entablature above the crown of the arch. It is almost inconceivable to us that a people who understood architectural construction so well as the Romans should have gone out of their way to invent such an elaborate sham as this, and for this reason we turn away from the buildings in which they perpetrated feeble imitations of the Greeks to examine the dignified and robust architecture which they themselves invented, and which we see exhibited in such works as the great aqueducts, whose solemn ruins and lofty arches stretch away from the city of Rome for many miles across the desolate Campagna or the

superb *Thermae*, whose great barrel vaults still attract the wonder of the spectator as he gazes upon their gigantic ruins.

The Romans excelled in architecture just where the Greeks failed; that is to say, in construction. So grand was their construction compared with anything that had gone before that we pay little heed to the mere ornamental details of their buildings, and their exclusively useful works are those which principally attract our attention. Amongst these the great sewer, or main drain, of Rome—the "*Cloaca Maxima*"—is a most interesting example. It dates certainly from the time of the kings, though why architectural writers class it amongst "Etruscan works" we are at a loss to conceive. If there is no better authority or reason for the classification of other buildings under the title Etruscan than there is for the *Cloaca*, one would be justified in classifying all so-called Etruscan buildings under the title of early Roman works. Almost cotemporary with the *Cloaca* is the curious little temple now converted into the church of "*Santa Maria Egyptiaca*." This is a very interesting little building, because it is a perfect Greek Ionic temple; and, comparing this and the *Cloaca*, we see that the Romans from the earliest period had two distinct styles of architecture and construction—the one ecclesiastical and the other secular, an arrangement which seems to be gaining popularity in our own time, when we see Gothic churches and Classical houses being built side by side.

Another invention of the Romans in building was what is called the "flat arch," or "skew-back arch," which is represented in our diagram, fig 2 D. Although this is in reality an arch, because it possesses all the constructive properties of an arch, it presents the appearance of a beam or lintel. The only way we can account for the introduction of this singular feature is the fact to which we have previously alluded: that the Romans, while valuing the arch for its constructive qualities, did not consider it beautiful in form. This flat or skew-back arch has come into very common use of late years, and is to be seen over the windows and doorways of nearly all our modern English brick houses. In the hands of our "jerry builders" it is not only ugly, but constructively worthless, as in nine cases out of ten it will be found to be broken after it has been put up three or four months.



## ARCHITECTURE; OR, THE ART AND HISTORY OF BUILDINGS.

By H. W. BREWER.

## PART III.—THE CHRISTIAN ERA.

HITHERTO the whole of the architecture which we have had to consider has been of pagan and heathen origin. We have shown that the Semitic race and their descendants had no distinctive architecture of their own. Even Solomon's temple appears to have possessed very little that was original, and was certainly, from an architectural point of view, inferior to the temples being erected in Egypt and other heathen countries. But now we approach an epoch at which all the glories of pagan architecture were to be far outstripped by the sublime edifices erected by Christianity in honour of the one true God. Great as was the magnificence of the Parthenon, perfect as were its finish, its sculpture, and its delicacy of line, noble as were the great Egyptian temples with their vast columns and huge solidity, yet all disappear before the lofty grace, aspiring loveliness, awe-inspiring dignity of a great Gothic cathedral. For the first time in the history of the world architecture has to preach in brick and stone a gospel of love, of purity, of self-sacrifice, of sublime aspirations, of humility and freedom. The heavy trabeated architecture which seems

to bind men's thoughts down to this earth is to make way for the heaven-pointing spires, pointed arches, and vertical lines of the mediæval styles. The buildings are no longer to consist of stolid, motionless blocks of masonry, but are to give the impression of life and motion, ever rearing itself upwards to the sky. In classical buildings and works of pagan nations, architecture is always passive and motionless; in mediæval and Christian works it is active and full of life. It must not, of course, be supposed that Christianity immediately effected this change in architecture; on the contrary, it was the result of many centuries of toil and study. It was long before the ancient features of constructive elements of classical architecture were to give way before the new principles and thoroughly original constructive theories of the Middle Ages. We shall now trace step by step the various stages which Roman architecture underwent before the pure Gothic of the thirteenth century was developed out of it.

At the commencement of the Christian era the struggle between the Græco-Roman style, with its imitations of Greek porticoes, and the more purely Roman style with its simple arcuated construction, was going on all over

the Empire, and when the Roman Empire became Christian, there was a question which of the two styles would be adopted for Christian churches. At first the trabeated style seems to have been in favour, probably because most of the early Christian churches were simply the old pagan temples converted to the service of the true God, with as little alteration as possible. However, one may justly suppose that from the early Christians, during the times of persecution, having held their worship in the catacombs, a certain feeling of familiarity with arcuated architecture and cavernous forms of building would have accustomed them to the more purely Roman style, and hence we have again brought before our mind the origin of the Christian form of architecture—that is, the cave. Of course, however, for the first century or two after the conversion of the Roman Empire existing architectural ideas had great influence, and thus we see the earliest Christian churches rather verging towards the trabeated than the arcuated style. As we have previously stated, pagan temples were very frequently converted into churches with very slight alterations. This was done by simply using the "cella," or sanctuary, of



ST. MARK'S, VENICE.



WORMS CATHEDRAL.

the temple as a place of worship, leaving the porticoes unused. This is the case, and may still be seen at the churches of Santa Maria, Egyptiana, and St. Lorenzo in Miranda, at Rome (see Fig. 1), but as this gave such a very small place for public worship, the walls of the cella were pulled down, and the spaces between the columns of the portico walled up, as is still to be seen in the church of St. Nicolo in Carcere, Rome, and many other ancient churches (see Fig. 2). When this was still found too small for public worship, the columns of the side and end porticoes were left standing, and the walls built outside them, so that the columns, instead of being external to the church, became internal, the spaces between them and the new walls forming aisles or passages, and the internal arrangement of the building thus assumed the form of a basilica (see Fig. 3) rather than of a temple, as is the case at Sta. Maria in Cosmedin (the "Bocca della Verita"), Sta. Francesca Romana, etc. This form of church has received the name of basilica. It was a favourite theory with writers thirty years back that the Christians converted the old basilicas into churches, and that this accounts for the ancient churches being called basilicas; but, unfortunately for this theory, we cannot find a single example of a basilica being converted into a church in early times. Then, again, no one has yet been able to tell us exactly what a basilica really was in pagan times. The word basilica is the same as the Latin *reggia*, and simply means a portico. In the Scriptures we find the expression, "The king sat in the porch giving justice." Probably any buildings with internal columns would have been called basilica by the Romans, and hence they gave the name to Christian churches. After a short time the Christians seem to have become dissatisfied with these buildings, adapted from their pagan ancestors, and in the East—probably in Byzantium itself—a new form of church arose, which consisted of a number of cubical or polygonal compartments covered with domes. How this form of building originated it is difficult to say, but there can be little doubt that the architects who invented it were of Greek nationality. It spread with rapidity all over Greece and the East. The great church of St. Sophia at Constantinople was (before it was modernised by the Turks) its greatest glory; the smaller but more perfect church of St. Mark's, at Venice, which was, in all probability, copied from St. Sophia, gives us the best idea of this style of ecclesiastical architecture. It will be noted that the cavernous appearance of this building is very remarkable indeed, notwithstanding its richness of decoration. The earlier portion of the cathedral at Aix-la-Chapelle is another example of this style. The circular baptistries of Italy and the round churches of England, France, Germany, the modern Russian churches, and the Mahomedan mosques are all to be traced to it. The Latin Church, however, does not seem to have favoured this form of ecclesiastical edifice for general use in places of worship, and thus we find it, with few exceptions, confined to baptistries, monumental chapels, and pilgrimage churches, and the like; but for parochial, cathedral, and monastic churches, the oblong basilica plan was retained and ultimately developed into the Gothic church, with its nave, aisles, and chancel.

The changes which the Christian basilica underwent as time went on were, firstly, arches were used instead of the straight lintel, or entablature between the columns, as we see in the basilica of St. Paul at Rome, St. Apollinare at Ravenna, and more perfectly still in the beautiful cathedral of Pisa.

Later on, about the tenth century, we find the old wooden roof of the basilica gives place to the arched roof, called "vaulting," from its being composed of a

series of vaults, and the style or styles called Romanesque, Lombardic, Saxon, and Norman became developed. The Lombardic and Romanesque styles were really nothing more than geographical varieties of the same architecture.

When the old basilica type of church, with its heavy beam roof and almost innumerable columns, often only a few feet apart, had ceased to satisfy the lofty aspirations of Latin Christianity, when the Greeks had already inaugurated a new style of church architecture, only one of two courses was left to the Latins—either to adopt the Greek style or to improve upon the basilica form of church. After considerable hesitation they adopted the latter alternative; and it is most fortunate that they did so, because, owing to the oblong plan being indefinite as to length, it produced the glorious Northern cathedral, with its "long-drawn" nave and aisles, deep transepts, and beautiful varieties of form and outline; whereas the Greek cube form of church which became prevalent in Greece and the East was incapable of any great development. The length being circumscribed by the width of the square or polygonal compartments, it was found impossible, for instance, to reproduce these without monotony, and each cube necessarily being the same size, little feeling of scale or variety could be obtainable. In the East, however, where they seem rather to have favoured the erection of small churches, this cubical form of building suited well.

The vaulted basilica churches soon became common over the whole of the North of Europe, and perhaps two of the most important examples remaining in an unaltered condition to our time are the Cathedrals of Speier and Worms, in Germany. The former of these dates from the eleventh century; it is a vast and dignified church, the largest purely Romanesque building in existence, remarkable for grandeur and simplicity, but exceedingly plain, being almost devoid of mouldings, and entirely so of sculpture; it has recently been covered with frescoes by modern German artists. The Cathedral of Worms is almost a reproduction on a smaller scale of that of Speier; though more elaborate and ornamental, it does not possess the dignity and grandeur of the former church. In France the churches at Caen, especially St. Stephen, which was built by William the Conqueror, is a most noble type of Romanesque work; it is quite different in character to the two former buildings which we have named, and possesses the characteristics which we meet with in our Anglo-Norman Cathedrals, such, for instance, as the naves of Peterborough, Ely, and Norwich, of which it may not unjustly be regarded as the parent. This Norman style, with its varied forms of columns, moulded and recessed arches and vaulting, soon superseded the old Saxon style which had previously existed in this country. Of this so-called Saxon style few examples now exist. The tower of Earls Barton Church, Lincolnshire, Sompling, Sussex, and St. Michael's, Oxford, are fairly good examples. Unfortunately we know very little about the dates of Saxon buildings, but in all probability few if any of them date farther back than forty or fifty years before the Norman Conquest. They are singularly rude and barbarous, and show how very much our Saxon ancestors were behind the Italians, French, and Germans in architectural skill. Some writers think that most of the so-called Saxon buildings existing in England are really later in date than the battle of Hastings, and that they were erected by Saxon workmen but in Norman times. The Saxon builders do not appear to have understood "vaulting" sufficiently well to have roofed over any large space with stone, and for this reason alone the style soon gave way before the Norman, which of all early styles

was the most advanced in this respect. As vaulting has had such an immense influence upon the various developments of Romanesque and Gothic architecture, we must say a few words about it, in spite of being a little dry.

When the arch came into constant use, as it did at the decline of the Roman Empire, it became evident that if the smaller spaces were arched over from column to column the larger spaces looked inconsistent when covered with a flat roof, and the continuous arched roof called a "barrel vault" was introduced (see Fig. 4), and was in use for many centuries. The chapel of the White Tower, in the Tower of London, is an excellent example of the simple barrel-vaulted roof. There are, however, several grave objections to this form of roof. In the first place, it is enormously heavy, and requires very thick walls to support it, not only on account of its weight, but also its "thrust." As we are anxious that our girls should thoroughly understand what we mean by "thrust," we will explain that an arch is really a bow, and is elastic. Let any of our readers take a piece of whalebone or cane, bend it into an arch or bow, and tie the two ends with a piece of cotton about half the length of the whalebone or cane. Now it will be found that the two ends of the piece of cane or whalebone do their utmost to part company as far as possible, and stretch the string (A, B) very tight. Now let our reader then place two books one at either end of the bow at right angles to the arch so formed, and cut the cotton; you will find that there is a strong pressure exercised by the ends of the bow against the books—so much so that it will throw the books down, if they be not heavy. Now this is exactly what takes place with buildings, and this force which an arch or bow exercises against the walls or objects upon which its ends rest is called "thrust," and it is the various methods invented by mediæval architects to resist this "thrust" which have produced those exquisite features—the buttress, the flying or arched buttress, and the pinnacle. When our girls look at some beautiful cathedral—Amiens, for example—with its flying buttresses and forest of pinnacles, let them recollect that all these are caused by this troublesome property of an arch or bow called "thrust."

Now let our girls reconstruct the model according to our diagram, Fig. 5. But this time let her place two books at right angles to the former ones at C and D, and she will find that when the cotton is cut the ends cannot knock down the books as they did before. Why? Because the books (C and D) act as counterforts or "buttresses." Should they, however, be insufficient to prevent the whalebone arch from throwing down A and B, put a lead weight on both C and D at E and F, and it will be found that C and D remain firm and steady. Now this is exactly the use of a Gothic pinnacle; it is a weight placed upon the buttress to steady it by exercising a downward pressure.

The "cross vault" is composed of two vaults or continuous arches cutting through each other at right angles (see Fig. 6). The advantages of the cross vault over the barrel vault are that, instead of having a continuous thrust all the length of the wall, the thrust is confined to certain points in the length of the wall which can be counteracted by buttresses; it also allows of the windows being higher up and larger than is the case with the barrel vault. Now there is no difficulty about constructing the cross vault over a space which is perfectly square; but when the space is oblong a difficulty at once arises, and it is precisely this difficulty which probably led to the adoption of the pointed or Gothic arch. If the space to be vaulted over is oblong, it will

be found that the two vaults which intersect each other cannot possibly be of the same size, and the vault which has a smaller diameter will describe a smaller semicircular arch against the two walls than will be the case with the larger vault.

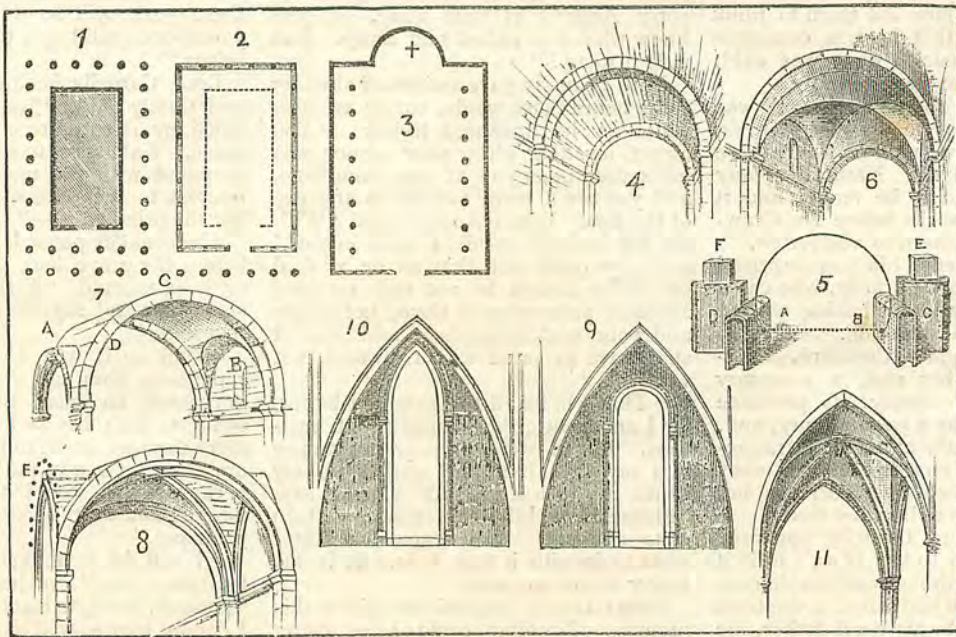
Now look at Fig. 7, and you will see that the arches A and B are lower than the arches C and D. But suppose we want to make the arches A and B the same height as C and D, it is evident that the vaults A and B must be either oval or pointed. At first they were generally made oval (see the dotted line E, Fig. 8), but it was soon found that the pointed arch was easier of construction and looked better.\* When these ends of the pointed vault had windows or arches under them it was evident that they had to be made pointed as well. By looking at Figs. 9 and 10 it will be seen the effect of the round-headed window under the pointed arch is very displeasing; and moreover it leaves an ugly black shadow space above the window; whereas the point of the window running up into the pointed arch in Fig. 10 looks far better, and avoids the ugly dark space above the window. The perfected Gothic vault is shown in Fig. 11.

question whether the Gothic style would be come a round arched or pointed arched style. In Germany and Italy the round arch seems to have held its own, and continued to be used right through the Middle Ages; thus in the cloisters of the cathedral of Treves we find Gothic windows with all their "traceries" and "lights" round-headed; in England and France, however, the pointed arch soon gained a decided victory over its rival.

Perhaps it may be advisable here to say a few words about the various theories concerning the introduction of the Gothic arch. That the form of the Gothic arch was known many centuries before it was used in Europe is certain, because we find it in cisterns and tombs in Egypt, Syria, and Arabia, dating long before the Christian era; and the theory that it was discovered by making two semicircular arches intersect, as is so commonly done in late Norman work, cannot for a moment be held. Still less reasonable is the poetical fiction that Gothic cathedrals were copied from an avenue of trees, because it so happens that it is not the early but the later Gothic churches which bear this fancied resemblance to an avenue of trees. That it was introduced

"Alt Deutsche" style, and this in face of the fact that the earliest pure Gothic church in Germany—the Liebfrauen Kirche at Treves—was commenced in the year 1227, that is to say, nearly sixty years after the erection of the great cathedral of Notre Dame, Paris, which was begun in 1168, and is in all probability the first cathedral that was erected in the pure Gothic style. There are, however, in France portions of churches and cathedrals which are quite Gothic in character which date back a few years earlier even than this. In Picardy and the Isle of France the Gothic style may be said to have become thoroughly established by about the year 1175; in Normandy, about ten or fifteen years later.

England was rather later than France in adopting the pointed style. Our earliest purely Gothic cathedral is Salisbury, which was commenced in 1220 and completed, with the exception of the tower and spire, in 1260. Some of the beautiful abbey churches in Yorkshire, however, exhibit the Gothic style in great perfection. The exquisite, though, alas! ruined, choirs of Rivaux and Fountains Abbeys were commenced in 1199 and 1200 respectively. Probably the next country to adopt



There are, all over Europe, very numerous examples of buildings, more especially churches, with both round and pointed arches. They usually date from the twelfth century, and are exceedingly interesting, not only on account of their own remarkable beauty, but also from the light which they throw upon the history of the introduction and gradual perfection of the pointed arch and Gothic architecture generally. The splendid choir of Canterbury Cathedral; the ruined abbey of Glastonbury, in England; the glorious cathedrals of Chartres and Sens, in France; those of Bamberg and Limberg, in Germany; Avila, in Spain, offer such notable and magnificent examples. In the churches and buildings of this date we find a dignity, a grandeur, and a solidity, combined with severity and purity of detail, which make many architectural writers prefer them to the more sumptuous and graceful churches of later times. It is curious, in studying the buildings of this date, how evenly the balance is often held between the pointed and the round arch, and it was really a

from the East by the Crusaders is very unlikely; in fact, that it was introduced from the East at all is most improbable, because, if it had been, we should have found it first making its appearance in Hungary, Transylvania, Poland, Bohemia, and Russia; but it so happens that these were just the very last countries in Europe to adopt the pointed arch. In fact, we find churches in Transylvania and Servia erected with semicircular arches in a style resembling our Norman work as late as the fifteenth century.

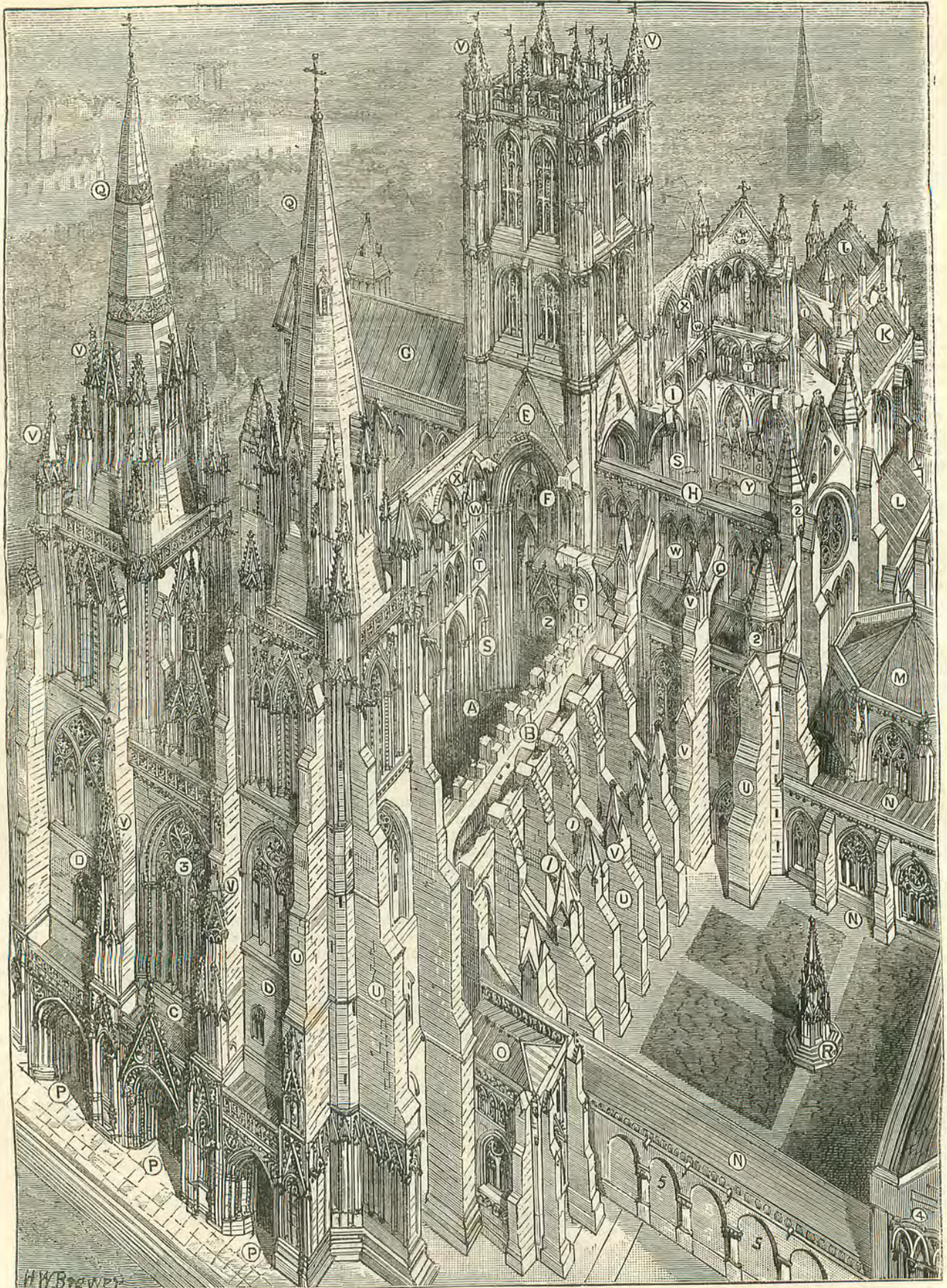
All available evidence seems to go to prove that the Gothic style originated and underwent all its earliest developments in the north-west of Europe, and penetrated slowly and by degrees to the south and east. With regard to the pointed arch, the most reasonable assumption is that it was thoroughly well known to builders of all ages, but they considered the semicircular arch the more convenient until the difficulties respecting the cross vault to which we have previously alluded brought the Gothic form of arch into use.

Some German writers have claimed for their country the invention of the Gothic style, and have absolutely gone so far as to call it the

the Gothic style was Spain, evidently under French influences, and possibly with the assistance of French architects. The two superb cathedrals of Burgos and Toledo bear a strong resemblance to Rheims and Amiens, in France, and it is very interesting to compare their dates. Rheims was commenced in 1212; Burgos in 1221; Amiens, 1220; Toledo, 1227. There are possibly Gothic buildings of a still earlier date existing in Spain, and it must be acknowledged that the Spanish Gothic churches are very nearly equal in dignity and artistic development to those of France and England, whereas, in point of size and richness of detail, they are not surpassed by the churches of any country. Unfortunately we know little about these superb buildings. The late lamented George Edmund Street has, however, in his book about Spain shown enough to make us greatly regret that architects and art writers who have visited that country should have confined their attention to such pretty trivialities as the Alhambra and other Moorish buildings, and should have overlooked the far more grand and dignified mediæval architecture of the Christians.

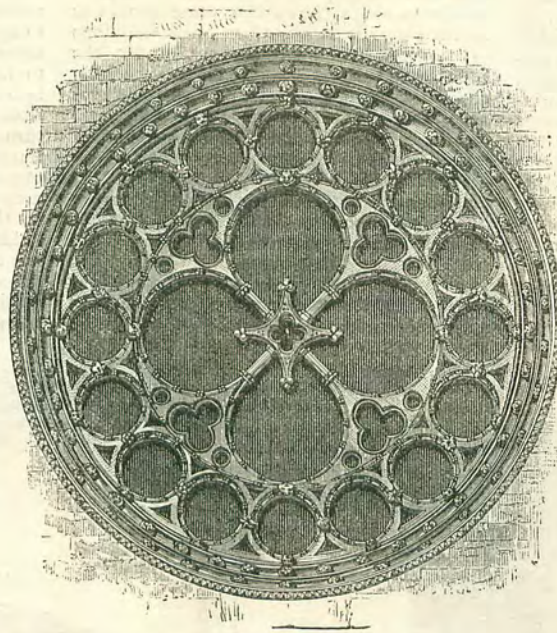
(To be continued.)

\* The late Professor Whewell and Sir Gilbert Scott both held this theory of the introduction of the pointed arch into mediæval architecture.



A GOTHIC CATHEDRAL.

To obtain a knowledge of the technical terms used in describing the various parts of ecclesiastical architecture, compare the above illustration with the Index on opposite page.



WINDOW IN LINCOLN CATHEDRAL.

## ARCHITECTURE; OR, THE ART AND HISTORY OF BUILDINGS.

BY H. W. BREWER.

## PART IV.—THE STYLE OF THE THIRTEENTH CENTURY.]

## INDEX TO DRAWING, SHOWING THE VARIOUS PARTS OF A GOTHIC CATHEDRAL.

- A. The Nave. From the Latin *navis*, a ship. The style in this instance is Early English.
- B. The Aisles, or side passages to the Nave.
- C. The West Front or Façade. Style, Decorated or Second-pointed.
- D. The Western Towers. Style, Decorated or Second-pointed.  
(Gothic churches are always built east and west, and the principal front is always to the west.)
- E. The Lantern or Central Tower. Style, Perpendicular.
- F. The Crossing—where the nave, choir, and transepts all meet, and form a cross; hence the word crossing.
- G. The Transept or Transverse Nave. Sometimes wrongly called the "cross aisle." Style, Early English.
- H. The corresponding Transept to the south.
- I. The Choir or Chancel. Early English.
- J. The Lady Chapel. This is not always East of the choir, though that is its usual position.
- K. L. L. Side Chapels. Early English.
- M. Chapter House. Decorated Geometric.
- N. The Cloister. Decorated Geometric.
- O. The Porch. Decorated Geometric.
- P. The Western Portals. Decorated Geometric.
- Q. Spires. Decorated Geometric.
- R. A Cross or Calvary. Decorated Geometric.
- S. The Pier Arches. Early English.
- T. The Triforium or Gallery over the Aisle. Why so called is unknown. Early English.
- U. Buttresses. To resist the thrust.
- V. Pinnacles.
- W. The Clerestory. Probably *clear story*, because it rises clear of the aisles. Early English.
- X. The Vaulting, or stone-arched ceiling; called vaulting from its being composed of a series of vaults intersecting. It is sometimes constructed of timber, as in the choir of St. Albans Abbey, and occasionally of lath and plaster, as at York Minster. Early English.
- Y. The Reredos or Altar Screen. Decorated.
- Z. The Rood Screen or Choir Screen. In some cathedrals there were two screens: one called the Rood Screen, and the other the Choir Screen or Pulpitum.
1. Flying Buttresses, or Arched Buttresses, constructed to resist the thrust of vaulting.
  2. Turrets or large pinnacles.
  3. The Tracery of a window. In this case the window is of the Curvilinear-Decorated style, all the bars of the stonework being curved.
  4. Intersecting Arcade. Late Norman.
  5. Plain Norman Arcade. Early Norman.
- N.B.—The vaulting and outer roofs of the nave, choir, south aisle, and south transept are removed, so as to show the interior of the building.

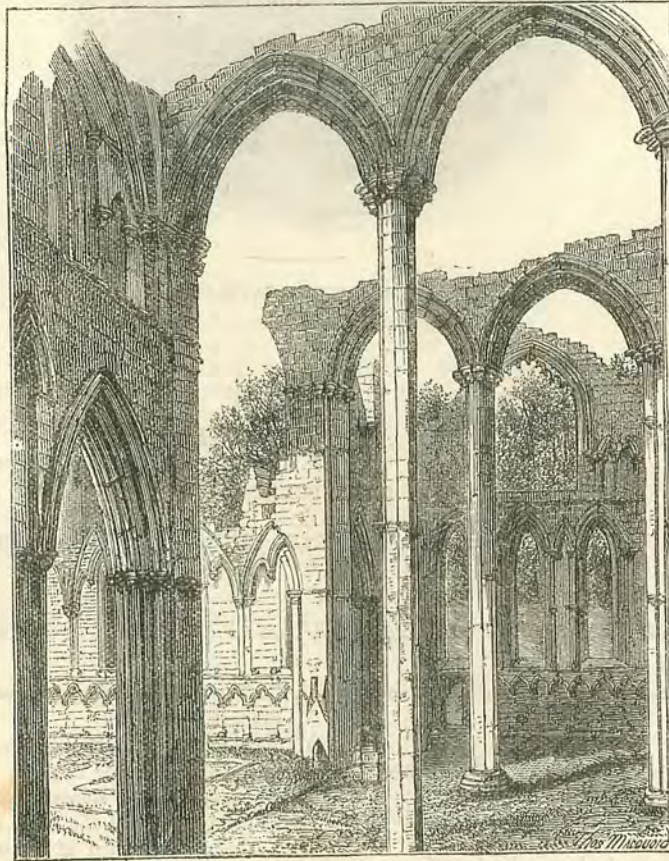
IN a thirteenth, fourteenth, or fifteenth century Gothic church every portion of the building assists in supporting something else; thus the aisles help to support the nave; each arch by its thrust counteracts the thrust of the next arch; the walls of the side chapels act as abutments against the walls of the aisles. The traceries of the windows, in addition to protecting the stained glass and keeping it rigid, help to strengthen the great arch of the windows. The various little shafts or columns arranged in clusters help to distribute the weight of the superstructure, and thus relieve the greater columns or piers of some portion of the superincumbent weight. The towers are usually placed in such a position as to resist the accumulated thrust of all the arches along the sides of the nave. The clerestory windows act as relieving arches, and throw off a portion of the weight from the greater arches beneath; thus every feature in a genuinely constructed Northern Gothic church not only does its own work, but helps its neighbour, and thus becomes the type of a good practical Christian. In Classical buildings, on the other hand, each portion of the building is independent of its neighbour; the thrust of each arch is counteracted by its own pilaster or piece of solid wall between it and the next arch, the proportions are more square, and the general construction far more solid than in Gothic buildings. In Italy, even during the Middle Ages, the architects never quite abandoned the Classical mode of construction, but applied their Gothic detail and ornamentation to it, consequently Italian Gothic buildings, even of the thirteenth and fourteenth centuries, were always more Classical than Gothic in general outline; they have low pitched gables, heavy cornices, and very strongly marked horizontal lines, and very frequently the arches which divide the nave and aisles are supported upon vast square pilasters, instead of Gothic columns or piers. Then, again, their buildings were generally constructed of brick, faced with slabs of marble, a mode of construction quite unknown to the Gothic architecture of other lands. All this gives Italian Gothic a strange character, and even the exquisite sculpture, decoration, and magnificent material used often fail to compensate for the aspiring loftiness, graceful outline, and rich effect of light and shadow which distinguish the Northern Gothic cathedrals. Of course, in the Cathedral of Milan, and other buildings which are known to have been created by northern architects, many of the peculiarities of Italian Gothic are not so apparent.

Owing to the fact that each portion of a Gothic church helps to support something else besides itself, our readers will naturally infer that Gothic buildings can be erected with a far smaller amount of material than Classic ones—in fact, many of the most famous cathedrals in Europe contain less than one-fourth the amount of solid material which would have been used in constructing a Classical structure of a corresponding size. Another economy of material noticeable in Gothic buildings is the comparative small size of the stones which are made use of. It has even been said that "the most magnificent

Gothic cathedrals in Europe are erected of stones, every one of which can be lifted or carried by a single human being." This is slightly exaggerated as to fact, though it embodies the principle which mediæval architects had at heart that there should be as little servile labour about their buildings as possible. In ancient times, under the Greeks and Romans, but more especially under the Egyptians, vast numbers of slaves were employed in gangs to do the mere manual labour, and therefore no economy of labour was for a moment thought of. If one drove of slaves was worn out or smashed by the falling of some huge pieces of stone, or killed off, another lot was ready to be harnessed in their place. What mattered a few more backs being broken in raising a pyramid to the king? They were but slaves after all, and the only man to be consulted was their master, who lent them out, and must be

extent was this the case that if we look at the carvings in an old Gothic building we can tell the character of the minds of the men who worked upon them. Here we find the serious man introducing into a capital or corbel a grave, thoughtful face, with eyes which seem to look through the ages which have gone by since the sculptor who fashioned it has gone to his rest, and which still gaze and gaze on into the dim future, when we who wonder at it shall long, long ago have gone to ours. We turn round, and some grinning monster attracts our attention, the work of the satirical carver of the day. We wonder what it can mean? Is it some long-forgotten joke buried in the oblivion of the past? Is it some hidden sarcasm against his own time? Or is it a caricature of some friend or enemy? We know not. We look again, and find an exquisitely-carved wreath of oak-leaves or roses, the work of a mind pervaded with refinement and elegance. Is it a mere ornament, or does it mean something deeper? Did its carver merely make a copy in stone of some natural wreath, or was it as a tribute to some memory sweet or painful? Perchance the roses may record his dead child, or be an offering to the eyes of a living mistress. It may be a thanksgiving for some blessing received, or it may be a token of sorrow bravely borne; but there it is, hundreds of years after the sorrow has ceased or the joy departed!

One of the great charms of old Gothic churches is the individuality which marks their ornamentation, the way in which they are penetrated and permeated by human thought; this it is which gives them that air of mystery which alas! we can no longer imitate; it is not so much the actual external beauty which takes hold of our imagination so much as the heart that is in it all. The old builders and carvers had no penny newspapers, no debating clubs; they could neither read nor write, yet they were thoughtful, earnest, reasoning men, and their thoughts must have some outlet, their reason some scope for its display, and it is in their work that we find it. These old Gothic carvings were the concentrated essence of the workman's mind, the one thing in which he could breathe his ideas and perpetuate the record of his wrongs and grievances, or of his light-heartedness and contentment. And if we



FOUNTAINS ABBEY.

compensated for the loss of his human cattle! The great works of Egypt and other ancient countries literally stink of slavery and oppression, but it is far otherwise with Gothic buildings. They speak everywhere of high and noble aspirations, of freedom, of intellectual thought, of toil not dragged out of a man by force, or work done under the whip of a tyrannical taskmaster, but of skill and talent generously given for a high and noble purpose urged on by a strong and religious enthusiasm, and intense love of the work itself.

Most Gothic buildings of any importance were of course carried out from the designs and under the superintendence of the architect or "master mason," but still even the most subordinate workmen were left plenty of scope for original fancy or imagination, though restrained within decent limits. To such an

observe these characteristics in the details of the building, how much more are they apparent in the general aspect of the building! Let any of our girls enter Westminster Abbey by the west door, and examine the effect which the first glimpse of that glorious building has upon them; the feeling of reverence and veneration and mystery which it inspires is far more powerful than the wonder as to its size, or the beauty of its proportions and details. Now this is not the case with Classical or Renaissance buildings. Upon looking at the Parthenon, the beauty of line and proportion is the first thing that strikes one. Upon entering St. Peter's, Rome, or St. Paul's, London, most English people are disappointed because there is no mystery about them, and it is not until the mind becomes used to the dimensions of these vast structures that their grandeur and dignity

become appreciated. They may be more perfect as mere architectural works, and we fully appreciate the mighty genius of their architects, but they do not appeal to our minds in the same way as our old Gothic cathedrals do. This air of mystery so peculiar to Gothic architecture is, to a certain extent, but only to a certain extent, dependent upon that kind of subdivision of the parts of a building. Thus in churches we find them divided into a nave and aisles, chancel or choir, transepts, porches, towers, &c. And in height we generally find two or three divisions, as "pier-arches" and "clerestory." In large churches and cathedrals we have generally three divisions in height—the "pier-arch," the "triforium," and the "clerestory." Now, in order that our girls may thoroughly understand this, we give a diagram of a church drawn as if the building were partly taken down so as to show both interior and exterior. The references to this will give our girls the architectural term used for every portion of a cathedral or church in the Gothic style. (See diagram.)

The style called with us the "Early English," of which Salisbury Cathedral is so notable an example in its earliest developments, and Westminster Abbey of its very latest in England, is chronologically measured by the reigns of Richard I., John, and Henry III.

Our girls will doubtless ask how an Early English church is to be distinguished from a Norman, a Transitional, or a church or building erected in a later style. Well, there are three great tests, and our girls must, in order to apply these tests, look first of all at the windows, and ask themselves the following questions:—A. Are the windows round-headed or pointed? B. Have they tracery; and if so, of what description? They must then look at the arches, and ask themselves, are the arches round or pointed? What is the character of their moldings, and what ornaments or enrichments are introduced into the moldings? And in the third place, our girls must look at the columns and see—A. whether they are arranged in clusters, or whether they are single. B. Whether the core round which they are clustered is so arranged as to let them fit into a square or triangular recess, or whether the recesses are circular in form. C. Whether the core is itself a column, octagon or circular in form, or a series of square masses of masonry. D. Whether the little columns or shafts are cut out of the solid core, or whether they are isolated, and merely attached by capital, base, and possibly a band in the middle. We give these tests because they are the easiest to apply, but of course there are other proofs and tests of the date of a Gothic building—the masonry, style of workmanship, carving, sculpture, and use of certain materials. Firstly, with regard to the windows. A. If they are round-headed they are sure to be Norman or Transitional; if they are very sharply pointed they are Early English; if they are only slightly pointed they are nearly sure to be Transitional. If they have tracery in their heads, that is to say, if there are ornamental piercings in the stonework, or if the stonework forms circles or other shapes, the window is either Early English or belongs to

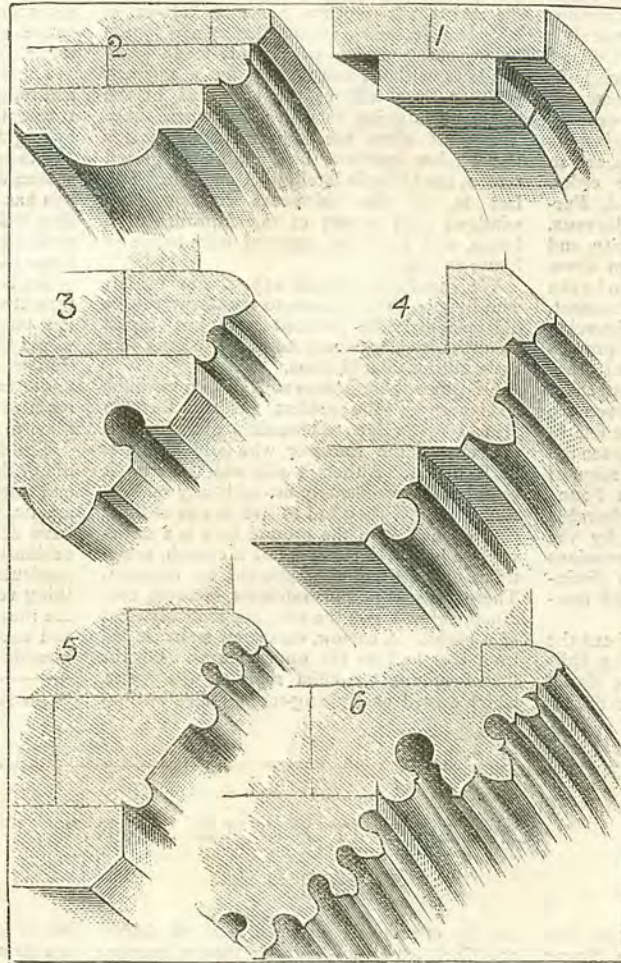
some later style. In order to settle this, see whether the tracery is formed by ornamental apertures pierced through a plate of stone in the manner of that shown in our illustration of Lincoln Cathedral, or whether it is formed of bars of stone. If it is "plate tracery," the work is certain to be Early English of the earlier part of the thirteenth century. If, on the other hand, it is "bar tracery," note whether the bars form circles alone, or whether they form other shapes, and also whether the circles are themselves filled in with other patterns in stone. If the circles are plain, the work is Early English. If there are other forms contained within the circle, note what they are. If they consist of simple cusps, forming a single trefoil, or quatrefoil, or cinquefoil, etc., the work may be either

style, however, we find the angles cut off, and the round or bead introduced at the angles, and some of the members of the arch cut into a semicircular form (see fig. 2). In the Transitional style we find hollows or channels sunk into the stonework, and occasionally the keel-shaped molding, in form like the keel of a boat (see fig. 3 and 4). In Early English style the moldings are very complicated and beautiful, and consist of beads, keel, and scroll moldings, all separated from one another by deeply-cut hollows, giving a rich effect of very decided lines of light and shadow round the arch (figs. 5 and 6). These deeply-cut hollows are a distinctive mark of the style.

The enrichments or little bits of ornament attached to moldings, especially those placed in the hollows, are most characteristic of the various styles of Gothic architecture. The zig-zag is peculiar to the Norman, the nail head to the Transitional period, and the dog tooth to Early English. The so-called dog tooth ornament is a flower, looking like four sweet almonds, arranged pyramidically. There are other ornaments which are not so distinctive.

The distinctive mark of Early English foliage is that its stalks are always shown growing up from the lower ring of the capital, called the astragal. These stalks are generally grouped together, and curve forward in a very graceful manner. The plants which they appear most to resemble are the wild parsley, sea-kale, and celery; the stalks are ribbed, thick, and rigid. This foliage, which is called "stiff-leaved foliage," is found at no other period than the end of the twelfth and the earlier part of the thirteenth century. The term "stiff-leaved foliage" is a misnomer; it ought to be "stiff-stalked." The leaves are very crisp and very much undercut. The shamrock and oak are also occasionally used (though rarely) in capitals. It should be noticed that the foliage of Early English capitals is never disposed in the form of a wreath round the capital, but is always vertical in its arrangement. It always resembles growing plants, never cut flowers; whereas in the later styles the reverse is the rule. A very interesting thing about Gothic foliage is the fact that Early English foliage generally represents the plant or tree in a budding condition—the leaves only just coming out; whereas in the Decorated, or Second-pointed, the leaves and flowers are in full bloom; and in the latest Gothic they are often represented as overblown, and sometimes as decayed and dying. In France and Germany during the very latest Gothic the plants represented in carving are often leafless, as though the leaves had fallen—as if the sculptors and architects felt that the style was moribund and its day had departed. This intense sympathy with Nature is to be found everywhere in Gothic art, and is one of those things which endears it to Englishmen in such a special manner.

Early English columns or piers are of three kinds; they consist of single octagonal or round columns, or of clusters of shafts arranged round a circular or octagonal column, or they are solid piers with channels or recesses cut out, into which the shafts are introduced. It



MOLDINGS.

late Early English or Geometric Decorated; at any rate it belongs to what is called the "Geometric period."

Now, with regard to arches. In Gothic architecture every arch has its moldings, that is to say, hollows or channels separated by cylindrical members, called beads, cut continuously along the edges of the stonework, forming a border or framework round the arch. Now, of all the tests as to date and style in a Gothic building, these moldings are the most certain, and a person who is well versed in moldings can never be mistaken as to the period to which a building really belongs. Norman moldings are very simple and early in the style consisting only of a series of squares following the courses of stone round the arch (see fig. 1). Later on in the



should, however, be noticed, as a distinctive mark of the style, that the shafts are rarely cut out of the solid pier, core, or column, but are composed of a hard kind of stone or Purbeck marble, and are only attached to the core of the column at the capital and base. This is occasionally the case in Transitional Norman, but is a mode of construction never met with after the thirteenth century.

Early English sculpture is remarkably noble and dignified, and it is said that Flaxman considered the figures in the west front of Wells and the Angel Choir at Lincoln worthy of the greatest period of Greek art; yet to show how little this style depended upon sculpture or any decorative kind of ornament, we must call attention to the remarkable fact that some of the very grandest and finest Early English churches were erected by the Cistercian Order—a religious order which, by its rules, entirely forbade the use of sculpture, carving, painted glass, pictures, precious metals; towers, spires, and organs were also forbidden; yet with all this the Cistercian Order built some of the most magnificent churches erected during the thirteenth century, not only in England but all over Europe. Those glorious Yorkshire abbeys, the ruins of which are so exquisite, were mostly works of the order. *Fountains*—(see illustration)—Byland, Furness, Kirkstall, Ravaulx, and Jervaux. There is a noble and dignified simplicity, and a beauty of line and proportion about these buildings, which are not surpassed even by the noblest cathedrals. Being allowed no ornament, the whole attention of these Cistercian builders was turned to the study of proportion and outline. The only kind of ornament they could use were moldings, and these they perfected to such an extent that even the absence of carving and sculpture is not felt in their buildings. In later times the Cistercian Order modified its rules, and in the reign of Henry VII. we find towers added to *Fountains* and *Kirkstall* Abbeys. Their churches may have gained in sumptuousness by the change, but they lost in that harmonious simplicity and severe dignity which distinguishes their twelfth, thirteenth, and fourteenth century buildings.

We must now say a few words about the domestic and civil architecture of the thirteenth century. There can be little doubt that the general run of town houses during

this period were of wood, and were rather low and small. There are in this country no examples of thirteenth-century town houses to be found, but on the Continent they are occasionally to be met with. The great Imperial city of Ratisbon, once the most opulent city in Germany, possesses many town houses of the thirteenth century. They are, however, peculiar to the place, and consist for the most part of very lofty towers, pierced by large Gothic windows divided into lights by columns. Now the frames and glass do not fit into the window, but are placed behind the mullions of the window, which thus stands free of the glass. I dwell upon this point because it explains a remarkable fact. It is this: that amongst the baggage of King Henry II., when he went from France to England, glass windows are mentioned. Now, until one has seen the arrangement of the thirteenth-century house windows at Ratisbon, it seems absurd that a man should be travelling about with ready-made glass windows, without considering for a moment whether they will fit the apertures of the house he is going to visit; but when these frames of glass are simply placed inside the window apertures like a kind of glazed screen, the thing is intelligible enough. The fact is, in the thirteenth century glass windows were a part of the furniture of a house, and could be removed from house to house at will.

We should not advise any of our readers who happen to be tenants to try to revive this old custom, as the landlord might not respect its antiquity, and would be likely to send in a little bill for dilapidations.

Of course these houses at Ratisbon were the residences of the noblest wealthy German princes or foreign ambassadors accredited to the court of the Emperor, who held his Diets at Ratisbon. Although this was the case, it would now considerably astonish any middle-class family if they had to live in one of these "mansions." On the ground floor is a stone-vaulted hall, like the crypt of a church, sometimes (where large) supported by columns. There the lord and his retainers, servants, etc., dined, supped, and the servants probably slept of a night. A narrow, corkscrew staircase led from this hall to the upper rooms. On the first floor was the chief room of the house, which served as drawing-room, ladies' sitting-

room, and chief bedroom. Probably in earlier times this was the only room in the house provided with glass windows; the other chambers had only wooden shutters. Of course paper hangings to the walls of rooms were unknown, and the beautiful tapestry which formed such a charming feature in mediæval houses was not in use at this period. Queen Eleanor of Castille, the wife of Edward I., appears to have introduced the practice of hanging private rooms with tapestry; and although she was naturally delicate and unable to bear the cold of our climate, yet the good folks of London looked upon this innovation as a most criminal exhibition of luxury and ostentation. They regarded tapestry as a thing only to be used in churches or grand and solemn ceremonials, such as coronations, etc., but that it should be used by a young queen for the hangings of her bed-chamber, was an unheard-of piece of extravagance, and it absolutely led to an insurrection.\*

There was no distinction between bedrooms and reception-rooms; every room, in fact, was a reception-room by day and a sleeping-room by night. The young dandy of the period had to content himself with a truss of straw, shaken down upon the floor of the hall. From this has arisen the common English expression, "Give me a shake-down for the night," meaning to say that one does not expect to be treated ceremoniously. The young gentlemen of the house in the morning had to take their turn at what Sam Weller calls a "Rence at the pump." Our girls can imagine what would be their brothers' feelings now under similar circumstances, while they can well understand their own at having to sleep in a room with unglazed windows, and no looking-glass to do up their back hair by.

The dwellings and surroundings, in short, of our thirteenth-century ancestors were rude and rough enough to satisfy the most exacting ascetic, yet they worshipped in temples which have never been surpassed for grandeur and sublimity. To a religious man, whatever his particular views may be, there must be something very striking in this contrast between the rough houses they erected for themselves and the glorious temples they built for the worship of Almighty God.

\* See Strickland's "Lives of the Queens of England."

## "CALLED TO THE BAR."

By ANNE BEALE.



motto for the Young Women's Christian Association for 1885 is "Go Forward." It is delightful to find that the Association is acting up to its principles

and motto, and throwing out branches in all directions. One of the latest offshoots of this wide-spreading tree is seeking to bring within its grateful shade the young women who work for long and weary hours at the restaurants and railway bars of this our province of London. Some thousands are thus employed, and Miss Gough has been appointed by the Y.W.C.A. to seek them out,

and to offer to all the right hand of sisterly and Christian love. Hers is truly a strange, eventful, and stirring life. She has to travel, if not exactly from Dan to Beersheba, from one point of the London compass to the other, both above and below ground, and to bear with her not only a kindly heart and temperate judgment, but a store of pure literature, a penny bank book, total abstinence cards, invitations to Bible readings and drawing-room meetings, and, above all, entreaties to join the large army of Christian women who glorify their lives by consecrating them to the service of their Heavenly King. Two days in her company will suffice to show us the arduous and dangerous life of those who serve, and the need they feel of kindly sympathy under the temptations of a career little appreciated or understood.

Will the readers accompany us on these expeditions, and learn for themselves how many a weary sister wears out her days in an occupation that would be, it would seem,

better filled by men? In America the stronger sex do minister to their brethren the spirituous compounds that tempt both sexes to lose their wits and addle their brains\*; but here, in our equally enlightened England, employers find that women are the more attractive, and, consequently, they are subjected to long days of doubtful occupation, sweetened, alas! by dull flattery, and excited by temptations too often irresistible. This mission, however, would fain help them to shun both flattery and temptation.

A short journey by Metropolitan brings us to our first subterranean hostel. What would our forefathers, who were wont to refresh themselves in wayside inns or hospitable taverns, say to this? Underneath the foundations of a London, quadrupled since their day, below its sewers and its gas-pipes, they would gaze in amazement on the marble slab of the

\* Since this was written, a law has been passed in Australia forbidding the service of women at these places.

## ARCHITECTURE ; OR, THE ART AND HISTORY OF BUILDINGS.

By H. W. BREWER.

PART V.—ARCHITECTURE OF THE  
FOURTEENTH CENTURY.

WITH the year 1300, Gothic architecture reached its climax, and writers upon art generally date the commencement of its decline from this period. Certainly its greatest glories were achieved between the years 1180 and 1300. In our own country alone the whole of the cathedrals of Lincoln, Salisbury, Worcester (except their towers), and Westminster Abbey (except the western portion of the nave) were erected, and there is scarcely a single cathedral or abbey church in the whole country which does not owe some portion of its structure to the builders of the thirteenth century. Thus, Hereford Cathedral is indebted to them for its transepts, and Lady Chapel, Durham, for its eastern transepts; Wells, for its nave and transepts; York, for its transepts; Rochester, for its choir, presbytery, central and eastern transepts;\* Ely, for the eastern portion of choir or presbytery; Peterboro', for its west front; Southwell, for

\* A few English cathedrals and churches have double transepts, one pair at the crossing, and the other, either at the east end, as at Durham and Fountains Abbey, or dividing the choir into two parts, as at Canterbury, Rochester, etc.

its choir; St. David's, for its choir; and Lichfield Cathedral, for its nave and transepts, etc.

In France, the list would be still longer, as it would include the greater part of the noble cathedrals of Rouen, Rheims, Bourges, Laon, Soissons, Noyon, Coutance Leman, Notre Dame Paris, Amiens, St. Paul de Laon, and many others.

Architecture has never at any period produced anything more magnificent than these noble churches.

The French excel ours in boldness of construction, in noble proportions, symmetry, and loftiness, and a general monumental character. The French use of sculpture in combination with architecture was far more magnificent than anything that we can show in England. For instance, we have nothing in this way to compare with the superb portals of Notre Dame Paris, Rheims, or Amiens. But, on the other hand, there is a picturesqueness, an exquisite contrast of light and shadow, a mysterious and poetical look, with a richness of molding about our English cathedrals, which are unsurpassed by those of any other country. Nor must we omit to notice the exquisite examples of thirteenth century architecture to be found in

Scotland. Glasgow, Jedburgh, Pluscardine, Dryburg, Elgin, and Holyrood are, in their way, as superb as anything in Europe.

The fourteenth century builders did not, as a rule, commence new cathedrals, or the entire rebuilding of more ancient ones, as was done in the thirteenth century, but seem, at any rate in England and France, rather to have satisfied themselves by continuing and bringing to completion the noble churches left unfinished in the preceding century; and it may be said that, except in Germany, scarcely any cathedral of first rate importance was commenced in Europe during the fourteenth century.

Some writers explain this by supposing that there was in the fourteenth century a cooling down of that zeal for religion which formed so marked a feature of the thirteenth century. Possibly there is some truth in this, but there were other causes at work to hinder grand architectural operations being carried out during the fourteenth century. The perpetual wars between England and France for the possession of the western provinces of the latter country crippled the resources of both lands—then France no longer possessed a St. Louis—and that great patron of art in England, Henry III., had given place to a son who preferred the arts of war to those of peace; again, if we just look into the year 1300, we shall see how other causes arose to hinder architectural development.

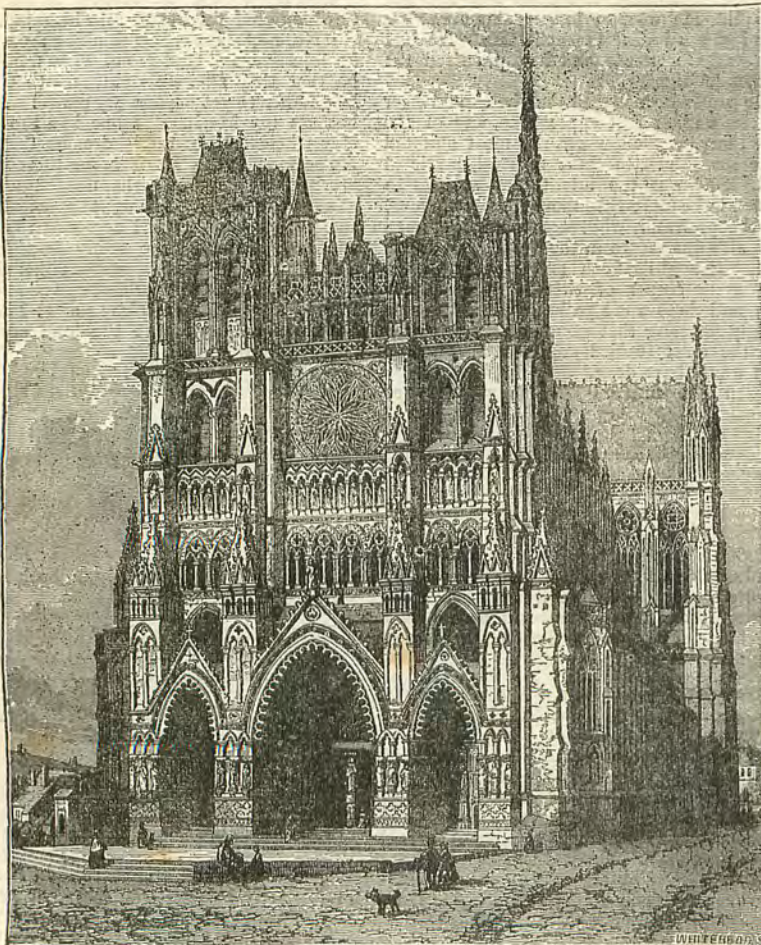
In the year 1300 Pope Boniface VIII. proclaimed the "great jubilee." Europe was at peace, and the Church was at peace, and the outlook for the future seemed to be most promising. Never, however, was promise more delusive; never was a bright prospect destined sooner to be overcast with gathering clouds.

Within three years the Pope was involved in a quarrel with Philip Le Bel, and ended his life in his own palace, the victim of cruelty and probably of murder. Shortly afterwards the "dual Papacy" and the preachings of Wycliffe and Huss gave a rise to questions which were too serious and too all-absorbing to allow of men tuning their minds to cathedral building. In secular matters things were equally unpropitious for the development of architecture.

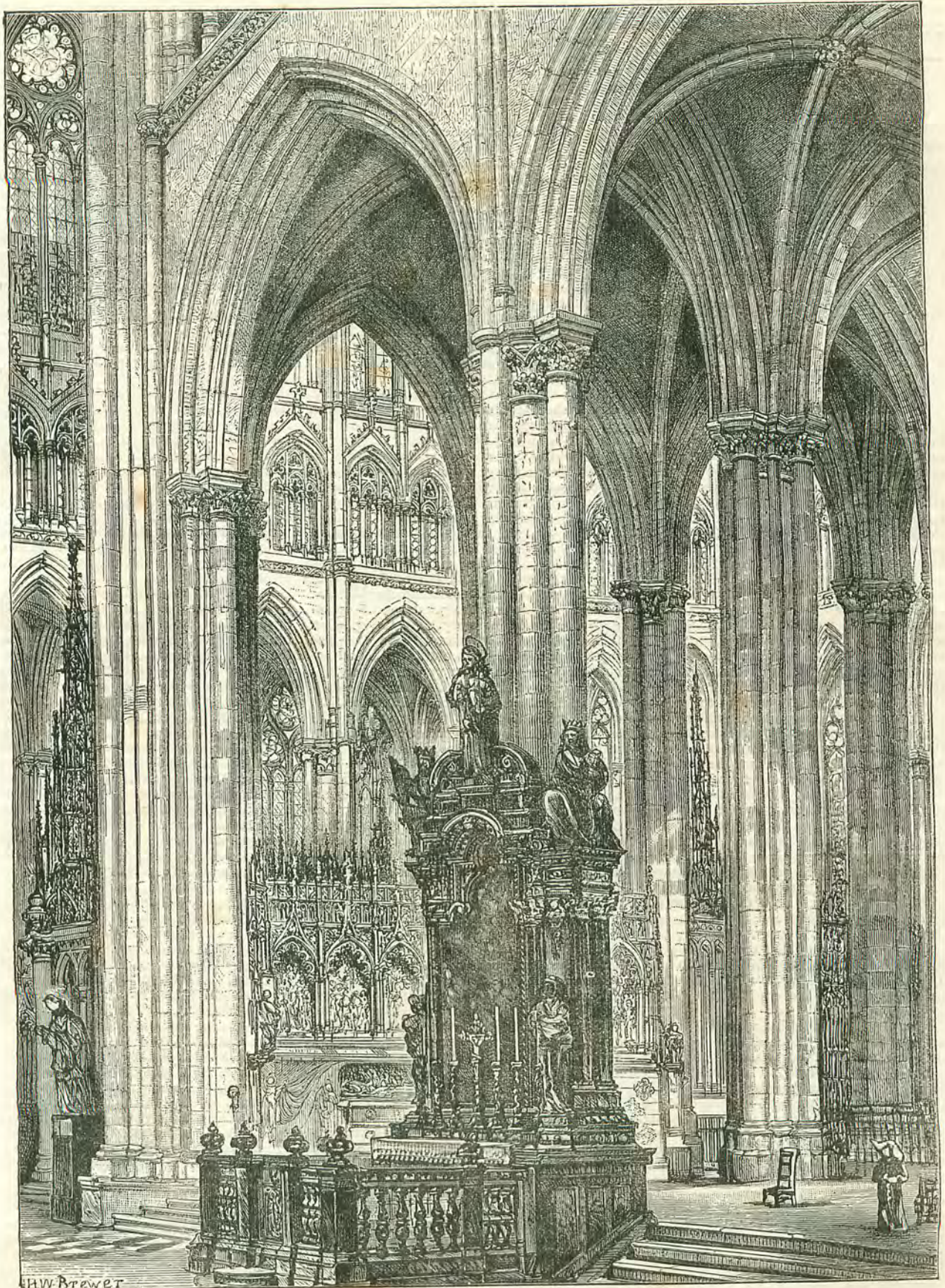
The perpetual wars which were going on all over Europe were followed by famine, which was again succeeded by a dire pestilence. Then also the immense increase in luxury, extravagance in dress, food, and general style of living, though conducive to an improvement in domestic architecture, had the reverse effect upon ecclesiastical.

It must, however, be taken into consideration in favour of the fourteenth century, that the twelfth and thirteenth century builders had been so extremely active in the cause of ecclesiastical architecture, that they had left little to be done except the completion of churches already in progress; and thus we find both in England and France that thirteenth century cathedrals were not finished until the fourteenth. Such is the case with Salisbury, which received its completion by the addition of its magnificent tower and spire; Lincoln, which had its three towers added at this time; Amiens, which received its choir-chapels and clerestory.

The "Geometric Period," as it is called, embraces the latter half of the thirteenth century and the first twenty years of the fourteenth. Unfortunately we cannot class it distinctly as belonging either to the "first" or "second pointed" style, because in its earlier develop-



AMIENS CATHEDRAL.



INTERIOR OF AMIENS CATHEDRAL.

ments, although its window tracery would seem to belong to the second period, its moldings, arches, columns, vaulting, and general scheme of decoration certainly belong to the first. We have already pointed out how the earlier developments of tracery may be distinguished from the later ones. Perhaps the most perfect example of the "geometric style" in existence, and the most typical church of the period, is the Cathedral of Amiens, because, although the greater portion of this most magnificent building dates from the thirteenth century, yet in the clerestory and triforium of the choir and the side chapels of the nave we find its later and richer developments. That the mediæval architects regarded the general arrangement, plan, and proportions of this cathedral as being more than ordinarily perfect may be gathered from the fact that they copied it over and over again with more or less modification. It is the "mother church" of the "geometric style," and though her daughters were many and fair, none of them equal the loveliness of their parent.

In France the cathedrals of Beauvais, Troyes, Clarendon, Limoges, Narbonne, and St. Ouen at Rouen; the choir at Tournay, in Belgium; the choir of the cathedral of Bois le Duc, in Holland; Westminster Abbey, in England; Toledo, in Spain; the cathedral of Cologne, the church of Altenberg, and the nave of Strasburg, are all, more or less, copies of the cathedral of Amiens.

Unfortunately, Amiens was never completed according to the original designs of its architect, owing, probably, to the badness of the soil or some defect in the foundation. Its central tower was never erected, and its beautiful *façade* has never received the spires which must have been contemplated. It also suffered much during the seventeenth and eighteenth centuries, when a good deal of its superb ancient furniture was removed and replaced by altars and fittings, many of which, like that shown in the foreground of our drawing, though good in themselves, are very inferior to the ancient screens also visible in our illustration, and to the superb stalls and organ-case which still remain. But if we regret these seventeenth and eighteenth century alterations, we are unable to speak with anything else than the strongest expressions of reprobation of the so-called "restorations" recently executed under the late French Government architect, M. Violet le Duc. The buildings which that gentleman erected in connection with this noble cathedral are acrobatic and eccentric to the last degree, and the altar and chapel which he restored and redecored are gaudy and inharmonious. Although the altars and fittings erected during the seventeenth and eighteenth centuries are somewhat out of keeping, and unworthy of this sublime church, they are good in themselves, and certainly do not inflict upon the building the injuries which are effected by the modern Parisian Gothic architecture.

It may seem strange that a man who could write so ably and with such just appreciation about mediæval architecture as did M. Violet le Duc should have failed so lamentably when he came to execute practical work in that style. Those, however, who have studied the history of architecture are not surprised at this, as it is rather the rule than the exception. Some of the ablest writers upon architecture have proved most miserable practical architects. Notwithstanding, however, these drawbacks, and the fact that the church is surrounded with about the most dismal scenery in Europe, it may be doubted whether architecture ever produced a nobler, more graceful, or more thoroughly beautiful building. In the Middle Ages, when its windows were filled with rich stained glass, its aisles and chapels adorned with delicately-canopied

altars, richly-carved screens, and harmoniously-coloured tapestry, it must, indeed, have presented a vision of exquisite beauty which no building before its time had ever approached, or probably ever will again.

It is generally stated that the cathedral of Cologne was commenced in the year 1248 by the German architect, Gerhard von Rhile, but a very careful examination of the whole question has led the writer to the conclusion that there is no proof whatever either that Cologne Cathedral was commenced at this date, or that Gerhard von Rhile had anything whatever to do with the present building. Even if it was commenced during the thirteenth century, little if anything more than the foundations of the choir can be of that date, as it is evidently a fourteenth-century copy of Amiens Cathedral, the plan of the choir being simply identical; but, like all copies of Amiens, it is less pleasing both as to general proportion and detail than its magnificent French prototype. Cologne is, in fact, a very exaggerated Amiens. Amiens is very lofty. Cologne is just too lofty. Amiens is very graceful, and its columns slight in proportion to its vast size. At Cologne the columns are absolutely wiry. The arches at Amiens are slightly stilted. At Cologne they are very much stilted. The vault at Amiens is slightly acute. At Cologne it is far too acute. The clerestory windows at Amiens are long, and in the choir are connected with the triforium, the latter being pierced and glazed. This treatment is copied at Cologne, but the proportions are so exaggerated as to give an appearance of weakness rather than grace. At Amiens the lower portions of the building are rather plain, and the upper very rich and full of detail; but this is done with such consummate skill that there is no appearance whatever of incongruity or loss of harmony. At Cologne, on the other hand, this treatment is so overdone that the lower portions of the cathedral are absolutely bald, and the upper portions finikin and over-elaborated. Again, the delicacy and extreme elegance of Amiens just avoid attenuation and flimsiness; but the architects of Cologne, by attempting to go a little further than those of Amiens, have fallen into the snare which had been so skillfully and carefully avoided by the French architects. The consequence is that Amiens strikes one as being a giant in repose, but Cologne a very tall man standing on tiptoe; and it is a remarkable example of Shakespeare's words, "When workmen strive to do better than well they do confound their skill in covetousness."

The nave and west front of Cologne are in no way copied from Amiens, and in them we find exemplified every fault of German mediæval architecture combined with many which have been introduced by the nineteenth century architects, who have carried out the old plans. The old design for the west front of this cathedral was discovered in a very remarkable manner. It is drawn on parchment with pen and ink, and had been cut in half. One portion of this had found its way into a library at Paris, but the missing piece could never be found until it was discovered by the architect, Zwerner, who was employed by the Prussian Government to complete the cathedral. After ransacking nearly every library, not only in Germany, but in other parts of Europe, he had abandoned the search, when one day he strolled into one of the villages near Cologne, when his attention was arrested by some beehives in the garden of a cottage. Upon examining more closely he noticed that the hives were supported upon an oak plank, evidently of great antiquity, attached to the under side of which was a covering of parchment. Such a find as this naturally interested

this enthusiastic antiquarian, especially when some delicate outlines were visible on the parchment. The poor bees were at once sacrificed and their hives removed, when, to his delight, the drawing turned out to be the missing portion of the design for the west front of Cologne Cathedral. Upon placing the newly discovered portion against that found at Paris, it fitted exactly. The two were mounted together and are now to be seen in the Cathedral.

Notwithstanding the criticisms we have expressed concerning this cathedral and its defects when compared to Amiens, or our own Westminster Abbey, it must be acknowledged that it is a very impressive and magnificent church, and as the largest Gothic cathedral in the north of Europe is of course singularly interesting. We think, however, that even Germany possesses examples of fourteenth century Gothic which are more pleasing.

The great rival of Cologne as to size is Ulm. But, apart from its superb furniture and porch, neither of which belong to the original design, and are a century later, it is one of the worst designed churches erected during the Middle Ages. Even its vast size does not impress one. It looks like the work of a man who had never seen a cathedral, and imagined that all he had to do was to copy a small church ten times its actual size. The building consists simply of a nave and aisles, a single chancel, and western tower.

Internally there is no triforium, and the whole building is bald and wiry. The superb porch and furniture are works of a later date, as we have said, and will be mentioned when we come to consider the later styles of Gothic architecture.

The two fourteenth century cathedrals in Germany which are most pleasing are those of Ratisbon and Halberstadt. These two beautiful churches were both commenced in the preceding century, but they may be said to belong almost entirely to the fourteenth. Ratisbon is a most masterly design, very simple and grand in its proportions, and rich, but not overlaid with ornament. It retains much of its fourteenth century furniture and stained-glass. There is a tradition that Ratisbon Cathedral was designed by the celebrated Albertus Magnus, and it is possible that the ground plan may have emanated from that extraordinary genius, as it is a very masterly composition, and one of the most scientifically arranged plans ever designed, both as to proportion and the constructive disposition of void and solid. Little except the foundations could, however, have been carried out in the direction of Albertus Magnus, as he died in 1280, and the cathedral is distinctly fourteenth, and not thirteenth century work. Halberstadt is another most charming church. It is less simple in plan than Ratisbon, but is exceedingly elegant in detail. Its furniture, rood screen, altars, etc., are of the date of the building, and it is in nearly the same state as it must have been in the sixteenth century.

The cathedral of Freiburg, in Breisgau, is another beautiful example of fourteenth century work. It has about it a singular charm of colour, as it is built of a rich crimson stone. The exterior of the church has never suffered from the process called "restoration," and the beautiful orange-coloured lichens and mosses with which its surface is everywhere covered render it one of the most charmingly pictorial buildings in Europe. Like Ratisbon and Halberstadt, it contains a great deal of its ancient furniture and stained glass. We shall have occasion later on to describe the justly-celebrated tower and spire of this beautiful cathedral.

We must also refer to a remarkable class of fourteenth century churches erected in the

north of Germany—the “brick churches” of the Baltic and Mecklenberg. Some portion of the north of Germany and Mecklenberg appear not to have been converted to Christianity until quite the close of the thirteenth century, and probably were still sunk in barbarism and paganism. Shortly after their conversion to Christianity some of the towns appear to have been very opulent, and many large churches capable of holding vast congregations had to be erected; not cathedrals or conventual churches, but great parochial edifices.

A difficulty presented itself. There was no building-stone in the neighbourhood, and there was little or no architecture of a previous date to help the architects. Undaunted, however, by these drawbacks, they constructed, in brick, buildings which in other regions were being erected in stone. Thus we find immense brick churches, everything about them being of brick—window traceries, doorways, vaulting, and, occasionally, even the internal screens, pulpits, and altars. The detail is generally very simple, and the more ornamental portions are frequently worked out with glazed bricks of a dull green colour. One of the most surprising churches of this class is that of St. Mary Lubeck. Though simply a parochial church, it is nearly 400 ft. long, and 150 to the vaulting—that is to say, as long as Westminster Abbey and half as lofty again! There is little or no detail about the building, and the interior is covered with whitewash. Now, this whitewash cannot be very modern, because it is shown in pictures of these buildings dating back two centuries. Some of the churches in Mecklenberg have been restored and the whitewash removed with bad effect. There is at the present day a prejudice against whitewash. Now, we should not for a moment advocate the whitewashing of the interior of a stone church, but it is certainly the best treatment for a large brick building, or for walls covered with plaster, and we most heartily wish that people would whitewash their houses in London, as they used to do in the Middle Ages,\* instead of painting them all kinds of horrible colours. If one walks down a London street nowadays one sees dirty yellow houses, dirty brown houses, dirty grey houses, dirty damson jam-coloured houses, dirty strawberry ice-coloured houses, rotten apple-coloured houses—all very hideous and gloomy, whereas if people would paint them white or whitewash them, they would look cheerful, wholesome, and cleanly, instead of nasty, vulgar, and pretentious. Even in our churches a great deal of what goes under the name of “decoration” might, without any loss to art, be carefully veiled under a thick coat of whitewash. In the Middle Ages whitewash was very largely used; it is perhaps not too much to say that about nine churches out of ten were covered with it internally; and when decorated the decoration was executed over the whitewash instead of being, as is now the case, painted upon a drab background of oil-paint. The consequence is that wherever ancient decoration exists it is delicate and luminous, whereas in nearly every case the modern restorations of it are heavy and opaque.

Other brick churches of great dignity are found in the south of Germany, of which Straubing, Landshut, Ingolstadt, and the Frauenkirche at Munich are good examples. In these, however, stone is used for most of the ornamental portions. Many of these churches, unlike those of England and France, possess neither clerestories, transepts, or distinctive chancels. They are simply vast halls, divided into a nave and aisles by two rows of immensely lofty columns. In the

Church of Landshut, for instance, the columns are a hundred feet high. We have dwelt at some length upon these great brick churches of Germany, because they seem to point out to us how the mediæval architects would have met the difficulties of supplying such places as London, Liverpool, and Manchester with vast places of worship, and they seem to offer to the architects of our day models which they might well follow.

In our own country the most perfect examples of the fourteenth century architecture are not so much to be sought for in cathedrals or very large churches, but in “chapels.” These buildings are of an especial interest, and perfect models of their class of ecclesiastical edifice. It is, however, greatly to be regretted that the most magnificent specimen has been destroyed within our own time. This was the superb chapel of St. Stephen at Westminster. This most exquisite edifice formed a collegiate chapel attached to the ancient palace of our kings at Westminster, and was commenced by Edward I. to supply the place of a previous building destroyed by fire. Left incomplete by Edward I., little or nothing was done towards finishing it by his worthless successor. Edward III., however, completed the whole structure, together with its most sumptuous decorations. What gives an especial interest to this work is the fact that nearly the whole of the accounts of moneys expended, not only upon the structure but even upon the decoration and stained glass, are still extant; and from them we learn that Master Thomas, of Canterbury, the chief architect, received six shillings a week for his work, whereas William Lehare, who “carried the stones” and “cleaned out the lodge,” received one shilling and sixpence a week. This is equality with a vengeance when the lowest workman received a quarter of the wages that was paid to the leading architect! Master Hugh, of St. Albans, who painted the pictures in the chapel, also received one shilling per day; whereas Richard Lincoln, “for grinding his colours,” received 4½d. per day. Imagine a Royal Academician (and Hugh of St. Albans was at least in that position at his time) receiving only three times the wages of an ordinary labourer!

Although only 90 ft. by 35, nothing could surpass the extreme magnificence of this chapel. The interior, which was constructed to a great extent of Purbeck marble, was everywhere either splendidly carved or enriched with painting, gilding, or “jessowork”—a very fine kind of stucco stamped with minute patterns and then burnished and gilt. The walls, wherever a flat space presented itself, were covered with beautiful little pictures painted upon gilt backgrounds and finished with almost the same delicacy as miniatures.\* The magnificent windows were filled with the richest stained glass. In the reign of Edward VI. this chapel was given over for the meetings of the House of Commons, and for the next two centuries and a half it underwent a series of most disgraceful mutilations and disfigurements. So thoroughly were its beauties concealed by plaster, galleries, brickwork, and wood panelling, that it was supposed that all its internal decorations had been destroyed. When, however, the union with Ireland took place, it was rendered necessary to remove some of the panelling, the most exquisite remains of painting sculpture were brought to light. The magnificent marble wall arcades were in many cases almost perfect, yet it is scarcely possible to conceive that not only

were these exquisite works of art ruthlessly destroyed, but that the greatest difficulties were placed in the way of those two enthusiastic antiquarians and artists, Carter and Smith, who made and published drawings of all that was then brought to light. It is even said that the “red tape” authorities of the House of Commons “refused these two gentlemen the use of a ladder!” They were, however, able to do enough to show us what a superb building it must have been in ancient times. The perpetual patchings up, the contemptible meanness of the Government in making paltry additions with lath and plaster, canvas, and thin deal boards, met the fate that it deserved, and in the year 1832 the whole of the House of Commons, together with the House of Lords and the adjoining buildings, were burnt to the ground, which had over and over again been predicted.

Several other chapels of the same class as St. Stephen's, though less sumptuous, are fortunately left to us, and amongst them we mention the beautiful chapel of the palace of the Bishops of Ely, in Ely-place, Holborn, now the Roman Catholic Church of St. Etheldreda. Ely Chapel is almost identical in plan and dimensions with St. Stephen's. It is, however, earlier in style and far plainer. Unfortunately, it was never finished according to the original intentions of the architect, and the crypt and roof appear to have been left in a very incomplete condition. It was most barbarously used during the last century, its walls cut into for galleries, its delicate sculptures destroyed, and its open roof covered with a plaster ceiling. Worse treatment still threatened it, for a few years back it was put up to auction, and would have fallen a prey to some speculating builder, but, fortunately for art, the Reverend H. Lockhart purchased it. The east and west windows are amongst the finest examples of early Decorated tracery in existence.

The choir of Merton College Chapel, Oxford, is another very beautiful example, and is, like Ely Chapel, early in style.

Luton Chapel is a rather more advanced specimen, following very much the lines and proportions of Ely.

Our Lady's Chapel, now Trinity Church, Ely, and Prior Crawden's Chapel, also at Ely, are sumptuous examples of the latest developments of the style. The former is probably the richest and most highly wrought building in England, and it is without doubt the most perfect example of the “Curvilinear” period. The amount of carving and moulding about this chapel is not more remarkable than the extreme delicacy of the work and the variety and intricacy of the detail. In plan and proportions, this building greatly resembles Ely-place Chapel, except that it is vaulted, whereas the latter has a wooden roof and has no crypt. No building which we know has such a collection of foliage carving as this; it is a veritable garden in stone—the vine, the oak, the hazel, the maple, the rose, the lily, and the apple, are everywhere to be found; alas! more or less mutilated, but most lovely. What set of fanatics could have mutilated these delicate carvings we cannot say. It is difficult to imagine that anyone could have thought that he was doing the Lord's work by such an act; the same persons would, if they had lived at the time, have broken down the carved work and mutilated the cherubs and pomegranates of Solomon's Temple.

We must now say a few words about the distinctive marks of the Decorated style, and how buildings of this date are to be distinguished. With regard to the windows. Decorated windows may be divided into two classes—geometric and curvilinear. The first have tracery composed entirely of geometric circles and figures composed of parts of circles, the spherical triangle, for instance, as

\* London was called the “White City” in early times.

\* These paintings seem to have represented subjects taken from the Old Testament, especially the Book of Job. Probably the stained glass illustrated the New Testament. A few fragments of the pictures are still to be seen in one of the glass cases at the British Museum.



ST. OUEN, ROUEN.

we see in the triforium of the choir at Amiens. The curvilinear have traceries formed by curved lines, enclosing openings not unlike a shawl pattern.

The windows of the Lady Chapel at Exeter, Ely Chapel, and Merton Chapel, Oxford, are beautiful examples of the former class. The east window of Carlisle Cathedral, Selby Abbey, and the Dutch Church\* in Austin Friars are excellent examples of the latter.

Beautiful as are these curvilinear windows, they undoubtedly mark a certain decadence in Gothic architecture, because it is an irrational treatment of stone, as they suggest the idea of the material being bent instead of cut into the form required, and as stone is a substance incapable of being bent or twisted, the impression is one of instability. These delicately curved lines are incapable of giving support to anything, and are thus lines of weakness, whereas geometrical figures always give a *notion of strength*. It is in fact a sacrifice of strength for elegance which always marks a decline in art.

Decorated columns are much more elaborate than Early English, and in plan have curved profiles, with molded members between the shafts. These moldings are more varied than in the Early English, but the hollows are not so deeply sunk, and the projecting portions not so much undercut, so that the general effect is less liney and broader than Early English. The arches in the Decorated style are, as a rule, less sharply pointed than in the Early English.

The figure sculpture is less noble and dig-

\* Formerly the church of the Augustinians.

nified in the Decorated than in the Early English style. A great peculiarity is to be seen in the proportions of the figures—the head is so large in proportion to the body, and in female figures the breast is quite flat. Notwithstanding these defects, some of the monumental effigies are very fine, though not equal to those of the previous style. The foliated sculpture, however, is most exquisite; it always represents natural objects, and almost every kind of leaf and flower is to be seen represented. The oak, the vine, and the rose are, however, the most common. The foliage of the capitals does not grow out of the astragal, as in the earlier styles, but forms a wreath round the bell of the capital.

Plucked flowers are generally represented, and sometimes the little stalks are interwoven in a very graceful manner. Birds, lizards, squirrels, and other creatures are frequently represented amongst the foliage.

At St. Albans Abbey, owing to some addition or alteration, the string course beneath the windows is about six inches lower in one place than the rest of the church. This would have a very ugly effect, and in our day would have given the builders no end of trouble, but the mediæval workman was just delighted with such an opportunity of showing his ingenuity, and this is the way he got over it.

He carved the termination of each string into a bunch of hazel nuts, and made a little squirrel climbing from one to the other. The workman who did this was a thorough artist.

Domestic architecture made great advances during the fourteenth century, and the dwelling-houses of the period show that the primitive simplicity, not to say roughness, of life

of the thirteenth century had given way to a much more luxurious style of living. Glass windows seem to have been in common use, the walls were covered internally with carved panelling, or hung with tapestry. Several magnificent mansions and houses which date either entirely or partially from the fourteenth century still exist.

The greater part of the upper "bale" of Windsor Castle is of this date, though greatly disfigured by Wyattville's restoration. Corfe Castle, Dorset, perhaps one of the finest buildings of its class in Europe, was erected in the reign of Edward I., and its stupendous ruins cover many acres of ground. Portions also of the Castles of Kenilworth and Warwick, and of Durham, Raby, Alnwick, Warkworth, etc., date from this period.

But a class of buildings came into existence in the fourteenth century which are only partly fortified. We refer to the old manor houses—Penshurst in Kent and Haddon Hall in Derbyshire. The halls of Wenham and Old Arminghall are especially interesting examples, the first because it is one of the earliest buildings constructed of brick in this country, and the second (although now used as a farmhouse) must originally have been one of the most elaborate domestic buildings in England. The principal porch is adorned with carving and statuary, worthy of a cathedral, and a little doorway at the back of the house is remarkable for the beautiful carving of vine-leaves, which completely surrounds it. Unfortunately, very little remains of this interesting building, which has been rebuilt as a modern farmhouse.

(To be continued.)



## A LABOUR OF LOVE.

By SYDNEY GREY.

A BRIGHT little maid to her mother once said,  
 "To-day by your side as I sat,  
 When we called on Miss Falk, I heard you both talk  
 Of a labour of love—what is that?"  
 The kind mother smiled, and she answered, "Dear child,  
 It simply means something begun  
 With hearty goodwill, never tiring until  
 The business is thoroughly done.

"When you tend your pet dove 'tis a labour of love,  
 And when in your garden you work;  
 About lessons, my dear, I am not quite so clear,  
 For these you—well, now and then—shirk.  
 Nay, raise your bright eyes, some day you'll be wise,  
 With the blessing of God from above.  
 Now I'll tell you a few of the things one should do,  
 Which ought to be labours of love.

"Words of kindness to speak to the sad and the weak,  
 Perhaps they will comforted be;  
 And daily to plan all the good that we can  
 For those who are poorer than we.  
 When the best we would choose, self-denial to use,  
 That others may happiness share;  
 Never counting the cost, though some pleasure be lost,  
 If we lighten one burden of care.

"To cherish the old, nor neglect to uphold  
 The cause that is holy and right;  
 All these are the acts which our Bible enacts  
 We must do with our strength and our might.  
 It is there, too, we read, for our uttermost need—  
 Seek the things which are found but above—  
 And this, dear, I pray every night, every day,  
 May be your chief labour of love."

## ARCHITECTURE; OR, THE ART AND HISTORY OF BUILDINGS.

By H. W. BREWER.

## PART VI.—THE STYLE OF THE FIFTEENTH CENTURY AND THE GOTHIC SPIRE.

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## GOTHIC SPIRES.

## SAXON AND NORMAN.

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1. Sompting, Sussex. Saxon. Wood, covered with stone shingles.
2. West Dean, Sussex. Norman. Wood, covered with tiles.
3. Blatchington, Sussex. Norman. Wood, covered with tiles.
4. Bishopstone, Sussex. Norman. Wood, covered with wood shingles.

## THIRTEENTH CENTURY.

5. Welford, Northamptonshire. Early English. Stone.\*
6. An ordinary timber spirelet covered with lead. Common all over England through all periods.
7. Oxford Cathedral. Early English. Stone.

## FOURTEENTH CENTURY.

8. Newark, Nottinghamshire. Decorated. Stone.
9. Salisbury Cathedral. 404 feet high. Decorated. Stone.
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11. Freiburg Cathedral, Germany. Decorated. Red stone.
12. St. Martin's, Landshut, Bavaria. 470 feet high. The loftiest brick building in the world. Fourteenth and fifteenth centuries.

## FIFTEENTH CENTURY.

13. Rotherham Church, Yorkshire. Perpendicular. Stone.

\* This form of spire is called "a Broach," on account of the angular masses of masonry which broach or unite it to the tower.

† Although this spire only dates from the commencement of the fifteenth century, it follows the outline of the French spires of the thirteenth century. Brittany was at least a century behind the rest of France in architecture.

TOWARDS the close of the fourteenth century Gothic architecture in England underwent a most remarkable change. Suddenly, and almost without preparation, the curvilinear lines of tracery were abandoned, and in their place rigid vertical and horizontal lines were introduced, so that instead of the windows or panels being filled with curved bars of stone, they were subdivided by straight mullions and "transoms" (*i. e.*, cross-bars).

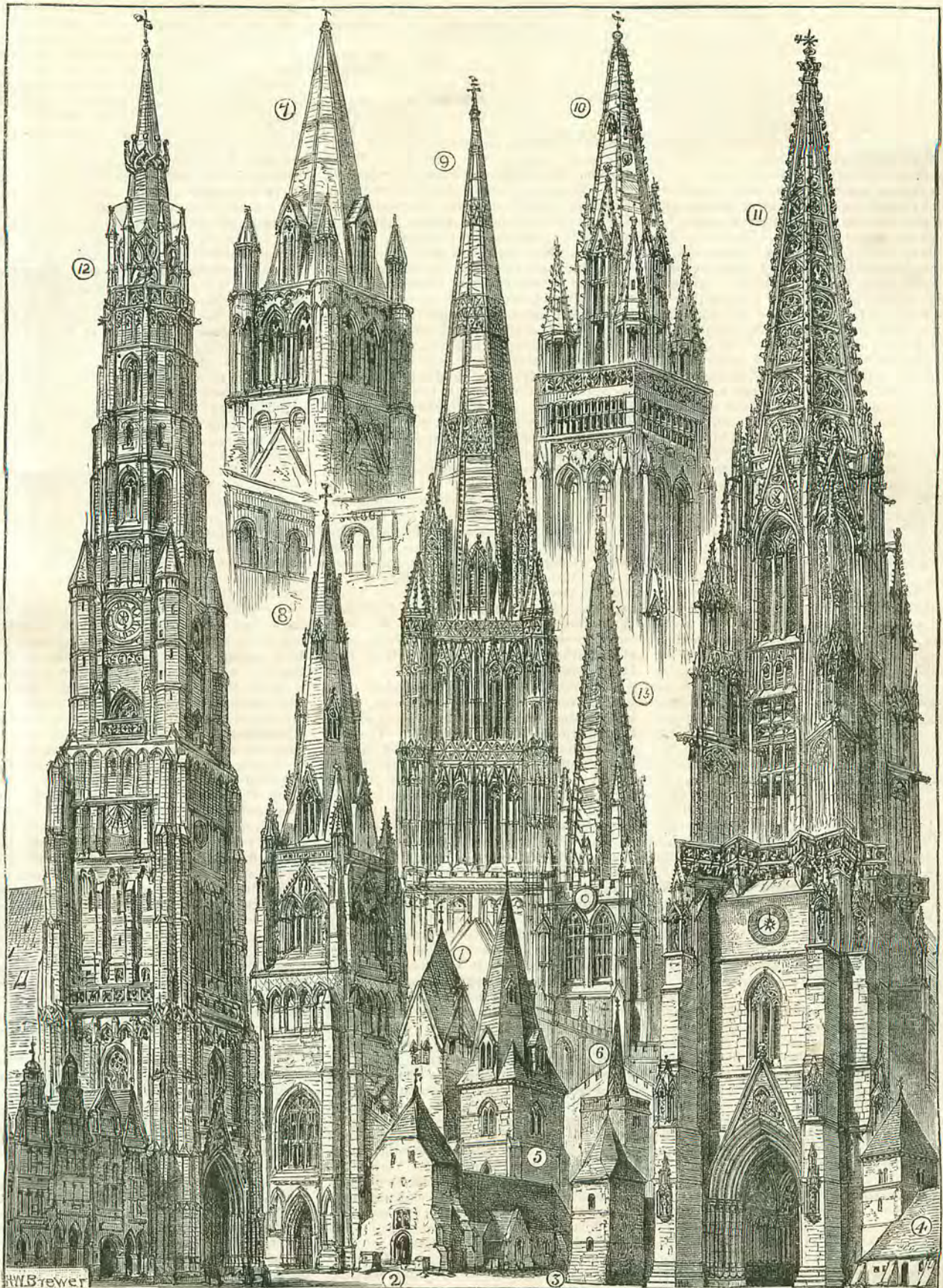
The first building in which we find this to be the case is the beautiful church of Edington, in Wiltshire, erected by William Edington, Bishop of Winchester, before the year 1366. Shortly afterwards we find the treatment more developed, as in the nave of Winchester Cathedral, New College, Oxford, and Winchester College, erected between 1366 and 1404 by Edington's successor in the diocese of Westminster, William of Wykeham.

Our readers must not, however, suppose that the Perpendicular style was anything like generally introduced at this period. The eastern part of the choir of York Minster, which, though commenced in 1361, was not completed until 1399, possesses many features of a transitional character, the traceries of the windows containing curvilinear as well as rectilinear lines. Then again the beautiful church of Shottesbrook, in Berkshire, perhaps the most charming village church in England, built in the form of a cross, with a lofty spire in the centre, is said to have been commenced in the year 1387; and Wimington Church, Bedfordshire, another very pretty village church, in 1391. Neither of these buildings shows even an inclination towards the Perpendicular style, which certainly did not come into general use until about the year 1400. This, of course, renders it extremely difficult to tell the exact dates of buildings erected during the last forty years of the fourteenth century: because, as we have shown, the Perpendicular style prevailed in some places, yet in others the Curvilinear Decorated maintained its hold until quite the close of the century; therefore, our girls must

not jump at the conclusion that they have found us out in making terrible blunders when we describe Perpendicular buildings dating from 1370 or 1380 as being in the style of the fifteenth century. The writer is perfectly aware that in point of date such buildings should be described as belonging to the fourteenth century, but they are to be regarded as isolated examples, and as the forerunners of a style of architecture which did not come into general use until some thirty years afterwards.

The works of Wykeham are most remarkable, and form a very decided epoch in English architecture; they are thoroughly the outcome of an English mind, free from any triviality, solid, full of plain common-sense, and quite suited to their purpose. His buildings at first sight appear to be so simple in design and so free from effort that it has been suggested that Wykeham only regarded the constructive qualities of his buildings, and did not care much about their more artistic ones. This is, however, a mistake, because what little detail is found in his work is most carefully studied, and is very effective and excellent in its way; in fact, his works are a practical illustration of the saying, "*Ars est celare artem.*" It is true that he considered good construction and just proportions of greater importance than ornamental detail, and that he was willing to abandon the elegance and graceful forms of the later Decorated Gothic for a more sturdy, manly, and robust style; and to him we undoubtedly owe the dignity and severity which mark the early Perpendicular buildings, and make them form such a contrast to the exuberance and richness of the style which immediately preceded it, or the gorgeous elaboration of the Tudor works which followed it.

The name "Perpendicular" has been given to this style, but some writers have with greater justice and reason called it the "Rectilinear" style, because the horizontal lines are quite as distinctly marked as the vertical—in fact, even more so. There can be no doubt



GOTHIC SPIRES.

See opposite page.



that to a certain extent the Perpendicular style was a kind of return to classical ideas. Gothic architecture in its triumph over the trabeated form of building, in its aspiring grace, its soaring upwards, and feeling of motion, was becoming a little unsteady and weak in construction, and correctives such as those which Wykeham introduced into the art of building were needed just at this time. In fact, we have only to look at the wildness of the French Flamboyant and the late German Gothic to see how judicious Wykeham was in introducing a certain rigidity into his style.

Wykeham was one of those mighty geniuses which the Middle Ages occasionally produced, and who seem to have grasped a knowledge of things almost intuitively. He was at once a great Prime Minister, a diplomatist, a thorough man of business, a great scholar, an active and energetic churchman, a reformer of his diocese and clergy, a great patron of education and learning, and yet he found time to introduce great reforms into architecture, and become a master in the art of building. The man, in fact, possessed a giant mind in a giant body, and probably his immense physique enabled him to undergo toils which would have broken down both body and mind of any ordinary mortal. We may well imagine that such a man as Wykeham had little taste for mere prettiness. Everything with him had to be masterly, dignified, and thoroughly sound; nothing was to be done without some reason. Wykeham's principal works were the curtain walls and towers connecting the two Baileys at Windsor Castle, the greater portion of the nave of Winchester Cathedral (which was commenced by Edington), New College, Oxford, and Winchester College.

We have said that the thirteenth century was the great age for cathedral building; that the fourteenth century continued the works begun in the thirteenth; that the most perfect examples of the Decorated style are to be found in chapels either attached to greater churches or isolated. Now, if we want to see the finest developments of the Perpendicular style, we shall find them in the great parochial churches. Such, for instance, as St. Michael's, Coventry, completed 1395; St. Nicholas, Lynn, completed 1400; the Collegiate Church, Manchester, now the Cathedral, 1422; St. Mary's, Bury, commenced 1424; Fotheringay Church, Northamptonshire, 1435; Southwold Church, Suffolk, about 1440; St. Peter's, Mancroft, Norwich, consecrated 1455; St. Mary's, Redcliff, Bristol, in the course of erection 1442; Tattershall Church, Lincolnshire, 1455; Wakefield Church, Yorkshire, 1470; St. Stephen's, Bristol, 1470; Blithborough Church, Suffolk, completed 1472; St. Lawrence, Norwich, 1472; Swaffham Church, Norfolk, 1474; St. Mary's, Oxford, 1478; St. Mary's, Cambridge, 1478; Long Melford, Suffolk, 1481.

The plans of Perpendicular churches vary very greatly from anything that had gone before. They are far more open and spacious, the columns are further apart and more slender, the nave generally wider, the windows much larger, and the walls both loftier and thinner. The clerestories are often, as in the case of St. Peter's, Norwich, a continuous series of windows; the roofs are less steep, often nearly flat; the towers are usually loftier, and are always dignified. Spires are less common than in the Decorated style.

Perpendicular arches are not so pointed as those of the earlier styles, and the four-centred arch (misnamed "The Tudor") is frequently used. This form of arch is uncommon in early styles, but was in constant use in the time of Richard II., so to call it the "Tudor arch" is manifestly a misnomer. The chief marks of the Perpendicular style are the vertical mullions, running right up to the head of the windows, and a great flatness in

moldings, carving, and foliage. The plants represented in the latter are nearly always the vine or the oak; the leaves are full blown, and very much watted or crumpled, as if they were copied in the late autumn, just before their fall. Grapes and acorns are plentifully represented. The great glories of the Perpendicular style are the church towers, wooden roofs, and internal church furniture, such as screens, stalls, seats, etc. All the finest towers in England are of this date and style. We can, however, only mention a few:—Boston, Lincolnshire; Taunton, Somersetshire; Wrexham, Denbighshire; Wymondham, Døpham, Hingham, Salle, Terrington, St. Clements in Norfolk; Southwold, Blithburgh, in Suffolk; Manchester Cathedral, and St. Nicholas, Newcastle-on-Tyne, are all fine examples, and the great centre or lantern towers of the cathedrals of Gloucester, Worcester, Bristol, York, and Durham serve to show what masters of tower building were the architects of the fifteenth century.

They do not appear to have cared so much for the spire as the fourteenth century architects did; at least, in England. However, St. Michael's, Coventry; Whittlesea Church, Cambridgeshire; and Rotherham, Yorkshire, show how thoroughly they understood this architectural feature. The wooden roofs are very magnificent, both in churches and secular buildings. Amongst the former those of Trunch, Wymondham, St. Peter's, St. Andrew's, St. Mary's, Norwich, in Norfolk; Morton, in Somersetshire; East Ham, in Somersetshire; Harrow and Rislip, in Middlesex; Aldenham, Herts; Lavenham, Long Melford, Cavendish, St. Mary's Bury, Blithburgh, and Southwold, in Suffolk; Saffron Walden and Thakstead, Guestensthorp, Castle Headingham, in Essex; and St. David's Cathedral, Wales, are very notable examples. In secular buildings we have the vast roof of Westminster Hall, Eltham Palace, and the hall of John Halls, Salisbury.

A beautiful oak roof of this period is to be seen at Crosby Hall, Bishopsgate-street, which is somewhat singular in design, and exactly the opposite of Westminster Hall. The roof at Westminster Hall is what is called an open timber roof—that is, the whole of the beams and woodwork of which it is constructed are visible from below. It is also what is called a "hammer beam roof"—that is to say, the cross-beams of the principals are cut off, and are adorned with figures of angels. Now, at Crosby Hall all the constructive timbers are concealed by an arched barrel roof, and all the work which is visible is purely ornamental; in other words, the roof of Crosby Hall is in reality a ceiling. Crosby Hall is nearly a century later in date than Westminster, and this treatment shows a great increase in luxury and comfort. It was found that the open timber roof often left the apartment very cold in winter and warm in summer, but the ceiled or barrel roof, by retaining a space full of air between the outer and inner roofs, kept the temperature of the building nearly equal.

The internal furniture and fittings of churches executed during the Perpendicular period are exceedingly elaborate and beautiful—screens, stalls, altar-pieces, pulpits, and benches are frequently adorned with a profusion of exquisite carving, panelling, and canopy work. The stalls of the cathedrals of Lincoln, Chester, Manchester, York, Chichester, and Norwich are especially magnificent, and although perhaps less elaborate than those of the churches of Lancaster; Lavenham, in Suffolk; All Souls' College, Oxford; and Southwold, are not less interesting. The churches of Norfolk, Suffolk, and Essex also abound in magnificent screen work, which is not only richly carved but adorned with paintings of saints and angels of very high merit, showing that during the fifteenth century

England must have possessed a school of painters scarcely inferior to those of Germany and the Low Countries. The roof-screens of Ranworth, Cawston, Worstead, Aylsham, in Norfolk; and Southwold, in Suffolk, are singularly beautiful, both on account of their remarkable carving and the exquisite paintings with which they are adorned. We have singled out these particular churches for mention chiefly on account of the remarkable state of preservation of the paintings and carvings of their screens, and it is not a little remarkable that such works of art should have escaped almost uninjured in counties which were the headquarters of Puritanism. Very many of our English churches retain also their ancient benches, nearly all of which are of this period. Sometimes their ends are adorned with carved finials or terminals called "poppy heads," as at East Ham, Somersetshire, and South Walsham, Norfolk. It is most probable that previous to the fifteenth century our churches did not possess fixed benches at all, and that those attending the services either knelt or stood, as is still the case in Spain, parts of Italy, and to a great extent in the Roman Catholic districts in Germany, where the men stand during the whole service, the few benches being reserved for the use of women, aged persons, and children. This custom is undoubtedly very ancient, though, perhaps, it leads to that walking and fidgeting about which is so objectionable to the worshipper.

The fifteenth century architecture on the Continent forms a marked contrast to that of England; instead of the rigid rectilinear lines which are such a feature of the Perpendicular style, the Curvilinear tracery of the fourteenth century in France develops into a luxurious wildness of ramification, producing forms which resemble elongated tongues of flame, and from this circumstance that architecture has been called the "Flamboyant." It is perhaps the legitimate outcome of the Curvilinear style, though at the same time it is carried to excess and exaggerated. Naturally it is constructively weak and in reality an artistic monstrosity, yet with all this there is a loveliness about it, a wonderful fascination, a delicacy, and a dainty elegance which has never been surpassed; it is like the exquisite but fatal beauty that we see in the faces of those who we know are about to fall victims to consumption. All robustness has departed and given way to a beauty too ethereal to last; it has been justly named Flamboyant, for like a flame which suddenly darts upwards, we know for certain that its light will soon be extinguished. Some of the most exquisite examples of this style are the transept fronts of Beauvais (see p. 396), the west front of the cathedrals at Abbeville and Tours, the church of St. Maclou, at Rouen, the church of Caudebec, in Normandy, and the sumptuous choir of Mont St. Michael, in which the most delicate tracery and intricate canopy work is all executed in pink granite, and the superb doorways of the west front of Rouen Cathedral, etc.

The church furniture and fittings of this style are even more magnificent than those of our own Perpendicular, and the want of constructive stability is, of course, far less apparent in such works as altar-screens, stalls, and monuments, than in the more structural portions of building. It is, perhaps, no exaggeration to say that the stalls of the cathedral of Amiens are the most glorious examples of carved woodwork to be met with in the whole world. In these most extraordinary works no time, labour, or expense was spared. Commenced quite at the close of the fifteenth century, they were not completed until about the year 1521. The chief sculptor employed seems to have been Anthony Avernier. It is said that the chapter of the cathedral were so determined to have the

most magnificent choir-stalls ever erected that they sent their architect and a Franciscan friar who was a great wood carver to examine the choir-stalls of every cathedral in the north of Europe, with instructions to copy everything they could find which was beautiful about them, and to surpass them in elaboration; and certainly these men carried out their instructions to the letter. Some idea of this elaboration may be gained by the fact that an architect who was a very rapid sketcher informed the writer that it occupied him a whole day making a small sketch of one of the bench ends. There are said to be over 10,000 figures in these stalls, including representations of birds, beasts, and reptiles. These exquisite works of art were condemned to be burnt with the rest of the cathedral by the French Directory; but the prefect of the town carted the whole of the hay of the district into the cathedral, and the building, with its exquisite furniture, was spared upon the excuse that the prefect had converted it into a barn.

The fifteenth century architecture of Germany has a good deal in common with that of France, though the window tracery is far more eccentric, and a very curious kind of treatment is to be noticed, to which the name of "stump tracery" has been given. It consists in making the various mullions forming the window interpenetrate, and then cutting them off abruptly just beyond the point of interpenetration. This is often done with such extreme accuracy, and the workmanship is so sharp and clean, that there could be no doubt that it was a trick of the mason to show his consummate skill. Sometimes, even, the mullions are cut into the representations of branches of trees lopped off and intertwined. The fittings of the German churches of this date are very sumptuous. Two features especially demanding notice are the tabernacles (*sacraments-häuser*) and the great triptychs or altar-pieces of wood. Amongst the former may be mentioned those in the cathedrals of Ulm, Munster, and Ratisbon, and in the churches of St. Lawrence, Nuremberg, Nordligen, Ochsenfurth, and Schwabisch-hall. These singularly beautiful structures consist of a forest of delicate little pinnacles and canopies. That of Ulm rises to the extraordinary height of ninety feet! The carved-wooden altar-pieces are even more elaborate, and are generally richly decorated with colour, and enclose either bas-reliefs or pictures, the canopy work and pinnacles forming a kind of framework or shrine. Most superb examples exist at Mosburg, Rothenburg, Nordligen, in Bavaria. In Cologne Cathedral the Agolophus altar is very fine; the churches of Xantern and Calcar, on the Lower Rhine, and Lorsch, on the Upper Rhine, also contain superb Gothic altar-pieces. Carved choir stalls of great elaboration and beauty are to be seen in the cathedral at Ulm, and many other churches. Belgium and Holland contain many very magnificent churches of this date. The superb church of St. Peter, at Louvain, which possesses, perhaps, the most striking interior of any church in the Low Countries, and is no less remarkable for its grand proportions than for the beauty of its furniture, was entirely built during the fifteenth century. Few churches in Europe are better worth seeing than this, and it is somewhat strange that while everyone goes to see the Hotel de Ville, this magnificent church, which is only on the opposite side of the road, is rarely visited by English tourists, although its interior is the best preserved and least altered of all the mediæval churches in Belgium. Its rood-screen, very elegant *sacramentshaus*, and choir stalls are coeval with the building.

The Cathedral of Malines, the metropolitan church of Belgium, with its gorgeous unfinished tower, already 350 feet high, which

was intended to be carried up to the height of 600 feet; the vast Cathedral of Antwerp, with its far-famed steeple, are also of this date. This magnificent tower appears to have been commenced in the year 1423, from the designs of the architect Jean Appelmans. The noble church of St. Jacques, at Antwerp, was commenced quite at the end of this century; and the first stone of the superb church of St. Gommaire, at Lierre, twelve miles from Antwerp, was laid in the year 1425; the beautiful building was not completed until 145 years after. Though rather plain outside, it is internally one of the most striking churches in Belgium, and retains the most elaborate rood-screen in existence, and many other objects of great interest.

All who love art are indebted to the dean of this church for preventing its being utterly ruined by the detestable kind of restoration which is at the present time robbing so many Belgian churches of every object of interest, and which has proved so disastrous at Courtrai and elsewhere. St. Gommaire was ordered to be thoroughly restored, and a Government architect was sent down to the place to carry out this disastrous operation; but the good dean led the architect such a life that he ran away in disgust. The architect wanted to pull down the magnificent rood-screen because it blocked out the view of the chancel, to take down the statues from the columns because they were out of keeping in a Gothic church, and to remove the classical altar-pieces (many of which are constructed of marble) simply because they were not erected until the seventeenth century. But the dean refused to allow him to remove any work of art out of the church upon the ground that it was late and debased in style, and employed an intelligent stone-mason to mend up the stonework where it was too much decayed.

In sad contrast to this we may mention another very remarkable fifteenth century building, the cathedral of Bois le Duc, in Holland. This noble church has been not inaptly styled the Dutch Cologne. In general design, however, it bears a strong resemblance to St. Pierre, at Louvain, though it is externally far more elaborate than the latter church. Like St. Pierre, it contains a great deal of very fine old furniture; amongst other things, a brass font and oak stalls, which are coeval with the building. Unfortunately, the dean and chapter of this fine cathedral determined a few years ago to carry out a thorough restoration, which has resulted in converting the north transept of the church, one of the most magnificent examples of Gothic architecture in the whole of Holland, into a thoroughly modern building—not one single atom of the old work being left, and in place of it we have a lifeless and spiritless imitation. The old carvings which were removed to make way for this were mashed up and made into mortar. This is terribly to be regretted, because Bois le Duc is the only church in Holland which had retained its ancient sculpture. Internally, matters are still worse. The superb rood-screen, the finest example of Renaissance work in Holland, was pulled down and sold because it was supposed to be out of keeping in a Gothic church; the high altar, which though very late in style was entirely constructed of fine marble, has shared the same fate. It is a somewhat remarkable circumstance that this altar and rood-screen should have again become close neighbours, the screen forming the principal entrance to the South Kensington Museum, and the altar has been erected in the adjoining Church of the Oratory, Brompton.

We must no longer postpone making a few observations upon that singularly beautiful feature of Gothic churches, the spire, for, although it is found occasionally in other styles, it essentially belongs to Gothic archi-

ture, and is one of its most marked characteristics. No architectural ornament that was ever introduced is at once so graceful, so solemn, and so dignified; no object so adorns a landscape or gives such an interest to the general aspect of a town or village. The level flats of Lincolnshire and the tame scenery of Northamptonshire are rendered positively picturesque by the numerous church spires seen in all directions, and what a dignity have the graceful spires given to Lichfield, Coventry, and Salisbury. Spires are of two distinct kinds, those constructed of timber, and covered with metal, slates, tiles, or wood shingle, and those constructed of stone or brick.

Examples of both kinds are very numerous in France and England. The stone spire is less frequently met with in Holland and Belgium, and is rather rare in Germany, though some of the German examples are very remarkable for their size and construction. In the south of Europe very few spires are of stone. The two noble ones at Bourges are evidently the work of German architects and masons. In Italy the spire never seems to have found favour. The few that exist are very squat and ill-proportioned. Probably the spire broke up those strongly marked horizontal lines which the Italians seem to have so much delighted in, and possibly they did not well understand how to construct spires, and were too conceited to learn of their northern contemporaries.

Italian architects during the thirteenth and fourteenth centuries were in no way remarkable for their constructive knowledge, and as a rule their buildings are only admirable for detail and ornamentation; they appear, in fact, to have been rather sculptors and carvers than architects in the true sense of the word.

Even the Pisani family failed when they attempted to design a large church, as we see by their Church of St. Antonio, at Padua, the exterior of which is downright ugly, and the Capella della Spina, at Pisa, is a mere pretty toy.

The race of Italian architects really began with the Renaissance, and it is greatly to be regretted that such men as Alberti, San Sovino, the Lombardi, Scamozzi, and Palladio did not live two centuries earlier. Italy might then have had a Gothic style of her own equal to that of France or England, and churches combining the magnificence of northern Gothic with the exquisite sculpture, painting, and sumptuous material of the south.

The spire evidently originated with the simple pyramidal roof, which is so common in Saxon and Norman towers. This became by degrees elongated, and frequently the towers were gabled on each side, as we see at Sompting Church, Sussex, a veritable example of Saxon architecture. Here, as in Germany, the angles of the spire rest upon the apex of each gable, so that the spire or roof is set obliquely to the square of the tower. In Normandy and the north of France, however, the pyramidal roof was constructed of stone, and towards the end of the twelfth century we first find the octagonal spire used. Those of the Abbey aux Hommes, at Caen, are fine examples.

In England we possess very few Saxon or Norman spires. Sompting is, however, a good example of the former style, and those attached to the eastern transepts of Canterbury of the latter.

There are, however, many beautiful examples dating from the earlier part of the thirteenth century. Wilford and Wausted, and the Cathedral, Oxford, and Witney, Oxfordshire, are fine stone specimens. France abounds in thirteenth century spires, those of Coutances, Senlis, Chartres, and St. Pierre, Caen, are very noble examples.



TRANSEPT FRONT OF BEAUVAIS CATHEDRAL.

The thirteenth century spires in Germany are generally of wood. There are, however, very pretty little ones at St. Burkhardt's Church, Wurzburg.

The spire forms a very important feature of the fourteenth century Gothic style, and many of the most magnificent examples, both in this country and on the Continent, belong to this period. The majestic one at Salisbury, and the no less beautiful one of St. Mary, at Oxford; the graceful spire of Ross; those of Heckington, Ewerby, Grantham, St. Mary, at Stamford, Newark; Kings Sutton, and Bloxham, the triple group at Lichfield, and Snettisham, Norfolk, belong to this period. A great difference in design is to be noticed in the style between English and Continental spires. On the Continent, the tower supporting the spire is generally at least twice as high as the pyramidal construction it supports, or, in other words, the spire itself. In some cases the spire proper is a very small portion of the design. At Landshut, in Bavaria, where the tower and spire are 450 feet high, the spire itself is quite a small affair, not more than 60 feet high. At Vienna the same is the case, and even at Strasburg the spire is not more than a fifth the whole height of the entire composition. In England, on the contrary, the spire is often loftier than the tower which supports it; this is the case at Raunds, in Lincolnshire, and Ewerby. There are examples where the spire is as much as three-fifths the height of the whole design, as at Shottesbrook, Bucks, and Ledbury, Hereford. The general rule in England was to make the spire a very little less than the height of the tower, and this is generally found to be the most pleasing proportion.

Of all the Continental spires of the fourteenth century, by far the most graceful in outline is that of Freiburg, in Breisgau. It is one of that class of spires peculiar to Germany, the side being formed of perforated tracery. This generally has a weak effect, and looks metallic, which is painfully apparent in those at Rothenberg and Meisen Cathedral. But at Freiburg the tracery is so rich and the perforations so well subdivided that the impression is not one of weakness, but of elegance. The

groups of pinnacles, which fill in the space between the square and octagonal portions of the tower, are arranged so as to carry down the general outline of the spire, and this gives Freiburg very much the general proportions of an English spire; then, also, its glorious colour adds not a little to the general impression of harmony about this structure. Like the rest of the church, it is built of a rose-coloured stone, which, from the dampness of the climate (Freiburg, in Breisgau, being one of the three places on the Continent which registers the deepest rainfalls in the year), is covered with a rich orange-coloured lichen.

The new spires at Cologne are of the same description as those of Freiburg, but are nothing like so graceful. They are too thick for their height, and the pinnacles at the base of the spires are overdone, whereas the finials which crown the spires are so exaggerated that they look like huge stone mushrooms—they alone would ruin any composition.

One thing that should always carefully be considered in designing a spire is the outline which it will assume when seen on the angles. A spire which looks well when seen from a point straight in front of one of the four sides of the tower will often appear out of proportion with its tower when looked at from a point opposite one of the angles. The skilful architect knows this, and will, if he is wise, design or draw out his spire on the angle as well as in elevation. The sides of a spire are generally slightly curved, so as to swell out a little in the centre. This is called the entasis of the spire, and is somewhat akin to the entasis of the Greek columns to which we have formerly alluded. Very frequently, however, the spire has not an entasis, and the effect is obtained by little projecting gables pierced as windows, or by bands of carving, as at Salisbury, or a little coronal of pinnacles, as at Patrincton, in Yorkshire. The mediæval architects would seem to have lavished an extraordinary amount of thought and skill upon this beautiful feature, and the variety and elegance displayed in their work is most remarkable; so much so that it may be said without exaggeration that there is not a single mediæval spire in this country which is ill-

designed or unpleasing. Even the short, stumpy spires which are not uncommon possess a look of solidity and massiveness which we should scarcely have connected in our minds with this feature. Mr. Ruskin, in a letter recently published, says that "there is no man living who can design a Gothic spire"—they can only copy; and although there may be a slight exaggeration in this, yet there is so much truth in it that nearly all attempts of modern times to introduce original features into a spire have signally failed.

It is a curious thing that in England the spire seems peculiar to certain counties, and as a rule those are flat counties. There are, however, exceptions to this rule, and it does not apply equally well to the Continent.

The greater number and the most beautifully designed spires are found in the counties of Northamptonshire, Lincolnshire, Leicestershire, Warwickshire, Staffordshire, Nottinghamshire, and Oxfordshire, many of the churches of which counties possess this beautiful feature. In the other counties of England only isolated examples occur here and there. Although the spire is undoubtedly a most beautiful feature of Gothic architecture, yet it was never considered a necessary one, and out of the twenty-six cathedrals in England and Wales only eight possess this feature; yet, singularly enough, our modern architects appear to consider it necessary to furnish nearly every little district church with a miserable little starved spire, whereas a fairly proportioned tower of only moderate height would be far more appropriate and effective.

The spire should always be regarded as a luxury in church architecture, and never erected in combination with a cheap or even moderately expensive church. If the sum of money at command in building a church is unlimited, or nearly so, then a spire may be attempted, but not otherwise. Some of our modern churches, with their thin walls, plaster arches, and deal roofs, when surmounted by a lofty stone spire, are as absurd as some wretched drab of a servant of all work, dressed in her kitchen clothes, with her mistress's new Paris lace bonnet on.

(To be continued.)

## COURTLEROY.

By ANNE BEALE.

### CHAPTER XV.

#### MIMICA'S FIRST PROPOSAL.



MIMICA'S garden was one of her most substantial pleasures. In it she forgot her grievances, and would linger the day through amid her flowers, digging and delving, pruning and potting, if Miss Heath would let her. The old gardener was her staunch ally, and many were their joint manoeuvres to supply lack of

funds by cunning and cheap inventions. But when Mimica entered her cherished retirement the morning after her accession of fortune, her schemes for improving it were vast and multiplied. Never had bank notes produced a greater revulsion than those left by Searle, the bailiff, in the schoolroom of Courtleroy. Miss Heath listened with mute surprise to the plans laid out for its disposition; and when old Gandy heard of how they were to purchase

some desirable plants, and to mend the old glass over a certain forcing-bed, he opened his small eyes in astonishment, and exclaimed, "Who's to pay, miss?" For everybody knew the emptiness of their young lady's purse. Mimica longed to reply: "Gandy, I have a pension!" but respect for Searle, whom she had never respected before, restrained her; such is the power of money.

The accession, however, did not make her forget Horace Leste, whose handiwork was visible everywhere, not only among those old-fashioned beds and borders, but in the rustic seats beneath and amidst the grove of trees that surrounded them. Had he not hammered together the falling back and arms of her mother's favourite seat, and had he not created new ones out of all sorts of grotesque branches? Had he not spent more money than he could spare in the rearing of her plants, and afterwards helped to arrange them? And how poor the Lestes all were! and how, for their sakes as well as her own, she longed to be rich! And now how rich she was! Twenty-five pounds!

She and Gandy had been at work together

some time, when he remembered that the vegetables had not been taken to the house, and he went off to the kitchen garden. She remained, cutting off dead roses and tying up weakly shoots, until she was suddenly startled by a rustling in the woods as of a footstep. There were already some fallen leaves beneath the aged oaks, and she and George had rustled them when they were exploring.

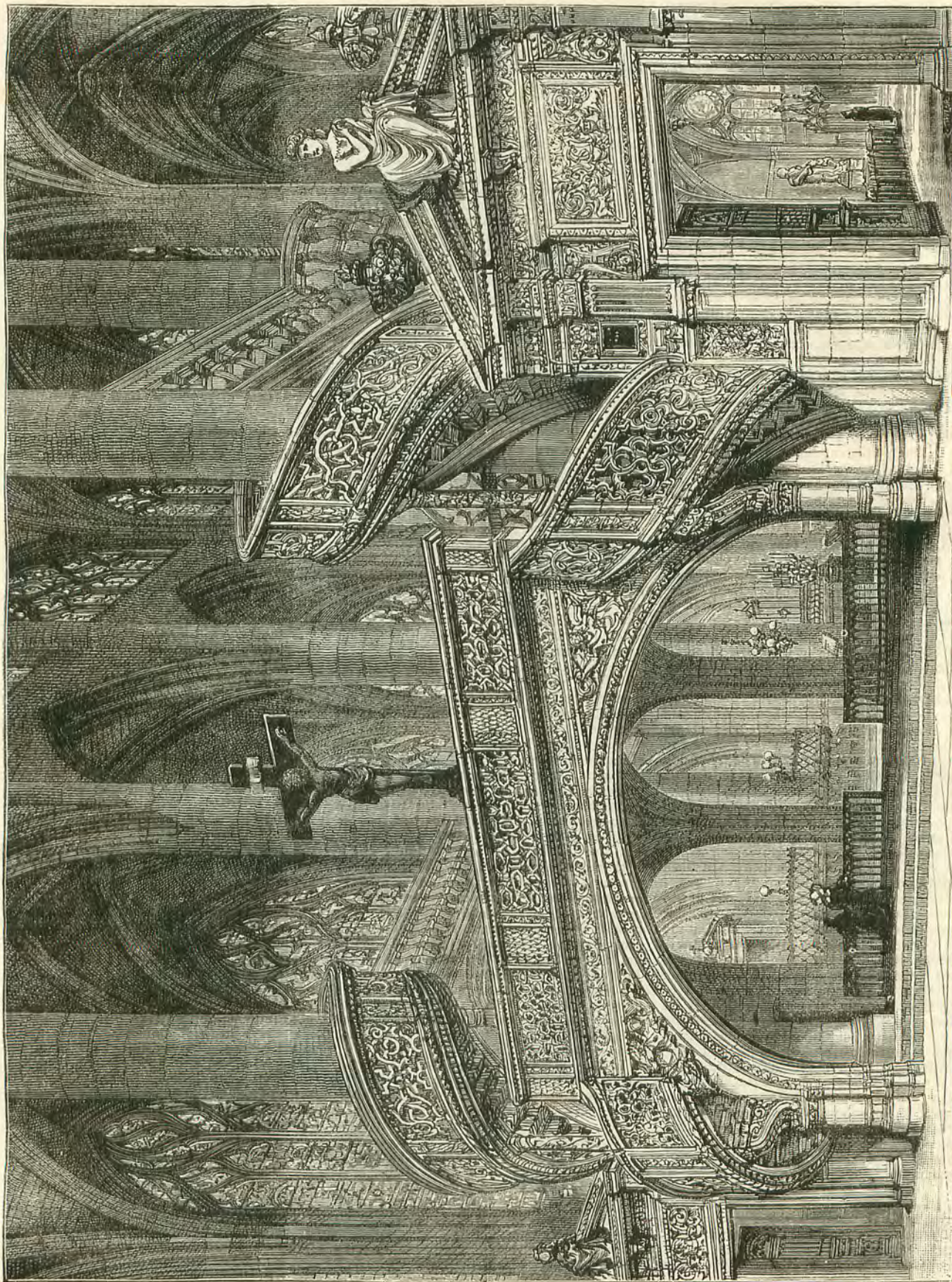
"It is probably George," she thought, pausing, scissors in hand, and glancing through the wicket that led from her bright *parterre* into the grove.

'It was not George, but Mr. Carew.

"I have been watching for that old fellow's departure," were the words that greeted Mimica, as that agreeable young officer pushed through the gate and stood at her side.

She was somewhat taken aback, but not being either self-conscious or sentimental, she received him naturally, though aware that his visit was contrary to rules.

"How did you manage to get into that wood? Have you lost your way?" she asked, quite unaffectedly.



ST. ETIENNE DU MONT, PARIS.

mother to sleep with her fathers. The portion of Scripture from which I afterwards spoke was, 'I saw a great white throne, and Him that sat on it, from whose face the earth and the heaven fled away, and there was found no place for them. And I saw the dead, small and great, stand before God; and the books were opened, and the dead were judged out of those things which were written in the books, according to their works.' It was one of the most solemn assemblies I ever saw, or expect to see, on this side eternity."

"Mrs. Wesley," says Southey, in his life of the most famous of her sons, "had had her share of sorrow. During her husband's life she had struggled with narrow circumstances, and at his death she was left dependent upon her children. Of nineteen children she had wept over the early graves of far the greater number. She had survived her son Samuel, and she had the keener anguish of seeing two of her daughters unhappy, and, perhaps, of foreseeing the unhappiness of the third; an unhappiness the more to be deplored because it was not altogether undeserved."

St. Giles, Cripplegate, is in Fore-street, not far from Finsbury-circus. In this church is the tomb of Constance Whitney, the grand-daughter of Shakespeare's Sir Thomas Lucy, whose deer the great dramatist in his youth is said to have stolen. Constance is shown rising in her shroud from her tomb at the resurrection, and this has given rise to a tradition that "she was buried alive and roused from her trance by the sexton, who opened the coffin to steal one of her rings."

The parish register of St. Giles, Cripplegate, records the marriage of Oliver Cromwell to Elizabeth Bourchier, on the 20th of August, 1620. The bride was the daughter of Sir James Bourchier, a man of some wealth. After thirty-three years of married life a succession of remarkable events landed her husband in the highest station in the land—as Lord Protector of the Commonwealth of England, Scotland, and Ireland. She was Lady Protectress from 1653 to 1658, when Cromwell died. She survived him fourteen years, and died in the house of her son-in-law, Claypole, in Northamptonshire, on the 8th of October, 1672.

Amongst the royalists she had, naturally, every man and woman for an enemy, and at the time the vilest scurrility did duty for loyalty and wit, but we hear no evil report of Elizabeth Cromwell. She was not good-looking, and her ways were rather stingy, but she was a virtuous wife and mother, and a notable housekeeper. "She was an excellent housewife," says a historian not at all well disposed to the Commonwealth party, "as capable of descending to the kitchen with propriety, as she was of acting in her exalted station with dignity; certain it is she acted a much more prudent part as Protectress than Henrietta did as queen. She educated her children with ability and governed her family with address."

The relations between Cromwell and his wife may be inferred from the following short letter sent by the former from Dunbar on the 4th of September, 1650:—"For my beloved wife, Elizabeth Cromwell, . . . My dearest, —I have not leisure to write much. But I could chide thee that in many of thy letters thou writest to me, that I should not be un-mindful of thee and thy little ones. Truly, if I love you not too well, I think I err not on the other side much. Thou art dearer to me than any creature; let that suffice. . . . My love to all dear friends.—I rest thine, Oliver Cromwell.

And here is an epistle from Elizabeth Cromwell to her husband, written from London on the 27th December of the same year, an epistle quite unique in its way—"the only letter extant of this heroine," says Carlyle, "and not unworthy of a glance from us." In the original it is frightfully spelt, but spelling was not a strong point with ladies in those days.

"The Lady Elizabeth Cromwell to her husband, the Lord General at Edinburgh. My dearest,—I wonder you should blame me for writing no oftener, when I have sent three for one; I cannot but think they are miscarried. Truly, if I know my own heart, I should as soon neglect myself as to omit the least thought towards you, when, in doing it, I must do it to myself. But when I do write, my dear, I seldom have any satisfactory answer; which makes me think my writing is slighted, as well it may; but I cannot but

think your love covers my weakness and infirmities.

"I should rejoice to hear your desire in seeing me; but I desire to submit to the Providence of God—hoping the Lord who hath separated us, and hath often brought us together again, will in His good time bring us again, to the praise of His name. Truly my life is but half a life in your absence, did not the Lord make it up in Himself, which I must acknowledge to the praise of His grace. . . . Yours in all faithfulness, Elizabeth Cromwell."

Women were frequently, in the olden time, employed in the very unsuitable occupation of gravediggers, and there was a woman gravedigger at St. Giles, Cripplegate, who used to exhibit the skeleton of Milton the poet, who had been interred in this church, for twopence or threepence a head.

Milton once lived quite near this, in Jewin-street, which we may move on to visit, out of regard for his memory. He was living here when he married his third wife, Elizabeth, daughter of Sir Edward Minshul, in 1664, the year before the Great Plague. She was "a genteel person, of a peaceful and agreeable humour." There was a great difference between her age and the poet's, and she survived him for no fewer than fifty-two years, dying in Cheshire in 1727.

One picturesque feature in the third Mrs. Milton was her beautiful golden hair. Milton intended a compliment to her in his description of Eve in "Paradise Lost," just as he drew the portrait of Adam "not without regard to his own person, of which he had no mean opinion." The "sweet, attractive grace" of Eve is heightened in the poem by her golden hair,

"She as a veil, down to the slender waist  
Her unadorn'd golden tresses wore  
Dishevelled, but in wanton ringlets waved  
As the vine curls her tendrils."

Leaving Jewin-street and crossing Aldersgate-street, we are not long of reaching Smithfield, and with what is connected with that interesting locality we shall begin our next article.

(To be continued.)

## ARCHITECTURE ; OR, THE ART AND HISTORY OF BUILDINGS.

By H. W. BREWER.

### VII.—THE "RENAISSANCE."



HERE is no age about which it is more difficult to write fairly than the sixteenth century. Preconceived ideas, prejudices, and national feelings make it next to impossible for

anyone to take an un-biased view of the great questions which then exercised men's minds. That the art of the period should reflect in some measure

the momentous changes, the religious and political struggles and vicissitudes, the fearful anxiety and uncertainty for the future, the disruption of ancient ties and the fear and timidity at adopting new and untried ones, is

by no means to be wondered at; nor is it strange, under the circumstances, that we should find in the art of the time extraordinary contradictions. There is, however, one feature about the art of the sixteenth century which certainly, at first sight, seems to be such a glaring contradiction to all we know of the history of the time, that it appears quite irreconcilable and unintelligible. It is that, just at the very moment when the influence of Rome in religious and political matters is at the very lowest, when the authority of the Pope is being disputed all over Europe, and when Italy is alternately a prey to France and Germany; when even the city of Rome is sacked by the soldiers of the emperor, its galleries destroyed, libraries burnt, its churches sacked and palaces pillaged—that at this very time Roman art should be carrying everything before it; that the old Gothic style should everywhere in Europe—as well in Protestant as in Catholic countries—be giving way before the new style of architecture, sculpture, and painting introduced from Rome. It is not easy to account for this remarkable phenomenon; it is one of those historical contra-

dictions which cannot be explained or even thoroughly understood. We will, however, give what seem to us to be some of the leading circumstances which may have brought it about.

As we have previously pointed out, down to the tenth century all western church architecture seems to have come directly from Rome or Constantinople; but by degrees the northern and western countries of Europe developed the style which we now (for want of a better name) call Gothic, and this style was, as we have shown, so popular, that Italy—nay, even Rome itself—adopted its ornamental features, and it became distinctly "the church architecture of the west." But in Italy Gothic architecture was at best an exotic, and never took deep root; so that, when in the fifteenth century, with the revival of classical learning (forwarded greatly, no doubt, by the introduction of printing) men began to study the monuments of antiquity, these great works seemed to them to be more dignified and congruous in style than their own architecture. Now just at this time, moreover, there arose in Italy two really

great architects—Brunelleschi and Leon Batista Alberti. The former erected the great dome of the cathedral of Florence, 1420—1446,\* the most surprising constructional work ever achieved by man, when we take into consideration that it was the first dome ever supported upon "a drum" (i.e., a circular perpendicular wall rising above the building upon which it stands). It is also the largest dome ever erected, though that of St. Peter's surpasses it in height. It has but one defect, and that it shares in common with our St. Paul's—a defect which is so gloriously avoided in St. Peter's; it is that, in looking up into Brunelleschi's or Wren's domes we gaze into an atmosphere of gloom, but when we look up into Michael Angelo's dome we look into a heaven of light. Alberti's works are chiefly to be seen at Vercelli and Mantua.

Brunelleschi and Alberti were followed by a perfect constellation of architectural talent. Our space will not admit of our naming these men and their countless works. We must, however, mention Lazzari Bramante (1444—1514) and Baldasari Peruzzi (1481—1536), because these two men really commenced the present church of St. Peter's at Rome. The noble arches supporting the dome are Bramante's work, and the tribune, or western choir,† is the work of Peruzzi; unfortunately, however, Peruzzi did not carry out the internal details of the tribune, and it is only in the grand proportions of this part of the church that we can trace the mighty genius of Peruzzi. If we want to know what he would have done in the way of detail, we must study his magnificent stalls, pavement, and fittings of the cathedral at Sienna.

Giuliano de Sangallo and Raphael made designs for the completion of St. Peter's, but there is great doubt whether anything was erected from their designs though it is evident that the idea of lengthening the nave, so as to convert the plan of the church into a Latin cross, was Raphael's—whereas Bramante had planned a Greek cross. After various changes Michael Angelo was appointed architect, and he returned to the plan of a Greek cross, and designed the superb dome which, however, was not completed until nearly thirty years after his death, which took place in 1563. The transepts and the portion of the nave nearest to the dome were likewise from Michael Angelo's designs, and down to the year 1601 his plans were followed; but the later architects, Carlo Maderno and Fontana, returned to Raphael's plan, and lengthened the nave.

Now, much as men have disputed about St. Peter's—some maintaining that it is the most glorious work that ever proceeded from the hand of man, and others that, taking its size and enormous expense into consideration, it is not an unqualified success—yet all agree that the dome is perfect: at any rate, internally.

Pope and Byron have both sung the praises of this magnificent dome, and their words are worth quoting, as they have both grasped the real method of criticising this wonderful work.

"Thus, when we view some well-proportioned dome

(The world's just wonder, and e'en thine,  
O Rome!),

No single parts unequally surprise,  
All comes united to the admiring eyes;  
No monstrous height, or breadth, or length  
appear:

The whole at once is bold and regular."

—Pope's "Essay on Criticism."

Byron's lines point principally to two remarkable peculiarities about St. Peter's:—

\* When two dates are given for any work, the first refers to its commencement and the latter to its completion.

† St. Peter's, like the old basilica churches, is built west and east; the high altar being nearer to the west than east end.

"—and haughty dome which vies  
In air with earth's chief structures, though  
their frame

Sits on the firm-set ground—and this the  
clouds must claim."

"—even so this

Outshining and o'erwhelming edifice  
Fools our fond gaze, and, greatest of the  
great,

Defies at first our nature's littleness,  
Till, growing with its growth, we thus dilate  
Our spirits to the size of that they contem-  
plate."—Byron's "Childe Harold's Pil-  
grimage."

This refers to the disappointment as to apparent size which people so often experience when they first enter St. Peter's, but which is corrected upon further acquaintance with the building.

It will be seen at once that neither Pope nor Byron criticised the detail, but were both struck at the majesty and general effect of the building. This is really the way to look at St. Peter's; the detail is not worth troubling oneself about, but the general harmony of proportion and the effect of light and shadow are perfect. A Scotch friend of the writer gave an excellent idea of the internal effect of the dome of St. Peter's; he said, "It looks just as if it had cut a great lump out of the sky and shut it up in the building."

We must, however, leave St. Peter's, and endeavour to explain, as far as we can, how it was that the Revived Classical style, after being established in Italy, found its way into France, Spain, Germany, and England.

Now the Renaissance of Italy differed from that of all other countries in this respect: there was no Transition period between Gothic and Renaissance; buildings were either erected in the Italian Gothic or in the re-introduced Classic style, though the earlier examples of the latter style were far more beautiful and pure than they became after the Classic revival had things all its own way. This may be accounted for by the fact that the Early Renaissance architects of Italy were such magnificent artists, whereas the later men, Carlo Maderno, Bernini, and that school, made up by eccentric novelty what they wanted in genius. But in more northern countries and in Spain we find a distinctly Transitional style, partly Gothic and partly Renaissance; and in France, Spain, and the Netherlands, this style developed such extraordinary beauty, such delicacy of detail and elegance, united to such masterly treatment of effect, that it may be regarded as a separate style of architecture from anything that had gone before or which followed after it.

It is difficult to trace exactly how the beautiful Renaissance first arose in France, but it would appear to have originated about the year 1500; and by some writers it is stated that a certain Fra Giocondo introduced what they call the "Blooming style,"\* and this, they maintain, was the origin of the French Renaissance; but the difficulty about the matter is that, although almost every Early Renaissance building in France has at some time or another been attributed to this Fra Giocondo, careful investigation has failed in really proving him to have been the architect of any existing building in that country. The beautiful Early Renaissance staircase and courtyard of the Château de Blois, which were pointed out as his work, are not by him; and it is almost certain that the now destroyed Château de Gaillon, erected in 1510, and formerly attributed to Giocondo, was the work of Pierre de Valence (the only portion of this château preserved is a singular kind of gateway, which has been rebuilt at the Ecole des Beaux Arts in Paris), so what the Blooming style was, and what Fra Giocondo really did

for French architecture, we are unable to say. In all probability he is only one of the many Italian architects whom the French and English kings, during the sixteenth century, imported for the purpose of forcing the Revived Classical style of Italy down the unwilling throats of their subjects. In France, fortunately, a kind of compromise was arrived at, and buildings, especially churches, were erected which possessed the general outline and arrangement of the Gothic style, combined with very elegant quasi-Classical detail.

The earliest buildings in the Renaissance style are the Palais de Justice at Dijon, 1510, the Palais de Justice at Orleans, the castle at Blois, part of the church of Le Ferte Bernard, the front of the cathedral at Dijon, the church of St. Eustace, commenced in 1532, probably from designs of Philibert Delorme, the churches of Gisors, St. Clotilde at Andelys, and St. Etienne du Mont. This fine work probably dates from about the year 1540, as the choir of the church was very considerably altered, if not entirely rebuilt, after the year 1537. Germain Brice\* says that the celebrated Jean Goujon, the most renowned of all the French sculptors, who was killed in the Massacre of St. Bartholomew, carved the crucifix and other statues connected with this work, therefore it must have been erected between 1537 and 1572.

The jube or rood screen of St. Etienne, with its exquisite staircases winding round the columns on either side, the wide elliptical arch supporting its gallery, parapets composed of knotted tracery, and the finely-designed doorways leading into the aisles, form perhaps the most charming examples of this style in existence.

Probably Italian ornamentation was introduced into France, Germany, and England about the same time. Kugler quotes a passage from "Mertain's Prague" to the effect that the Italian style was introduced into Germany and France in the same year, 1489, and that the first buildings erected in the new style were a hall in the palace of the Hradschin at Prague, and a building at Solesme, in France; but the writer has been unable to discover any corroboration of this statement. The earliest existing Renaissance building, as far as Prague is concerned, is evidently the Belvedere erected by Ferdinand I. in the king's garden, a very beautiful example of the style, evidently the work of an Italian, but it cannot be earlier in date than 1558, as Ferdinand was not elected to the empire until that year. It consists of a large hall surrounded externally by an arcade supported upon Ionic columns. Two of the earliest Renaissance buildings in Germany would appear to be the buildings of Otho the Wise at Heidelberg Castle, 1556, and the fine double portico of the Town Hall at Cologne, 1569—1571. It is true that before this date we find examples of stained glass, monuments, and altar-pieces, which show an admixture of classical and Gothic detail. For instance, the shrine of St. Sebald at Nuremberg, 1506—1519, and other monuments by Peter Vischer; and the beautiful tomb of Bishop von Bibera, executed by Tilman Riemenschneider in the cathedral of Wurzburg, 1521, and others, have much Italian detail about them, though in general effect they are Gothic.

In the Netherlands and in England the earliest examples of the Renaissance are also confined to monuments and church furniture. In the side-screens of the choir at Winchester Cathedral, erected by Bishop Fox, the Chantry Chapel of Bishop West at Ely, and Sir Thomas More's chantry at Chelsea, we find friezes and capitals which are classical in character, though mixed up with Gothic

\* "Description de la Ville de Paris, 1752;" a very scarce book.

\* "Blühenden styl."—Kugler.

tracery and mouldings. There can be no doubt that the revived Classic or Renaissance architecture was introduced into England, France, Germany, and the Netherlands by the rulers of the land. We know, for instance, that Louis XII. imported Fra Giocondo; Henry II. of France, Dominic Cortana; and Francis I., Serlio, and others. Maximilian did the same for his superb mausoleum at Innsbruck, and Henry VIII. brought over Pietro Torrigiano to erect the tomb of his father, 1512.

The Tudor sovereigns were terrible hands at employing foreigners, and their courtiers followed the example of "their royal master." Hence we find Torrigiano at work at the Rolls Chapel upon the monument of Dr. John Young, Master of the Rolls, a most beautiful work, by the way, and the finest example of terra cotta in England. Then we find Protector Somerset bringing over John of Padua to design Somerset House, and Sir John Thymme, his secretary, employing the same architect at Longleat. The fact is, it was as bad to be an English architect, sculptor, or painter in the days of the Tudors, as it was in later times to be an English musician, though it must not for a moment be supposed that Englishmen could neither build or paint in the sixteenth century. The magnificent chapel of Henry VII. alone, commenced 1503, under Sir Reginald Bray and Prior Bolton, and in all probability their joint design, would alone dispel any doubt upon this point; but in addition to this we find almost countless churches erected and in course of erection at the period of the Reformation. For instance, the exquisite nave and tower of Lavenham Church, Suffolk, 1529; Bath Abbey Church, 1500-1539; St. Stephen's Church, Norwich, 1530; St. James's Church, Bury, 1529; the altars and choir screens of Winchester Cathedral, 1519-1528; Whiston Church, Northamptonshire, 1534; and Trinity College Chapel, Cambridge, 1555.

There is great reason for supposing that Cardinal Wolsey was himself a very accomplished architect. There is a decided and very marked character about all his buildings, and an individuality which can only be accounted for by supposing either that he designed them himself or, at any rate, directed those who did. Two things, however, greatly surprise us: we should naturally have expected from the generally-received view of Wolsey's character to have found a great profusion of ornamentation and a superabundance of detail about his buildings, especially when it is taken into consideration that such a sumptuous treatment would have been quite in the spirit of the age and the style in vogue. And from his intercourse with the king, who, as we have previously pointed out, so greatly favoured the revival of classical architecture; and with the Court of Rome, where that architecture was exclusively in use, we should also have thought that his buildings would have abounded with features borrowed from the new style, even if they were not altogether Italian or Renaissance. But here again we are met by one of those extraordinary contradictions which we have previously alluded to in the art history of the sixteenth century, for, strange to say, Wolsey's buildings are remarkable for the entire absence of any Renaissance or Italian feeling about them, and they also form a contrast to the works of his contemporaries by their severity and sparing use of ornamentation. Moreover, we can only find one case in which the appointment of a foreign architect can be traced to Wolsey. It was in his purchase of a sarcophagus, to serve as his own coffin, from Torrigiano. This sarcophagus, though of Italian marble, is perfectly plain and devoid of ornament. It now contains the body of Lord Nelson, and may be seen in the crypt of St. Paul's.

The earliest work of Wolsey with which we are acquainted is the beautiful tower of Magdalene College, Oxford. It is a most noble work, the proportions of which are studied with an amount of subtlety and a knowledge of optics worthy of the Greeks. Although the effect of the building is rich, yet it is extraordinary when one comes to examine it how very little mere ornament there is about it.

The chapel which Wolsey built at Windsor, and which used to be called Wolsey's Tomb-House, was, before the recent decorations and conversion into a memorial to the late Prince Consort, a finely-proportioned but decidedly plain perpendicular building. His buildings at Christ Church, Oxford, and Hampton Court, also show the result of dignified simplicity and solidity, rather than any striving after magnificence by the use of ornamentation or elaboration. The same may be said to apply to what we know of his buildings at Whitehall. If, as the writer surmises, Wolsey was his own architect, he must be regarded as the last great Gothic architect which England produced.

It is by no means improbable, also, that the attachment to Gothic architecture shown by the University of Oxford, and the fine late Gothic churches erected in Suffolk, may be traced to his influence.

Even after Wolsey's time, however, our English architects and workmen were capable of designing and executing good Gothic work; but unfortunately it was looked upon as a sign of learning to admire classical architecture and to despise that of our own land. The whole age, in fact, was brimful of classical affectation, and we see it exemplified in the inflated and pompous monumental inscriptions of the time, and in the absurd classical allegories and pageants which so delighted Henry VIII., Francis I., and Elizabeth, and with their "salvages," "geni," "gnomes," virtues, and vices, "in the style of the antique."

The Renaissance style was, in fact, patronised alone by the learned, and as the courtiers of the time desired to be considered either learned themselves, or patrons of learning, they took it up, and either really despised the old Gothic style of their fathers, or pretended to consider it barbarous.

With the people themselves, however, both here and on the Continent, matters were widely different, and their sympathies were entirely with the Gothic style; and although in England few churches were built during the period immediately following the Reformation, yet those which were erected in out-of-the-way places were Gothic, and this continued to be the case even down to the time of the Revolution of 1688. Stene Church, Northamptonshire, 1620; Stanton Harold Church, 1653; Low Ham, Somerset, 1620; parts of Brancepeth Church, Durham; and Charles Church, Plymouth, 1646-1664, are not unpleasing examples of an attempt to keep alive Gothic architecture; and the clerestory of the nave and tower of Chastleton Church, Oxfordshire, rebuilt in 1688, would, without examination, pass for tolerable Gothic.

The tenacity with which the Gothic style held its ground in Belgium is quite remarkable. The magnificent Dominican Church of St. Jacques, at Liège, which is quite pure Gothic without any admixture of Classic, dates from 1522-1558; and the fine Dominican Church of St. Paul at Antwerp dates from 1546; St. Elizabeth Mons, 1516-1580; and the glorious church of St. Wauduin, at Mons, was in course of erection as late as 1589. All these buildings are pure Gothic work, and show no Italian influence whatever.

In the Roman Catholic parts of Germany we find the religious orders—the Dominicans, Franciscans, and the Jesuits—using the Gothic down to the year 1700. The great church erected by the last-named order at Cologne

may perhaps be regarded as the last really magnificent church erected in the Gothic style. Kugler speaks of it as a "brilliant design, and a most remarkable example of constructive skill." It has a nave 100 feet high and 40 feet wide, and its stone vault is unsupported by buttresses. All the arches are acutely pointed, and although there is a slight admixture of Italian work in the details, were it not that its date is known to be 1629, one would certainly have dated it 120 years earlier. Of course, with the introduction of the Renaissance, architecture ceased to have any religious signification. Roman Catholics, Anglicans, Lutherans, and Calvinists built their churches in any style which suited their taste, just as they do now. As a rule, it may be stated that when the king or court erected a church it was built in the Renaissance or Italian style, and when the people erected it they chose the Gothic style. Thus we see King James I. employing Inigo Jones to disfigure Old St. Paul's by Grecian porticoes, and converting its Gothic pinnacles into classical obelisks, at the very time that that celebrated architect was erecting a Gothic chapel for the benchers of Lincoln's Inn.

Before concluding this portion of our subject, it is advisable that we should just attempt to explain why it is that people are more attached to Gothic architecture, especially in churches, than to the Classic styles. Why is it that when we look at Westminster Abbey or Canterbury Cathedral we all feel such a love for the building, and, much as we may admire St. Peter's or St. Paul's, we do not feel the same emotion? Is it religious sentiment? No, we think not, and for two reasons: one is, that men who have no religious belief whatever feel this influence. One of the most enthusiastic admirers of Gothic churches which the writer has ever met was a French Communist and an avowed atheist. Again, if it were a purely religious sentiment, why should a building erected for the same high purpose in one noble style of architecture affect people in a totally different way from that erected in another style, no less noble and worthy of its purpose? If we admit that a delight in seeing magnificent temples erected to the worship of the Almighty is a religious sentiment, we cannot admit that it could lead us to discriminate between two styles, both of which have been sanctioned by centuries of use amongst Christians.

We take it, that what lies at the root of the matter is rather a poetical than a religious feeling, and we believe that it is to be traced to two causes. One is, undoubtedly, the antiquity of our Gothic churches. We feel, for instance, that if Canterbury or Westminster were destroyed or burnt down, no power on earth, no amount of money, no architectural skill could replace them; but if St. Peter's or St. Paul's were burnt down, provided that careful drawings existed and a sufficient sum of money were at hand, they could be replaced without any very serious loss! The other cause is the intricate subdivision of great Gothic churches, which is the principal element of that mystery which is so captivating to the mind; in fact, the poetry of the building.

There is also another point which must be taken into consideration. A Gothic cathedral is the union of many ideas, and the thoughts of many minds united together in one building; every architect, every carver, nay, almost every mason or workman, has left his individual character stamped upon the portion of the building which he executed; but in a great classical church we see alone the evidence of one master mind—that of the architect; the carver, the mason, and the workmen were only so many machines carrying out his views, and the less individuality they introduced into the work so much the better.



Thus, in a Gothic church the effect is composed of the combination of numerous parts, each possessing an individual interest of its own; but in a great classical church the various parts are of no individual interest except as parts of one single great scheme. And from this it follows that in a Gothic church there is no incongruity or discord produced by variety of dates or styles; the nave may be Norman, the transepts Early English, the choir Decorated, and the towers Perpendicular; but in a classic church such a variety of styles would be incongruous and discordant. We see even at St. Peter's, that although Maderno, Bernini, and the later architects attempted to copy Michael Angelo's style, every variation which they made from the original design is a defect; even the unintentional exhibition of individuality in the detail is a blot, and detracts from the effect of the building. This is one of the reasons why, in point of detail, St. Paul's is more happy than St. Peter's. Wren fortunately lived long enough to superintend the completion of his work, and to prevent incongruities being introduced into its detail by other hands.

From this it will be seen that if we want thoroughly to understand or criticise a great classical church we must confine our attention to the general effect of the whole building, and endeavour to understand what was the precise object which the architect had in view when he designed it; then, having satisfied our minds upon this point, we must attempt to judge the merits of the building from the architect's own standpoint. Do the

proportions and general grouping together of the edifice serve to carry out the effect which he must have intended, or do they fail in conveying the right impression? For instance, if the building has a heavy, gloomy aspect, we may take it for granted that the effect of solidity and solemnity intended by the architect has not been successfully achieved—that some particular parts (the columns, for instance) are too thick and clumsy, and serve by their ill proportion to overdo the idea of solidity. If we see that an effect of lightness and airiness is intended—as, for instance, in the interior of the dome of St. Peter's—we must notice how far the architect has scored a success, and where he has failed; because, in a building, however light, however graceful it may be, there must be no appearance of instability or weakness. And here we see the perfection of the dome of St. Peter's; that, although it seems "to hang in air," yet it looks as firmly seated as if it rested upon a rock, while the vast triumphal arches which support it, though massive and solid, produce no effect of heaviness or clumsiness.

Our readers will at once see from this how much more difficult it is to criticise a classical than a Gothic building; that, in fact, to appreciate thoroughly a great Italian church, a very considerable mental process must be gone through; and a fair knowledge of architectural rules is absolutely essential, because all classical buildings are bound to follow certain definite laws of proportion and clearly-defined rules as to "solid and void." And these laws may not be transgressed; they are like the

laws of harmony applied to a musical composition in "the strict style." And it is because these laws are not observed in Gothic architecture that Evelyn and other writers in the seventeenth and eighteenth centuries—in fact, even the great Sir Christopher himself—thought Gothic architecture barbarous. They said, "here is an architecture which follows no classical rules of proportion, which violates all laws of architectural harmony; uses in the same building arches of various shapes, places 'voids' over 'solids' and crowds solid masses over 'voids'; its construction is a contradiction to every received precedent, and its ornamentation applied at random and without reference to architectural propriety."

All this seems to us to be most absurd, and we say at once it is judging the style by criterions and tests which do not apply to it, the very truth of which it denies, and often contravenes; these laws are applicable enough to classical buildings, but not to the Gothic style, which is bound down by no arbitrary rules or aesthetic principles, owes allegiance to no prescribed laws of proportion, appeals more to the feelings than to the understanding, depends more upon artistic effect than scientific excellence, captivates the mind by its mystery and poetry, and fascinates the eye by its intricacy and variety—it is romance in brick and stone. In short, it may be said that "the Classic styles are the prose of architecture, Gothic is its poetry; the Classic its speech, and Gothic its song."

(To be continued.)

## AN ARTIST'S MODEL; OR, JANET'S MISTAKE.

### CHAPTER III.



"H," said Janet's neighbour, "there is Claud Lester. It is not often that he emerges from his studio, and comes into society. But it is said that he goes everywhere just now; he is looking for a model for Jephthah's daughter in his great Academy picture, as he says the kind of head he wants is not to be found among the professional models."

The name mentioned was that of one of the most distinguished and successful painters of the day, and was well known to Janet. Remembering his earnest

gaze at her, it occurred to her to wonder whether it were possible that he should have discovered in her some resemblance to the ideal he was seeking to realise. Then the thought suddenly rushed into her mind—"If it were so, here might be a means of earning money such as she was seeking. But, should she have courage to seek it in this direction?" Feeling a necessity to think the matter over quietly in her own room, she rose hurriedly, found her hostess, and took leave; not, however, unobserved by Claud Lester, who, as soon as she had departed, approached Mrs. Delamere and inquired who she was.

To go back to our friend, Alan Forsaith.

On leaving Skarran he went direct to Edinburgh to take up his work where he had

left it when starting for his holiday. He wrote a few lines to the minister, telling him of his safe arrival, and speaking in grateful terms of the friendship which had been shown him at the manse; then he resolved to set steadily to work and not write any more until he could tell them that his prospects were brightening.

Six months later he was appointed director of some art classes at a good salary, and his pictures began to sell. Then he wrote again to Mr. Macfarlane, telling him of his good fortune, and asking that some of the family would write and let him know that they were all well. When the time arrived at which he thought he might fairly expect an answer, he became painfully anxious, several more days elapsed, and then his letter was returned to him through the post, having been first forwarded from Skarran to an address in Glasgow, whence it was sent to him endorsed "Gone away; no address."

Alan was fairly bewildered. What could have happened? It was as if the earth had opened and swallowed up for ever these friends with whom he had been so intimate for those precious weeks in the past autumn. He grew restless and unhappy, and resolved, as soon as he could possibly leave his work, he would make a journey to Skarran and to Glasgow and find out what it all meant. Just now, however, the board of management of the institution by which he was employed were arranging to send him on a special mission to London, so his journey north must be delayed for some weeks.

The business in London proved somewhat tedious, as he had constantly to wait for fresh instructions from Edinburgh. The first leisure afternoon he had he turned into the Royal Academy, which was just opened for the season, and wandered listlessly through the crowded rooms, picking out here and there a

picture which could be seen without too much trouble. In the large centre room a great crowd was collected round one particular picture. He felt too dispirited to force his way through, so he sat on a sofa opposite and referred to his catalogue. "Ah!" he muttered, "Lester's picture of Jephthah's Daughter. The picture of the season. I wonder if it is worth the trouble of squeezing through the mob for."

While he was hesitating, the crowd opened for a moment to allow a lady to pass out, and he caught a glimpse of the picture. In a moment his attention was arrested, for on the canvas before him he saw depicted the face of Janet Macfarlane, lit up with an expression which he had seen a dozen times when she had been relating or listening to some story of heroism or self-sacrifice—an expression which he thought the noblest he had ever seen on any human face. He waited to obtain a good view of the picture, and the longer he looked the more firmly was he convinced that Janet alone could have sat for it.

He hurried to his hotel, and having ascertained Claud Lester's address from the catalogue, wrote him the following letter.

"Dear Sir,—For some weeks past I have been trying in vain to ascertain the present address of some friends of whom I have lost sight in an unaccountable manner—the family of the Rev. James Macfarlane, late of Skarran. On visiting the Royal Academy to-day, I was struck with the likeness of your figure of Jephthah's Daughter to Miss Macfarlane, which is so remarkable that I am convinced it cannot be accidental. If you can and will help me to find my friends, I shall be extremely grateful for your assistance. With apologies for troubling you—Faithfully yours,  
ALAN FORSAITH."

Having dispatched his letter, he awaited a reply with the utmost impatience. All the

of his face had softened. Mimica's slightly bantering tone had done what argument could not.

"Tell them that I cannot see them to day, but that I will visit them with you before I leave Courtleroy," he said.

"And I will add that I am sure you have a very good character, or you would not have been kind enough to promise this," she returned, her face lighting up with sudden joy.

He watched her as she went hastily to give his message, and, strange to say, wondered if she always wore that broad-brimmed straw hat with its strip of black velvet, that greenish

gown, and black cloth jacket. He wondered, also, if other girls would look so graceful and well dressed in such simple attire. He was actually beginning to feel a sort of interest in his niece, and all of a sudden Sir Joshua's hint concerning his son occurred to him.

"Lady Helena scheming still!" he almost said aloud. "Not tired of wrecking lives. I should like to circumvent her."

He fell into a reverie which ended in sleep, for he was literally worn out, mind and body, by the rapid occurrences of the last few days. When Mimica returned with messages from the tenants, she found him thus.

"Dare I? He is my mother's brother," she thought, as she leaned over his chair.

She pressed a light kiss on his forehead, and drew back affrighted, for his lips moved, and she did not wish to awaken him.

"Margaret," he murmured, and a smile so tender touched his mouth, that Mimica was astonished.

"Is this what it is to love?" she thought. "Poor Horace! I do not dream of you or think of you thus, and yet I am truly attached to you. I wish you had not said those words to me."

(To be continued.)

## ARCHITECTURE; OR, THE ART AND HISTORY OF BUILDINGS.

FROM THE SIXTEENTH CENTURY TO OUR OWN TIME.

By H. W. BREWER.



THE most marked feature of the latter part of the sixteenth century is the introduction of the so-called Elizabethan style, though it would be more correct possibly to call it Jacobean, because most of the great mansions in this style were really erected during the

reign of James I. The style is highly picturesque, but owes much to the cheerful colour of the brick-work and delightful surroundings of our old English manor houses; it is, however, neither artistically nor scientifically a noble style of architecture, being, in fact, a clumsy imitation of the Flemish Renaissance style, which was in its turn a kind of mixture of French and Italian Renaissance. Much of the internal work of our English houses of this date was really executed by Flemish carvers; thus the galleries of the hall at Hatfield are by "a certain Janivire." John Thorpe erected many of these Elizabethan houses—amongst others Woollaston and Holland Houses; he is said to have been a pupil of John of Padua, and continued that master's work at Longleat; his services seem to have been greatly in demand by the English nobility of the time, who possibly thought that the next best thing to a foreign architect was an Englishman who had been brought up under foreign influence.

There is, of course, much that is charming in these Elizabethan mansions, though it must be owned that the ordinary farmhouses and cottages of the period which were erected by local English masons are far better architecture; they are free from the affectations of classicism, and possess no busts, urns, obelisks, satyrs, griffons, and imitations of the five orders piled one over the other, but are sounder than the mansions of the Jacobean and Elizabethan nobility. Barrington Court, Somersetshire, and Bovey, Devonshire, are good examples of the common-sense architecture of the period.

The old timber houses of Cheshire and Lancashire are also excellent examples of architecture. The style which we now call Queen Anne came in towards the close of the seventeenth century, and of right belongs to the reign of

Charles II. The more severe classical style introduced by Inigo Jones, and continued by Sir Christopher Wren, soon carried everything before it. The City churches (especially that of St. Stephen, Walbrook) are excellent examples of this style. Their pretty spires break the otherwise monotonous sky line of our vast city, and serve, by their delicate and slender proportions, to give size and dignity to Wren's mighty dome. The churches themselves, although very plain externally (they were for the most part built in narrow streets and surrounded by lofty houses), yet often are most elegantly designed internally. This is especially the case with St. Stephen's, Walbrook, and St. Mary, Abchurch; both show most remarkable architectural skill, and are as different as two buildings can well be. St. Stephen's is divided into a nave and four aisles, transepts, and a short chancel or altar recess, by four rows of lofty Corinthian columns, and has a small dome over the intersection. This interior is very beautiful, and it is almost incredible that such a grand effect can be got out of a building less than 100 feet long. Wren considered this interior his masterpiece, and most architectural critics have been found to agree in his verdict.

St. Mary, Abchurch, has no pillars at all; it is nearly square, and is covered with a domical ceiling. In the hands of any man who was not a master of his art the effect would have been hideous; but Wren has treated the whole so skilfully, that the interior has a singularly pleasing effect.

With regard to St. Paul's, the building has to struggle against two very adverse circumstances. The first is that, as it is the only cathedral in England which is not in the Gothic style, people will insist upon comparing it with the Gothic cathedrals; and the other is that it bears such a similarity to St. Peter's, Rome, that one cannot help comparing it to that magnificent church, greatly, of course, to its disadvantage.

Now, it must be at once acknowledged that St. Paul's falls far short of St. Peter's in many respects. Rosengarten, the great German critic, speaks of St. Paul's as "a building marked neither by elegance of form nor vigour of style." This is very unjust, for it cannot be denied that St. Paul's possesses (externally, at any rate) considerable originality and grandeur of treatment.

Although a magnificent church, St. Paul's has several great defects; the lighting of the interior, for instance, is thoroughly unsatisfactory; the church is sombre and dismal—not the "dim religious light" of the poet, but a disagreeable gloom and obscurity pervades the whole building. It is often brought as a charge against Gothic churches that they

are dark, but we defy those who bring this charge to point to any Gothic cathedral which is as badly lit as St. Paul's.

The interior of the dome, instead of casting a magnificent flood of light into the building, as it does at St. Peter's, Rome, is especially gloomy. The same may be said of the clerestory of the nave and choir, whereas the windows in the aisles, which are low down, throw a most unpleasant glare into those portions of the building; the result is, that instead of having beautiful beams of light entering the church from on high and penetrating through the dimness, creating that beautiful "chequered shade" which is so exquisite in our Gothic churches, or the vast and magnificent flood of light entering from the dome leaving other portions of the church in a rich, golden shadow, as is the case with St. Peter's, Rome, we have nothing but a murky kind of reflected light cast up into the church from the pavement of the aisles. We shall presently see what it was that led Wren to adopt this most unsatisfactory treatment.

For some reasons which we cannot explain or understand, Wren, instead of supporting his dome upon four great arches with vast solid piers between them, conceived the idea of making it rest upon eight arches of equal span, the effect of which is decidedly weak, and, as Mr. Ferguson has pointed out, the dome appears to rest upon eight sharp points, or inverted triangles.

The construction of the dome itself is exceedingly clever and economical. Instead of being a double dome of masonry like St. Peter's, there is an internal dome of brick-work, over which rises a hollow funnel of the same material supporting the lantern. The external dome, which is nearly eighty feet above the internal one, is a wooden structure covered with lead. Some writers have regarded this as a despicable sham, and others describe it as a triumph of construction. The fact is, it is neither the one nor the other. If it were a complete success its great economy and enormous saving of material would be quite sufficient excuse for such a treatment; but, on the other hand, it is undoubtedly the main cause for the gloom which pervades the interior, because, in order to support the upper drum, which externally conceals the funnel, a colonnade is carried in front of the windows, which darkens them, and the lantern is removed to such a distance above the inner dome that the latter receives no light from it.

Externally the effect is very magnificent, but it is one of those cases in which the interior of the building has been sacrificed for the exterior. It is extremely probable that Wren had recourse to this plan because the supports which he had provided for the dome

were insufficient to bear the weight of an external dome of solid masonry. It must not also be overlooked that a great risk from fire was incurred by this mode of construction, and if, as has been so often the case in other buildings, the plumbers in mending the lead-work were careless about their bracers, and were to drop a few lighted coals amongst the masses of timber forming the external dome, we tremble to think what might be the consequences.

Another far less excusable sham has been had recourse to by Wren in this church. In order to conceal the flying buttresses which support the vaulting, the walls of the aisles have been carried up to a height level with the roof of the clerestory. Now, this was not only totally unnecessary, but a most needless piece of extravagance, and it moreover blocks out a great deal of the light from the clerestory windows, and is another of the causes of the gloom of the interior. In one respect, however, St. Paul's certainly surpasses St. Peter's, and that is in its detail.

In St. Paul's, it greatly helps the general effect of the building, is quiet and unobtrusive, and is, moreover, elegantly and charmingly designed, whereas much of the detail of St. Peter's, especially where it has been added after the death of Michael Angelo, is often obtrusive, coarse, and exaggerated; the workmanship of St. Paul's throughout is superior to that of St. Peter's, nor must we omit to notice the great beauty of the choir stalls, both in design and execution, or the charming metal-work of the gates and screens of the choir, which serve to show that the art of wood-carving and working in metals was in a high degree of perfection in this country at the close of the seventeenth century.

Externally, few if any Italian churches surpass St. Paul's, either in general composition or in detail, but the interior has been so sacrificed to obtain external effect, that it is neither worthy of its situation nor its great architect.

Hawkesmore, who was a pupil and follower of Wren, was a very powerful architect, and in Christ Church, Spitalfields, and St. Mary Wolnoth, he has left us excellent examples of his skill. His western towers of Westminster Abbey,\* and second quad of All Souls' College, Oxford, though good in general effect, are not so satisfactory; the fact is, he was working out of his element when he attempted Gothic architecture. The architects and writers of the seventeenth and eighteenth centuries misunderstood and despised the Gothic, and although Wren and Hawkesmore erected Gothic buildings, they would appear to have done so under protest, and smuggled into these works Classical detail wherever they could; they had, in fact, little real sympathy with the style. Hawkesmore's first idea was to convert the whole of Westminster Abbey into an Italian church, just as Inigo Jones had done with the exterior of the nave of old St. Paul's, and his designs for this singular transmutation still exist. They are very clever in their way, but we must be sincerely thankful that they were never carried out, though Westminster Abbey was adorned with a huge classical altar screen and obelisks at the entrance to the choir. These, however, have been long since removed.

By the time of George I., Gothic architecture may be said to have ceased to exist as a style of church architecture, because the few ecclesiastical buildings erected from this period until Pugin's revival were either mere Italian buildings with bits of Gothic detail, or they were caricatures of ancient architecture. The cottages and farmhouses in remote parts of the country, however, partook to a certain amount

of Gothic character quite down to the time of the French Revolution, but that terrible event seems to have given a death-blow to all schools of architecture; not that the wickedness of the Revolution, or its violence or cruelty, destroyed the art, because it had lived through times as cruel and bloody, but there was one thing which architecture could not live through, and that was the fearful sham of that age: the mock "liberty," the pretended "equality," and spurious "fraternity" were too much for the art, and from that time to this there has been a want of genuineness, honesty, and congruity about it which it seems impossible to get rid of; its value as a witness to history has entirely gone.

We, for instance, now see buildings erected in imitation of Egyptian, of Greek, of Mediæval, and of Renaissance, but we have been unable to build anything in the style of our own day. The architecture of all former ages told us something of the feelings, religion, manners, and customs of the time, but since the French Revolution architecture has told us nothing. We find in the same street, and erected at the same time, Greek temples, Roman archways, Gothic churches, and Renaissance houses. England, it is true, did not rush into these absurdities so early as the Continental nations which were more directly under French influence. With good old King George III. on the throne we contented ourselves with a style of building which was often supremely dull and uninteresting, but respectable and free from sham—Baker-street, for instance. The houses are well and substantially built, and the workmanship sound. The churches were certainly not elegant, but they were well-built, and free from pretentiousness.

At the commencement of George III.'s reign, English, or, at any rate, Scotch architects were still capable of designing really good buildings, as we may see from the numerous and excellent houses erected by the brothers Adam, of Edinburgh. Charlotte-square in that city is a dignified example of their work. The internal ornamentation of their buildings is exceedingly graceful, and some of the charming ceilings and mantel-pieces designed by the Adams are still to be seen in the Adelphi-terrace, Strand. Although the exteriors of their houses are often perfectly plain, yet there is always something pleasing about their proportions, and what little detail is introduced is always thoroughly good. Architectural anachronisms were, of course, not wanting at this time, and the fiddle-faddle and sham Gothic of that old dilettante and gossip, Horace Walpole, found imitators and admirers.

The title of "Brummagem Gothic" has been bestowed upon this style on account of the cast-iron Gothic stoves turned out at Birmingham, but it is rather unfair to our great Midland city, which is by no means devoid of fine modern buildings, and has produced better modern metal-work than any town in England. Another exception to the dullness of English work at the close of the eighteenth century is that series of stately public buildings in Dublin, consisting of the Custom House, 1781—1791; the Bank of Ireland, about 1785 (formerly the Houses of Parliament); the Four Courts, 1786—1800; and the Rotunda, which are amongst the finest modern municipal buildings in Europe. They possess both originality and boldness of treatment, combined with grandeur and dignity, which is so much wanting in most English buildings of the period.

The eccentricities and absurdities of the Continental architecture produced by the French Revolution, however, soon found their way into this country, and we even surpassed our neighbours in bad taste, incongruity, and vulgarity. The Pavilion at

Brighton, Marylebone Church, Trinity Church, Marylebone, the "Extinguisher" Church in Langham-place, St. Philip's, Regent-street, where the architect has copied the Coragic monument of Lysicrates and converted it into a church tower—could a more rampant piece of absurdity be imagined than making the stand of a Greek theatrical tripod into a bell tower and sticking it on a Christian church!; the National Gallery with its pepperboxes, the Duke of York's Column, the Military Chapel, the Pagoda at Kew Gardens, the stucco palaces of Belgravia and Tiburnia, form an architectural "chamber of horrors" which is perfectly unique. It is but just, however, to own that Decimus Burton's beautiful colonnade, adorned with Flaxman's exquisite friezes, at Hyde Park Corner, is a great contrast to this assemblage of hideousness; it is the best example of pure Greek architecture in England, and, as Mr. Loftie\* points out, has been so much overlooked that it has not even had a name bestowed upon it, whereas the poor and feeble Marble Arch, which formerly stood in front of Buckingham Palace (a far better site for it, by the way), is one of the "lions of London."

Such was the condition of our architecture when two men of most opposite views, but who were destined to be united in a very remarkable manner, attempted to bring some kind of order out of this chaotic mass of confusion; they were Barry and Pugin. Barry had studied his art both from ancient Classical and the best types of the Renaissance; he had travelled much, and made careful notes of all that he saw. Although his tastes rather favoured Classical, he nevertheless thoroughly appreciated and understood Gothic; he was moreover a thoroughly practical and scientific architect, an excellent man of business, and possessed of great common sense. Pugin was in many respects the very opposite of all this; he was a violent enthusiast who believed in nothing but Gothic architecture, and a thorough Mediævalist, but a true artist and a powerful and sarcastic writer. His "Contrasts," in which he depicted in an admirable series of etchings, accompanied with very telling and trenchant sarcasm, the absurdities of the architecture of the time contrasted with the beauties of Mediæval buildings, roused a perfect storm in the art world. His idea was that everything had gone wrong in architecture from the moment that the old Gothic style was abandoned and men began to copy Classical, or, as he called them, "Pagan works," that the only possible cure for the evils which had crept into the art was boldly to return to Mediæval architecture and utterly ignore everything which had been done since the fifteenth century.

Now, Barry's idea was rather to correct by careful study of ancient examples the errors and absurdities which had crept into both the Classic and the Gothic works of the day, and to attempt certain modifications so as to render them more applicable to our modern requirements. Pugin's earlier works, mostly Roman Catholic churches, were certainly an immense advance upon any Gothic work which had been seen for centuries, and in his Roman Catholic cathedral of St. Chad, at Birmingham, an adaptation of one of the great brick churches of Northern Germany, there is great dignity united to spaciousness, loftiness, and simplicity, which promised much for the Gothic revival.

The rebuilding of the Houses of Parliament, which occurred at about the same time, and of which Barry was the architect, brought Barry and Pugin into connection, for Barry, determining to erect his building in the Gothic style, sought Pugin's assistance with the details and woodwork; though so opposite in

\* These towers are sometimes incorrectly ascribed to Wren.

\* Loftie's "History of London."

character, the two men appear not only to have been connected in art, but to have formed a friendship which lasted until the melancholy circumstances occurred which necessitated poor Pugin's giving up business, and which only ceased with his death. Unfortunately, neither of these men lived to see the completion of the Houses of Parliament; even at the present time the land front of the great edifice has been only partly carried out, and by a recent decision of Parliament is now altogether abandoned; in fact, Barry's design for the completion of his great work has been simply ignored! Amongst Barry's finest classical works the Reform Club is one of the best examples.

To return for a moment to the Gothic revival, it has certainly taught much, and has been of almost inestimable value in imparting the real and proper treatment of ornamentation; it has secured much enthusiasm for architecture, and has led to a most exhaustive study of archæology, and to a thorough appreciation of all Mediæval buildings; it has raised up learned and accomplished architects, and artists, and skilled workmen in every branch; it has taught men to avoid many of the mistakes and absurdities of the seventeenth and eighteenth centuries, and to copy with great fidelity every feature and accessory of Mediæval art; but, alas! there is one thing which it has not done—it has neither developed nor advanced; it is still where it was when Pugin erected St. Chad's, Birmingham; the test is now what it was then, "Does the building look like an old one?" The more thoroughly it looks like a thirteenth, fourteenth, or fifteenth century work, the better; the less it resembles them, so much the worse. Now, although this may have been a satisfactory result to start with, yet after fifty years the revival ought to have produced something more than this; we have a right to expect some progress in the art. Look, for instance, at the progress made in architecture between the years 1150 and 1200, when we find the heavy Norman developed into the most graceful Early Pointed, with all its marvellous accessories. And yet, with the means at our hands which men in that early time did not possess—with easy means of travelling, wonderful mechanical contrivances which they never dreamt of, books, photographs, learned societies, architects who are probably superior in intellectual acquirements to those of the Middle Ages (no Mediæval architect, for instance, could possibly have possessed anything like the wide range of knowledge of art possessed by the late Sir Gilbert Scott or Mr. Street), with workmen who are far more intelligent, with tools in their hands to which those of the thirteenth century were as the flint-headed arrows compared to the modern rifle, with the experience of twenty centuries to guide us—yet we have made no advance in half a century! It may also be doubted whether the revived Classic of our day has developed anything that is really original. Its latest phase, the revival of what is called the "Queen Anne style," is simply a reproduction of the ornamental detail of a very debased period of the Renaissance. It must, however, in fairness be acknowledged that this style lends itself well to our present wants; though it possesses no very high artistic merits, it is pleasing, cheerful, and not difficult to carry out; whether it will lead to any architectural advance it is impossible to say. And this opens the general question, Is there any possibility of our ever having a new style of architecture? or are we to go on for ever copying Mediæval buildings for our churches, Classical for our public buildings, and debased Renaissance for our houses; and is there any hope of our having an architecture of our own time? Are our architects responsible for this state of

things? or is public taste to be blamed, or what?

Well, we must say at once that at present anything like originality in architecture seems an impossibility, because all the existing styles of architecture have been worked out to their legitimate conclusion, and have been perfected under circumstances and surroundings which were, as we have shown, conducive to originality and development in the art of building. Experience has shown that we cannot do original work, and our best architects have acknowledged this, and are content to copy and adapt ancient designs and details to our present wants. Men who attempt originality only create confusion, and their works are an ill-assorted jumble of discordant styles. Architects are certainly not to blame for the present unsatisfactory condition of their art; they are, however, very much to be pitied, because in former times they had only to study the architecture of their own day in order to qualify themselves for the profession, but now the unfortunate man has to be well versed in the architecture of every age and of nearly every country of the world. One client wants him to build a pure Greek church, a second has a fancy for a Chinese ice-house, a third has a fancy for an Egyptian conservatory, a fourth for a thirteenth-century engine-house, so that he has not only to know the architecture of every age and every country, but must be able to apply each style to some particular object which was unknown during the time in which it prevailed. What, then, can be done to improve the present unsatisfactory condition of architecture? On the one hand, let us consider what it is that we have at our command, and, on the other, what it is that we are unable to obtain. Well, we have at our command enormous engineering skill; we can obtain splendid workmanship; our mechanical appliances are unlimited; we have most sumptuous materials; Scotland offers us her granite; Italy and Ireland superb marbles; stone, brick, and iron are to be obtained all over England; majolica, glass, mosaic, teak, oak, mahogany, and foreign wood of every description are easily obtainable; but what we cannot get is originality in our details, and that air of poetry and romance which forms the great charm of ancient Gothic buildings. These latter must, of necessity, be out of our reach as long as we live in what is called a practical age.

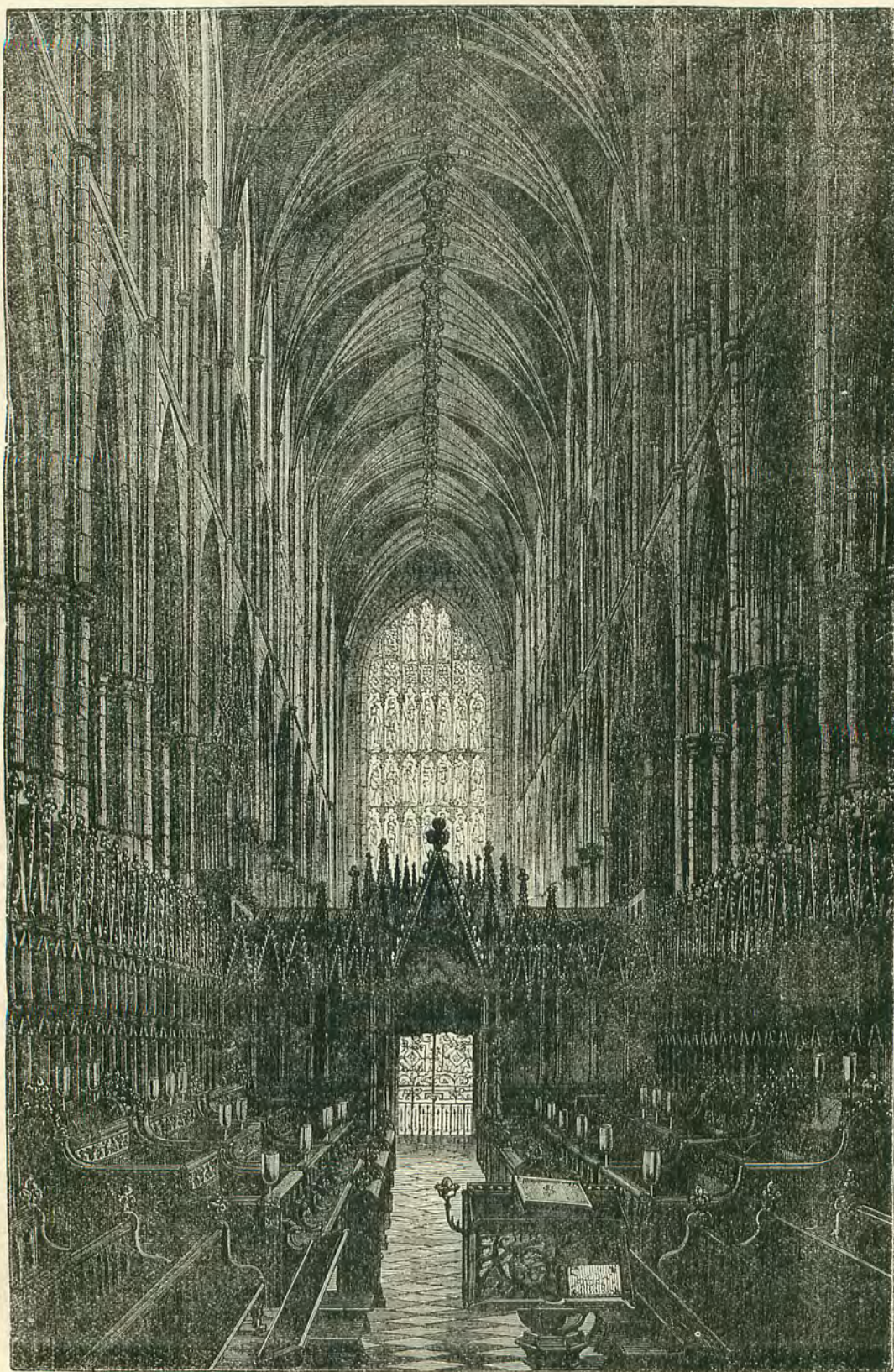
One thing which at the present day greatly hinders the artistic development of architecture is the fact that the architectural profession partakes so very much more of the character of a business than of that of an art. Of course, many of our living architects are thorough artists; but it would be absurd to call some members of the profession artists at all, as there is no more art about their proceedings than of those of a stock-jobber or a wholesale grocer. There are men in the profession who spend the whole of their time running about picking up work, hunting up directors of companies, dancing attendance upon committees, cajoling vestries, sneaking about, and trying by backstair interest to influence the decision of competitions, offering to undertake work at a cheaper rate than the standard set up by the profession. Some of these men could scarcely tell you the difference between a Gothic and a Classical building. Their whole time is occupied in getting the work, and then they pay some clerk or assistant "to get out the drawings."

Much has been written, and with great justice, against jerry builders, for they richly deserve all that has been said against them; but it must not be forgotten that there are also "jerry architects," who deserve just as much to be exposed. Of course, it is impossible to expect any high artistic progress in a profession carried out as we have described.

Unfortunately, the public are often deluded into the supposition that because these men know nothing about their art they are excellent practical architects, and will do good common-sense work. Now, this is a complete delusion, and a little consideration will show that a man who thoroughly understands his art will be a far better practical architect than the one who does not, because, in the first place, he will have given more time and attention to the study of existing works, and, in the second place, he will know how to apply ornamentation in the most effective manner, and where to avoid or spare detail.

Unfortunately, the delusion that an absence of artistic knowledge argues high business qualifications is such a firmly-rooted belief in the minds of many Englishmen that it is almost throwing away words to attempt to show the outrageous absurdity of the idea; but until the ridiculous and mischievous practice of employing men to erect buildings simply because they know nothing whatever about the art side of their profession is done away with, it is useless to look for any progress in architecture. If you employ an architect who is essentially not an artist to carry out a work, that work is certain to be inartistic and hideous, whereas it is just as likely to be inconvenient, impractical, and uncomfortable in the bargain, and it may be laid down as a rule that the most hideous buildings are also the most inconvenient.

The writer was once staying with a gentleman in the country who had built a very costly and hideous house. This gentleman excused its ugliness on the ground that he had chosen an architect who knew nothing about art, but who was "a thorough practical architect who knew how to build a comfortable and convenient house." Now, will it be believed that, although the house in question was a very large one, the kitchens were placed in such a position that the dinner had to be carried across the hall to reach the dining-room, and that no servants' staircase had been provided? Yet, simply because the house was abominably ugly and the architect utterly ignorant of art, the owner of this mansion was perfectly satisfied and convinced that he had a most convenient and practical house! In fact, it has almost become a kind of principle that that which is extremely ugly must be exceedingly practical; just as some women would try to persuade us that pretty women are never intelligent, and plain women are always possessed of great intellect and heroic virtues. This theory also leads people to imagine that they may get on better with a builder alone, and may dispense altogether with the services of an architect. This has resulted in a most deplorable state of things; because, however disappointing buildings may be which are erected under the superintendence of an architect, yet they are pretty well certain to be better than anything erected by a builder alone; and if the efforts of our architects are not always successful, what is to be said of the operations of the speculating builder? We know nothing more saddening, nothing which damps all hope of future architecture, nothing which is more thoroughly revolting to a man of taste, than a visit to the places in the neighbourhood of London where the lovely country lanes and delightful fields are being cut up and built over by rows of the most detestable villas, hideous terraces, and other abominations of the "Jerry builder." We see the same sickening design for some semi-detached villa repeated over and over again till the thing which was bad enough even when built once becomes absolutely loathsome. Since the world began, nothing so utterly detestable can be conceived as the modern "Jerry-built" semi-detached villa. It has reached the very acme of vulgarity. One cannot admire the plain houses erected



THE CHOIR OF WESTMINSTER ABBEY.



THE SISTINE CHAPEL.

half a century back; neither Marylebone-road nor Maida-hill can be looked upon as pleasing examples of domestic architecture, yet they are free from the outrageous vulgarity and disgusting pretentiousness which is rampant in the rows of semi-detached villas which are gradually invading the beautiful suburban roads of London. When we enter one of these new neighbourhoods, and look at the repulsiveness of its architecture, we cannot help recalling to our minds the words which Dante saw over the entrance to another place:—

“Ye who enter here must leave all hope behind.”

If there is ever to be a new style of architecture worth anything, the very existence of the “Jerry builder” must be rendered an impossibility, because as long as he is allowed his own sweet will our houses will be vile both in design and execution. If there is to be a new style, and one which will express the feelings and sentiments of our own day, it will probably arise from a judicious adaptation of the features of some past style which are best suited to our own time; not by copying the most splendid and elaborate works of antiquity, but those which can be most readily reproduced by our workmen.

Our buildings should be designed in a style which can express itself in a few simple features, leaving large wall spaces for decorative painting, mosaic, or flat ornamentation of some kind or another. We must not attempt to aim at the exquisite mystery and poetry of old Gothic work, for we shall never again see a building erected like Westminster or Amiens, and imitations of them, however well designed and carried out, must be disappointing because of the entire absence of that romance and poetry which surrounds old buildings.

Some of our readers may be inclined to imagine that age will lend these charms to our buildings, but there is not the slightest chance of this, and there can be little doubt that our old Gothic works, whether they were cathedrals, castles, or dwelling houses, were as poetic and beautiful when they came fresh from the hand of their builders as they are now, whereas our buildings are unpoetical and unromantic from the first moment of their existence, and will remain so to the last; and although we may attempt to throw a glamour of romance over them by imitating the works of former ages, “the lie will out,” and the truth be detected that they are the works of a thoroughly unromantic age, of a practical age, a common-sense age, a plodding, money-getting, commercial age, but one devoid of poetry and romance. What the architecture of the future may be is concealed from us, and we cannot lift the veil of futurity, though if we look at the two typical buildings which we illustrate—Westminster Abbey and the Sistine Chapel—there can be little doubt that it will partake more of the latter than of the former, though whether we shall ever see such decorative painting again as adorns the walls of the Sistine is indeed a question.

And now perhaps our girls may be inclined to say, “Is it possible that we can do anything to help the future of architecture?” Well, we think they can do much. In the first place, the very possibility of architecture ever having a future at all as an art must depend upon people taking an intelligent interest in it. As long as people do not care whether their buildings are beautiful or ugly; as long as people are ignorant of what constitutes good, and what constitutes bad, architecture; as long as the whole art is treated with indifference and contempt, there is no chance of any improvement. During the Middle Ages, when a church or a cathedral was to be erected, every soul in the place,

whether it was city or village, took an interest in the work; and until we can revive a love for architecture, and an intelligent enjoyment of its beauties amongst the people, we must be content to see the art lingering and decaying. We think there is also another way in which our girls may be of considerable help in the future. We have shown that, owing to circumstances over which our architects have no control, the buildings which we are now erecting cannot possibly be of any interest or value in the future; but this just makes every atom of genuine old work more precious. As time goes on, decay, accidents, rebuilding, and restoration will, sooner or later, most certainly in the end deprive our ancient buildings of every atom of genuine ancient work which they possess. Now, what we suggest to our girls to do is this. Let them take their note-books and their sketch-books, if they can sketch; let them carefully sketch and note down every genuinely ancient feature in some old church or building in their neighbourhood. Careful records of this kind have over and over again proved to be of great value; and although at the present moment such notes may not be worthy of publication, they may be of the highest possible value when the objects which they describe have ceased to exist. Even should they answer no other purpose, they would greatly assist in instilling into the minds of their writers that intelligent interest in architecture which must be spread amongst the public if the art is ever again to assume its former dignity and importance.

It may not be out of the way here to give our girls a hint or two as to how they may describe easily an old church so as to render their description intelligible to those who are acquainted with architectural matters. They should proceed thus—1. State the name of the church. 2. Its dedication. 3. Its situation. 4. Describe the plan of the buildings. 5. Mention the style of architecture to which each portion belongs. 6. Any remarkable peculiarity of the architecture. 7. Any valuable or interesting detail. 8. Any ancient furniture which the church may contain; stained glass, if there be any. 9. The monuments. 10. Church plate, bells, register books. We give an example of how this should be done:—

The church of—, dedicated to St. John, is situated in a beautiful valley about a quarter of a mile from the village, and on the road to—. It consists of a nave and aisles; a chancel, with one side chapel to the south and a single transept to the north; a tower at the west end, porches both to the north and south, and an original vestry to the north of the chancel. The nave is Perpendicular, and has a lofty and very noble clerestory; it is divided from its aisles, which are decorated by five rather obtusely-pointed arches, resting upon richly-moulded piers with small moulded capitals. Each bay of the clerestory contains two three-light windows; the roof, rather flat in pitch, is of oak, and has principals adorned with pierced tracery, showing remains of ancient coloured decoration. The windows of the aisles are of the Curvilinear Decorated period; they are of three lights, and the traceries elegant and richly moulded. The chancel is Early English. The east window is a three-light composition of lancets, finely shafted and moulded, with the “dog-tooth” ornament introduced. The chancel and chapel are vaulted in stone, with well-accentuated ribs and carved bosses. Two very acutely-pointed arches, resting upon a clustered column and responds, open into the side chapel, which is also Early English, with a two-light window to the east and two single lancets at the side. The transept, which is Late Perpendicular, opens into the north aisle of the nave by a four-centred arch, and has a very rich, flat ceiling. The tower and spire are Deco-

rated; the latter is constructed of stone, has four pinnacles at the base, and possesses two rows of gabled windows arranged upon alternate sides of the octagon of the spire; the original cross and vane still exist. The belfry windows are arranged in pairs on each side of the tower. The west window is of five lights, rich Late Decorated, and the western doorway well moulded. The door itself is modern; the porches are both Perpendicular; that to the south is adorned externally with panelling, and above the outer doorway are five large niches, which appear formerly to have contained statues. The parvise (or room over the porch) is very perfect, and contains its ancient fireplace and chimney. The north porch is somewhat similar to the south, but plainer.

There is a fine rood screen, with loft and parclose screens to the chancel chapel and north transept. They are all Perpendicular, and richly painted with figures of apostles and prophets. The stairs to the rood-loft still exist, and are contained in an octagonal turret to the south of the chancel arch. There is a plain Early English sedilia and piscina in the chancel, and a somewhat richer example of the latter feature in the south chapel. There is a little Late Perpendicular stained glass in the window of the transept, consisting of three figures under canopies, representing St. Peter, St. James, and St. John, with their appropriate emblems. The choir stalls are good Perpendicular work, and the benches of the nave have “poppy heads;” the pulpit dates from the time of James I., and the communion table from that of Queen Anne, and there is a squire’s pew of the time of Charles II.

The font which stands in the centre of the nave, near the west end, is an Early Norman, cubical in form, supported upon four short columns; it is of dark grey marble, carved with intersecting patterns in low relief, and is the only existing feature of an earlier church.

There are several interesting monuments in the church. In the north wall of the chancel is the founder’s tomb, the effigy of a knight in chain armour, under an Early English arch. The only portion of the inscription visible are the words, “Ci Gist Pierre de —.”

There is a large and costly monument in the chancel, constructed of marble, to the memory of Sir Timothy Ouldethorpe, who lived in the reigns of Elizabeth, James I., and Charles I. The inscription and epitaph are as follows:—

“Here Lyeth the Bodye of that Most Honourable, Virtuuous, and Learned Gent, Sir Timothy Ouldethorpe, Knt., Sometime Groom of ye Stole unto his most Gracious Majestie Kyng James of Blessed Memory.

The said Sir Timothy gave unto this Parish 6 acres of lande for ye benefitt of ye pore situated in ye hamlet of Dandeyes, and called ‘Timsdandeyes.’ He departed this lyfe on the tenth daye of November, in ye yeare of Our Lorde 1632, and in ye 73rd year of hys age.

This Monument is erected to his memorie by his sorrowing Widow, Dame Judith Ouldethorpe.”

“Sagittæ Potentis Acutæ cum Carbonibus Desolatoriis.”

“O Death, thine arrows may no man wi-hstande,

Thou strik’st both riche and poore with certaine hande!

The Virtuuous and the Vile must both obey thy call;

None may escape thy doom, Thou overcomest a.l.

A gen’rous husband, virtuous father, kinde, Is ta’en away, and those he leaves behinde

Must mourne his loss, until the summonse come,

With call to join him in th’ Eternal home.”

The church plate consists of a chalice and paten of silver, dating from the time of Charles II., and two flagons dated 1715, and a large alms dish of Elizabeth's time. The bells are five in number. The oldest is dated, and inscribed—

"Gulilemus Dacre, fecit me. in Spe, Misericordiae, A.D. MCCCCXL.

"Thoma Vocatus sum Defunctos ploro."

The other four were recast in 1789. Each is inscribed as follows:—

"Thomas Abel made this bell,  
Let all folks say he did it well.  
1789."

The register books are kept in an iron safe in the vestry—as all regular books ought to be. They date back from the year 1628.

This is, of course, a mere skeleton sketch to show our girls the order in which the various objects of interest in an ancient church may be mentioned. The detail may be filled in to any amount.

In addition to the knowledge of architecture which our girls will obtain by writing careful notes upon ancient churches and other buildings, it is extraordinary the knowledge which they will gain of history and topography. They will be collecting the materials for

future county histories, a class of works which will have soon to be entirely re-written, and in a much more careful manner than has hitherto been done. Many of our existing county histories are so careless and so superficial, that they are simply worthless as aids to the study of history.

In conclusion, we feel convinced that architecture studied in the way we suggest would afford our girls a very agreeable variety to their other occupations, and would give an object of interest to their walks and pleasure excursions, affording them sound and solid information of a most reliable kind, and much innocent and improving enjoyment.

## ETHEL RIVERS' AMBITION.

### A STORY WITH A WARNING.

#### CHAPTER III.

AFTER the disappointment of a hope to which one has long looked forward daily, life, however varied, seems sadly flat and unprofitable, and one turns eagerly to fresh scenes where the past may be forgotten and the mind braced for renewed efforts, which desires frustrated have weakened.

Thus it was with Mr. Mildmay. For some time past he had been looking forward to a trip to America, partly as a pleasure tour and partly to collect materials for a Transatlantic book he was contemplating, and he wisely thought this a suitable time for his journey.

Though Ethel Rivers had not thought it worth while to verify the "gutter patois" which she had introduced into her story, the author of some standing would not have written a line without thoroughly proving the accuracy of what he wrote. And it will be found to be so in other matters; the amateur pianist does not pay the attention to details of fingering or small shades of expression as the professional; the amateur artist does not think it a great matter to discriminate between the tints of green in a leaf; yet success depends upon trifles of the kind in no slight degree.

But we are wandering from Drummond's journey. Nowadays the trip across the "herring pond" is a matter of small note; rapid steamers have made it almost as prosaic an affair as crossing from Dover to Calais. The brisk sea breeze, however, and the congenial employment of the study of human nature necessary for his purpose, soon afforded him the relaxation of which he felt himself in need. And though he by no means forgot Ethel Rivers, still the novelty of his surroundings, by turning his thoughts into other channels, braced him to endure whatever the future might have in store.

His American tour lasted over a year, and on reaching his native shores once more his first thoughts flew to the cordial invitation he had received from Ethel's aunt to pay her a visit at his earliest convenience. He was debating with himself the advisability of a course he so much desired when a paragraph in the daily paper lying before him caught his eye. Under the heading of Book Notices was the review of a new novel "by Ethel Mary Rivers." The criticism on it was sharp and full of scathing sarcasms. Drummond read it carefully through, and his cheek burned with as much shame as though the work had been his own, for it was unequivocally condemned. Not only did it appear a raw production, but its moral tone was, alas! not of the first order, the "flippancy" being one of the gravest faults.

"Poor girl! How she must be changed," thought Drummond, and then he was ready to reproach himself with having allowed the

daughter of his old friend to drift into so unpleasant a position. This was the fruit of her ambition. The matter, however, decided him on the subject of his visit, and only waiting to satisfy himself that the review was a just one, he took an early train to Boxley.

Mrs. Benton's house was small and pretty, and the owner received him with much effusion. He hesitated to open the real object of his visit, until Ethel should have assured him that her aunt, whom he knew to be of no literary turn of mind, was privy to the fact of her having published at all.

In reply to his inquiries after Ethel's health, Mrs. Benton rejoined that she was pretty well. "But in my opinion so much writing is bad for anyone. She's at it not only by day, but at night too, I do believe," said the old lady. "It is bad for her eyes; now, don't you think so?"

Mr. Mildmay assented.

"Then I hope you will tell Ethel so. Perhaps she will attend to what you say; she does not care one bit for any remark of mine." And the aunt shook her head solemnly. "But I cannot imagine what she is doing, that she does not come in. Writing, as usual, I suppose!" And Mrs. Benton left the room, in search of her niece.

The moment Ethel entered the drawing-room Drummond noticed the change in her. Not only was she thinner, but there was a flush upon her cheek, telling of undue excitement, and a restless light in her dark eyes very different from the bright, girlish gleam he remembered in them.

"I suppose you are come to scold me," she said, lightly, after the first greetings had passed between them.

"I do not think you can need that," replied Drummond, gravely. "You seem to me to have had enough blame."

Ethel laughed a hard, scornful laugh.

"Oh, those reviewers! They always 'cut up' a woman's work," she said, bitterly.

"Not unless deservedly; at least, not as a rule," he said, still gravely.

"Have you read it?" she demanded, after a pause.

"Certainly."

"And your opinion is still 'that young girls, having seen nothing but the sunny side of life,' cannot write, etc., etc.," she put in, sarcastically repeating his words to her on a previous occasion.

Mr. Mildmay felt the sneer in her remark, but he merely said, quietly enough—

"I was more vexed and ashamed than I can tell you."

Ethel had had many unpleasant observations to endure of late, but this, the honest judgment of her best friend, went to her heart as no previous one had. Tears rose to her

eyes, but she bit her lips, gulped down her rising sobs, and replied, coolly—

"Thanks for your good opinion, Mr. Critic!"

Drummond, seeing (as he thought) that he had made no impression upon her, accordingly changed the subject, telling her of his travels, his new book, and little matters connected with the literary world, sure to be interesting to anyone who had been, like Ethel, so much mixed up with it. Not until after they had dined did Mr. Mildmay remember Mrs. Benton's request. He had noticed that Ethel repeatedly pressed her hand over her eyes as though they ached, and that she closed them whenever she fancied herself unobserved; the eyes looked weary and heavy, too, as if she had been for weeks deprived of her proper rest. He felt it was indeed time to offer a warning, so, as he took leave of her, he said, seriously—

"And let me beg of you not to overstrain your sight; you will suffer if you do, whether you continue an authoress or not."

For a moment Ethel looked alarmed, then she shook the feeling off, and replied—

"Oh, my sight is as strong as a hawk's!"

"Well, will you promise me something else, then?" he asked, earnestly.

She signed to him to continue.

"Let me see your next manuscript, before you think of disposing of it."

Ethel gave him her hand in token of assent.

"I will," she said; "for I am still resolved to succeed; and I depend upon you to help me, for 'auld lang syne.'"

If determination ensures success, Ethel had already attained it; and as Drummond travelled homewards that night he was inclined to think that such resolution must, in the end, ensure success, and to imagine that she had not yet discovered her special forte. He had told himself that his short love story was over and done with, but he might have known that the manner in which Ethel's doings affected himself was indicative of something more than mere friendly interest. But while he admired the undaunted determination and bravery which she showed, he regretted deeply the cynicism and bitterness which contrasted so sadly with her former bright frankness. Part of it, he knew, might be due to disappointment, and she was probably feeling sorely the loss of her father's countenance and help in her ambition. "And it may have been partly assumed out of bravado," he thought, hopefully.

The only cause he overlooked, in his desire to make every allowance for the girl he loved, was a physical one; and yet this lay at the bottom of nearly (if not quite) all the change he so bewailed.

(To be concluded.)