RENASCENCE.

ART once an outcast in a wintry land,
Far from the sun-built house where she was born,
Did wander desolate, and laughed to scorn
By eyeless men who counted gold like sand;
Nor any soul her speech would understand—
A friendless stranger in the city lorn
Toil-grimed and blackened with the smoke upborne
Of human sacrifice of brain and hand.

Then Art, aweary, laid her down and slept
Beneath an ancient gate, and, dreaming, smiled,
For Hope, like Spring, came full of tidings good:
And Labour, huge and free, and Brotherhood
Led her between them like a little child—
In time new born, to glad new life that leapt.

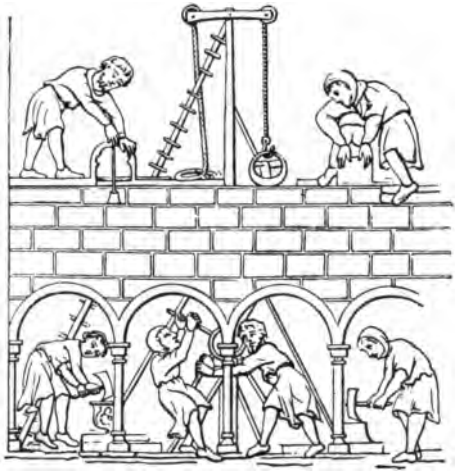
WALTER CRANE.

St. Machar Cathedral, Aberdeen.

THE ART OF MASONRY IN BRITAIN

BY

WILLIAM DIACK.



BUILDERS AT WORK.
(From Thirteenth Century M.S)

WITH NUMEROUS ILLUSTRATIONS.

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PREFACE.

My object in the following pages has been to describe briefly the origin and development of the art and craft of masonry in Britain, especially during the earlier years of its history. Volumes innumerable dealing with the history of architecture (as distinct from masonry) are in circulation. Especially is this the case with the period of the Renaissance, including the era covered by the famous works of Inigo Jones, Christopher Wren, and their contemporaries and successors. Precisely for that reason this remarkable period in the history of British architecture has, in this volume, been dealt with more briefly than its importance would otherwise warrant. My purpose has rather been to deal with the social life and work of British masons during that period when architecture had not yet developed into a distinct calling—when the master masons of the guild designed as well as superintended the work of their fellow-craftsmen. Moreover, I have sought to relate the history of masonry from the point of view of the artificer and craftsman rather than from the more theoretic standpoint of the architect or designer.

We, the heirs of the man who built the pyramids and the Parthenon, can boast of a proud inheritance indeed. Ages have come and gone, but the marks of the mason's chisel there are not obliterated, and the skilful carving of the Egyptian granite-cutters have scarcely yet been equalled in modern days. In our own land, too, we have many famous fore-runners—Benedict Biscop, who taught the men of Britain the forgotten art of building; William of Sens, a famous master builder and the first master mason of our land; James Carlyle, that worthy father whom the sage of Chelsea so revered and cherished; Hugh Miller, who revealed to us the "footprints of the Creator" stamped

indelibly on every rock and every stone; Allan Cunningham, who sang so sweetly the songs of lowly Scotland—these, and a host of unknown toilers, have shed additional lustre around the craft of masonry. It is with these masons of a by-gone age and with their manner of life and work that this volume mainly deals.

I have to acknowledge my indebtedness to Mr. G. L. Smith, Aberdeen, for some of the special photographs from which this book is illustrated, and also to Mr. George Allen, the publisher of Mr. Ruskin's works, and to Mr. Reginald Blomfield for permission to reproduce one or two of the illustrations contained in this volume.

W. D.

CONTENTS.

CONTENTS.

CHAPTER VII.

CHAPTER VIII.

CHAPTER IX.

CHAPTER X.

CHAPTER XI.

CHAPTER XII.

The Art of Masonry in Britain.

"Fragments of history saved from the wreck of time."—BACON.

Chapter I.—The Pre-Norman Era.

FEW trades or industries can boast of a history so romantic as that of masonry. When the historian of our race is silent, and even the legends of the past are forgotten, the handiwork of the operative mason sheds no uncertain light on the past conditions of national life. There is little doubt, however, that in Britain the art of masonry was wholly unknown before the first Roman invasion, for interesting though the mysterious groups of Druidical circles scattered throughout the country from Stennis in the Orkneys to Stonehenge in Wiltshire may be, those Druid temples can scarcely be described as specimens of ancient British masonry. Neither can we so dignify the underground houses of Aberdeenshire and Cornwall, for these are merely artificial caves covered over with massive blocks of stone, in which the primitive inhabitants of Britain were wont to shelter themselves during the bitter northern winters or during a time of foreign invasion. "What the Britons call a town," says Cæsar, "is a tract of wooded country surrounded by a mound and ditch for the protection of themselves and their cattle." Even the renowned Caractacus, who was carried prisoner to Rome about 50 A.D.—a hundred years after the first Roman invasion—is said to have expressed great surprise that the Romans, "who had such magnificent palaces of their own, should envy the wretched cabins of the British." But soon a rapid change came over early British architecture. Ten years after the first Roman colony had been founded (about 61 A.D.), the famous revolt under "Britain's warrior Queen" Boadicea took place. At that time the little colony at Camulodunum was a well-built town, adorned with theatres,

statues and temples. The stone temple of Claudius was large enough to hold the entire Roman garrison, and strong enough to withstand for two whole days the entire British army.

But the Romans by no means contented themselves with building theatres and forts for their own amusement and safety. Under Agricola they assiduously instructed the warlike islanders in the peaceful arts of building and road-making. The early Britons soon proved themselves worthy pupils of such masters. For the next 250 years architecture and masonry prospered amazingly throughout the land. The finer features of Italian architecture soon became familiar in the neighbourhood of every Roman colony. Britain became famous throughout Europe for the skill and dexterity of its masons, for when the Emperor Constantius, father of Constantine the Great, rebuilt the city of Autun in 296, the work was executed almost entirely by masons from Britain, "which," says the eminent historian Eumenius, "very much abounded with the best artificers." Like the Roman artisans, from whom they learnt their craft, those early British masons were staunch trade unionists. The earliest memorial of the Romans ever discovered in Britain gives ample proof of this. In the year 1725 there was found near Chichester fragments of a carved stone which, when carefully pieced together, was found to contain a written inscription in which the "College of Masons" dedicated a temple to Minerva and Neptune. This "College of Masons" was the trades guild of the Roman "cementarios," which, in addition to advancing the interest of its members industrially, organised systematic courses of lectures on mathematics and technical subjects. The interesting relic which proves the British masons to have been members of this famous trades union is now, we believe, preserved at Goodwood (near Chichester), the seat of the Duke of Richmond.

But the era of Roman architecture in Britain was destined to vanish away. With the departure of the Roman legions fierce and almost interminable wars between Saxon, Briton, Pict and Scot broke out. Flourishing towns and villages were laid in ruins. Even the massive Roman wall, with its numerous towers and castles, stretching from sea to sea, sank into decay, and the cunning artificers who might have repaired the havoc of many wars had wandered towards the east. Then, as now, the British mason seems to have believed that "'twas to give room for wandering in it, that the world was made so wide,"

and when the building of Constantinople commenced, quite a little army of British architects and masons emigrated to the rising Byzantium Empire. And so it came to pass that before the fourth century had mid-way run its course the noble buildings of the Roman era were but blackened ruins in a land over-run by fire and sword, and the Britons were again dwelling in forests, dens and caves as did their savage ancestors. Of the Romans it might at least be said that they destroyed but to rebuild, but the Saxon wars had no such redeeming features. Says a writer of that period, an eye-witness of the scenes of ruin and desolation which he describes, "A fire was kindled by the sacrilegious hands of the Saxons, which spread from city to city, and never ceased until it burnt up the whole surface of the island from sea to sea with its flaming tongue. The walls of all the colonies were beat down with battering rams, and their inhabitants slain with the point of the sword. Nothing was to be seen in the streets but fragments of ruined towers, temples and walls, fallen from their lofty seats, besprinkled with blood, and mixed with mangled carcases."

And thus for nearly three centuries architecture and masonry were forgotten arts in Britain.

Chapter II.—Revival of Masonry in Britain.

It was not until the end of the seventh century that masonry was restored in Britain. The honour of reviving this honourable art belongs to two famous clergymen, who, on their many visits to Italy, had been deeply impressed with the beauty and magnificence of the lofty cathedrals of Rome compared with the humble wooden edifices which they worshipped in at home. These were Benedict Biscop, founder of the Abbey at Wearmouth, and the noble-hearted Wilfrid, Bishop of York and (afterwards) of Hexham. This energetic Bishop erected several stone cathedrals—at Hexham, York, and Ripon, the former being the finest stone church ever built in Britain during all the pre-Norman era. His biographer thus describes it: "How large and strong were the subterraneous buildings constructed of the finest polished stones! How magnificent the superstructure with its lofty roof supported by many pillars, its long and high walls, its sublime towers and winding stairs! In one word there is no church on this side the Alps so great and beautiful." But his life-long friend and companion, Benedict Biscop, was by no means less active. Time after time he journeyed to the Continent for the purpose of bringing to Britain masons ("cementarios") and other artificers, to build his church of stone and teach anew to the men of Britain the art and craft of masonry. At this time there were no stonemasons in Britain from the "storm-swept Orcades" in the north to "Cornvallis" in the distant south. Whether those two reverend builders themselves ever learned the art of stonecutting and thereafter imparted it to their countrymen history deponeth not, but the supposition is by no means unreasonable. Under the laws of Edgar every clergyman had to become proficient in one branch of manual labour. Walter de Colchester, the studious monk of St. Albans, was an eminent sculptor, and Easterwin, Abbot of Wearmouth, taught his monks to forge various articles of husbandry, he himself wielding the hammer on the anvil week after week and month after month. Benedict Biscop, at any rate, took an active part in supervising the building of Wearmouth

Abbey, for the Venerable Bede declares that "he urged these workmen to labour so hard that mass was celebrated in it about a year after it was founded."[1] Prior to the undertakings of Benedict Biscop, Paulinus erected a stone church at Lincoln and another at York. It is doubtful, however, if they were stone churches in the modern sense of the word, for in a little more than half a century both those edifices were in ruins. It is not improbable that they were reared as was the monastery built by Cuthbert about the same period, the walls of which were made, not of cut stones, but of rough, unhewn blocks laid on alternate layers of turf. This would account for their speedy decay.

It was nearly thirty years after the building of Wearmouth Abbey before the art of masonry gained a footing in Scotland. About the year 710 Nathan, King of the Picts, sent ambassadors to Ceolfred, Abbot of Wearmouth, earnestly desiring him to send masons to build a church of stone in his kingdom after the Roman style. Bede, who was then residing at the abbey, tells us that Abbot Ceolfred "granted this pious request and sent masons according to his desire." This, however, was not the first stone church built in Scotland. About the middle of the fourth century Bishop Ninian, who converted the Galloway Scots to Christianity, "built a church of stone in a way unusual among the Britons." This church was dedicated to St. Tours, from whom he obtained masons to build in the Roman fashion. Throughout the neighbourhood this church, from its unique appearance, was known as "The White House."

Despite the praises of contemporary writers, the finest of the Anglo-Saxon churches seem to have been somewhat rough and clumsy buildings—low roofed, with walls abnormally thick, and lighted only by two or three long narrow windows with semi-circular arches at the top. The diagonal or zig-zag moulding is one of the distinguishing traits of Saxon architecture, and in its use our earlier architects seem to have inherited the chief weakness of Roman art, that of making ornamentation an artificial engraftment on the main body of the building rather than an essential part of the structure in which every pillar, shaft, capital and moulding gives emphasis and expression to the whole.

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1 Benedict Biscop also introduced the art of glass-making into Britain. Through his agents in France he induced several glass-makers to visit Britain and glaze the windows of his church. He also taught the English to make glass for windows, lamps, drinking vessels, etc.

Despite the efforts of Benedict Biscop and Wilfrid of York the operative masons of Britain were but a feeble band during the eighth and ninth centuries. Now a church, now a monastery, might be built of stone; but for all domestic purposes wooden buildings were almost universal. Even the castles of the king were built of wood; the old Roman fortresses, long neglected, were now but masses of ruins, and the country was open in every direction to the savage incursions of the Danes, with whom the Britons were almost incessantly at war.

With the accession of Alfred the Great to the throne the building arts received a very helpful stimulus. Alike in civil and military architecture, the genius of this British Prince shines forth transparently. After driving the marauding Danes from his land, he rebuilt the ruined walls of London, and erected at strategical points throughout the country strong and massive fortresses. He rebuilt the ruined churches and monasteries, and adorned his land with many magnificent buildings. "What shall I say," exclaims his biographer, "of the cities which he repaired and of the royal forts and castles which he built of stone and wood with admirable art; in doing which he met with much opposition and trouble from the indolence of his people, who could not be persuaded to submit to any labour for the common safety." In this work, however, King Alfred had to rely mainly upon Continental masons, of whom, says his friend Asserius, "he had an almost innumerable multitude." Not only did King Alfred encourage the art of building himself, but he compelled all his subordinates to follow suit. In less than three years, his daughter Elfleda, Governess of Mercia, built eight or ten castles in her kingdom. In every grant of land given by this Prince, three main charges to which the land is liable are specifically mentioned in the charter. These are (1) military service; (2) building, repairing, and defending castles, city walls, and fortresses; (3) building and repairing bridges. And thus the art of masonry again took root in Britain, nevermore to be destroyed.

Chapter III.—The Norman Era.

FROM the landing of William the Conqueror to the end of the thirteenth century is one of the darkest epochs in the history of British labour. Architecture and masonry flourished throughout the land, it is true, but the lot of the working mason was by no means an enviable one. His services were commandeered at will by the lords and barons of the land.

Alike in military and ecclesiastical circles, the twelfth century witnessed a great revival of architecture. Finding himself in a comparatively unfortified land, and surrounded by enemies on every hand, the Conqueror set himself to build strong castles and fortresses throughout the country. "He excelled," says Matthew Paris, "all his predecessors in building castles, and greatly harassed his subjects and vassals with these works." William Rufus, his son, erected a bridge across the Thames, and built the Palace of Westminster, and the royal castles of Windsor, Dover, Norwich and Exeter. Henry I., too, added greatly to the number of monasteries and fortresses within his land, but the mania for castle-building reached its climax in the unsettled reign of Stephen, Earl of Blois. Apart altogether from the castles built by his predecessors, this last of the early Norman kings, in his short reign of nineteen years, studded the land with no fewer than 1,115 new castles. The author of the "Saxon Chronicle" declares that in this reign "every one who was able built a castle; so that the poor people were worn out with the toil of these buildings, and the whole kingdom was covered with castles."

But if many castles were reared throughout the land in this era, the number of new churches and cathedrals built, and old ecclesiastical buildings restored, was perhaps even greater. Prince vied with prince and baron with baron in covering the land with churches, while with knowing craft the clergy assiduously fostered the prevailing passion. To every one who gave labour, land, stone, lime, wood or money for this purpose, the third part of all penances for sin was remitted. As a result of this it was not infrequently found that on the

day on which the foundation-stone was laid sufficient grants of land, money, and promises of labour would be given not only to erect a magnificent church, but to liberally endow it for all time to come. And some of the churches of that epoch were indeed magnificent. A marked improvement had taken place in the architecture and workmanship of the times. The windows and doorways were wider and loftier. The massive cylindrical pillars built up of smaller stones had disappeared, and in their places were light-shafted piers and symmetrically-moulded arches. The doorways were adorned on either side with tastefully carved clusters of pillars. The carvings were bolder yet finer, and far more varied in character. The larger windows were enriched by harmonious designs in tracery. The semi-circular arch had vanished, and the pointed arch had taken its place—in short, all the familiar features of early Gothic architecture were slowly but surely being developed in the land.

Scotland, too, at this time shared in the general ardour for church-building—King David alone building thirteen abbeys and priories, in addition to many churches and cathedrals.

It is worthy of note, however, that the English and Scottish quarries were not at that time very fully developed, for, from the eleventh to the fifteenth century, a goodly portion of the building stone was imported from abroad, much of it coming from Caen in Normandy, whilst Purbeck or Petworth marble was mainly used for purposes of decoration.

In the fourteenth and early part of the fifteenth century, masonry in mediæval Britain reached the heyday of its prosperity. The Masons' Society had ere that time become a power in Europe, for its ramifications extended practically throughout the whole civilised world. William of Sens, who built Canterbury Cathedral about the end of the twelfth century, is the first master mason of whom we have any reliable record, but it was not until the beginning of the next century that the fraternity was really established in Britain. The College of Masons at Strasburg, in Germany, seems to have been the parent body of this famous mediæval trades guild. At a time when so many churches and castles were being built, masons were naturally scarce, and the union craftsmen were able to command liberal terms from those who employed them. Even the Popes of the Catholic Church granted special indulgences to members of the Masons' Society. Says Mr. Wren—grandson of the famous architect of that name—in his now almost forgotten work, "Parentalia": — "The

Italians, with some Greek refugees, and with them French, Germans and Flemings, joined into a fraternity of architects, procuring papal bulls for their encouragement, and particular privileges; they styled themselves Free Masons, and ranged from one nation to another as they found churches to be built (for very many in those ages were everywhere in building through piety or emulation); their government was regular, and where they fixed near the building in hand they made a camp of huts. A surveyor governed in chief; every tenth man was called a warden and overlooked each nine. . . . . Those who have seen the accounts in records of the charge of the fabrics of some of our cathedrals, near four hundred years old, cannot but have a great esteem for their economy, and admire how soon they erected such lofty structures." All apprentices were indentured to the union—not to any specific employer; and it is interesting to note that in the building and allied trades traces of this ancient custom may yet be seen. Amongst sett-makers it still obtains; in the building trades of Ireland it has not yet died away,[1] whilst at the beginning of last century it was a frequent source of discord amongst masons in the north of Scotland.

The first strike of British masons of which we can find any record took place in 1351, at the building of Windsor Castle. The artificers engaged at this work being dissatisfied with their wages, refused to accept the remuneration offered them, left their employment, and refused to return. This it was that caused the first law to be passed which branded the Masons' Society as an illegal organisation. The "contumacious masons," as one historian terms them, were then sentenced to be branded on the forehead "with an iron made and formed to the letter F" (for false). This law had but little effect, however, and in 1425 yet another Act of a similar nature was passed by the Legislature: "Whereas, by the early combinations and confederacies made by masons in their general assemblies and chapters, the good cause and effect of the statute of labourers be openly violated and broken, in subversion of the law and the great damage of the Commons, our sovereign lord, the King, has ordained that such chapters and congregations shall not be held hereafter: and if any such be made, if they be convicted shall be adjudged felons. And that all other masons that come to such chapters or congregations shall be punished by imprisonment or fine."

[1] See *Stone Trades Journal*, April, 1901.

Thus we see that the Freemasons' Lodges, which to-day proudly rank amongst their members kings, lords and princes, were in their origin but branches of a mediæval trade union formed for the purpose of securing better conditions of life for all engaged in the trade of masonry. The signs and oaths of secrecy — the ancient threat that he who divulges the secrets of the guild should be slain by the hand of the first brother who met him—all these are but memories of the time when masons' meetings were held in the dens and caves of the earth, and when membership of such a union was visited with all the terrible penalties of mediæval law.

A glance at the wages paid to masons at this time may not be without interest to our readers. In 1439, "John Wood, masoun," contracting with the Abbot of St. Edmundsbury for the restoration of the great bell tower, stipulates that the following shall be paid: "Board for himselfe, as a gentilman and his servaunt as a yoman, and thereto, two robys, one for himself after a gentilmanys livery. Wages of masons, three shillings a man weekly in winter and 3 shillings 4 pence in summer." At the building of St. George's Chapel, Windsor (1480—1499), the wages of masons were one shilling a day. At the Quarter Sessions held at Warwick in 1684, wages were fixed as follows: Free mason 1*s.* 4*d.* without board, 5*d.* with; penalty for taking above this rate, twenty-one days' imprisonment.

Chapter IV.—Bits of Old British Masonry—Military.

We have already to some extent traced the slow and varying steps by which the architectural genius of Britain passed from the little mud cabin of primitive days to the rugged strength and quaint beauty of mediæval British masonry. But those old mud cabins have vanished from England now, and only in outlying districts of Ireland

Fig. 1.

and in certain parts of the Scottish Highlands are similar buildings still to be seen. Figs. 1 and 2 represent two such humble dwellings — the starting point of all the world's architecture. When man left behind him the cave and "dug out" of the savage, and built for himself a little hut how-so-ever humble, he took his first great step along the highway of civilisation. Fig. 1 is a faithful representation of a New Zealand village, such as the early Britons may have lived in before the dawn of history. Fig. 2 represents a cabin in County Waterford, built, as will be seen, with alternate layers

of stone and turf. Neither are costly domiciles. Even at the present time such habitations can be erected in the course of a single day, the stone cabin costing from £3 to £5.[1] It was in this second style that the native Britons built their first stone churches, and even when the land was studded with magnificent castles, and abbeys of stately grandeur, the "cottage homes of England" were built of turf and wood, or turf and unhewn boulders. It is therefore in military and ecclesiastical architecture that we find the best remaining specimens of ancient British masonry. We shall, then,

FIG. 2.

examine some of those famous feudal castles—"walk about their bulwarks and tell the towers thereof."

Those ancient castles were generally situated on a hill-side, near a river. The whole of the fortifications were surrounded by a deep, broad ditch, frequently filled with water, called the "moat." On the inner side of this "moat" was a strong turreted wall called the barbacan, designed for the defence of the drawbridge and the castle gate. Inside the barbacan were the massive walls of the castle, from eight to ten feet thick and from twenty to thirty feet high. In this wall was situated the great gate of the castle, which was strongly

[1] Here is an actual estimate of the cost of building such a cabin in County Galway:—Timber for roof, 15s.; one ton of straw, 25s.; cartage of stones, 8s.; cartage of timber, 3s.; building cabin walls, 12s.; making roof and door and fixing up same, 9s; thatcher, four days, 5s.—total, £3 17s

fortified by towers on each side. On the top of this wall were built several square towers, two or three storeys high. In them lived the chief officers and subordinates of the lord of the castle. Inside this wall was another open space called the *ballia* or *ballium*. Here were erected lodgings for the servants and retainers, store houses, granaries, and very frequently a small church or chapel. These chapels were usually dedicated to St. George or St. Martin, the two military saints. On the inside of this outer bayle were what might be termed the inner line of defence, consisting of another moat or fosse, another wall, gate, and towers enclosing the inner ballia. Within this was built the chief tower or *keep*, the palace of the prince or baron to whom the castle belonged. The prodigiously thick walls of this tower were usually four or five storeys high. Underground were the dark and gloomy vaults for the confinement of prisoners, from which it was sometimes termed the dungeon. Donjon or dungeon seems, indeed, to have been the ancient word for *keep*. It is in this sense that Chaucer uses it:

> "The greate towere that was so strong,
> Which of the Castell was the chiefe dongeon."

The following account of the siege of Exeter Castle by King Stephen in 1136 A.D. is given by an eye-witness, and from this it will be evident that our description of an ancient British castle is a fairly accurate one:—"The castle of Exeter is built on a lofty mount surrounded with impenetrable walls, strengthened with Cæsarean towers. In this castle Baldwin de Redvers placed a garrison, composed of valiant youths, the flower of all England, to defend it against the king. . . . The king, however, having formed a very strong and well-armed body of foot, assaulted the barbacan, and, after a fierce and bloody struggle, carried it. He next beat down with his engines the bridge of communication between the castle and the town. . . . He gave the besieged no rest, night nor day. He employed skilful miners to undermine the foundations of the wall. He made use of machines of different kinds, some of which were very lofty, for inspecting what they were doing within the castle, and others very low for battering and beating down the walls." At the end of three months the besieged were obliged to surrender for want of water.

In the story of the siege of Bedford Castle in 1224 A.D. we have another description of a similar castle. The castle was taken by four assaults. "In the first was taken the barbacan; in the second, the outer ballia; at the third attack the

wall of the old tower was thrown down by the miners, where, with great danger, they possessed themselves of the inner ballia, through a chink; at the fourth assault, the miners set fire to the tower, so that the smoke burst out, and the tower itself was cloven to that degree as to show visibly some broad chinks; whereupon the enemy surrendered."

Many of those famous fortifications of the past have long ago vanished from our midst. "There is not left one stone above another that has not been cast down." Nevertheless, scattered throughout the country are a large number of interesting ruins that still testify to the power and influence of the lords and barons of the land. To mention but a few out of many, Richborough in Kent, Castleton in Derbyshire, and Castor in Norfolk are of Roman or Saxon foundation. Exeter Castle is partly Saxon and partly Norman. Arundel in Sussex, Windsor, Carisbrook, the Tower of London, Kenilworth in Warwickshire, and Newcastle in Northumberland belong to the Anglo-Norman age from 1070 to 1170. Windsor gateway and towers, Warwick gateway, and Hampton Court in Herefordshire belong to the fourteenth century.

The fortified gateway of Cowling Castle in Kent, or what remains of it, is an interesting ruin, situated about four miles north-east of Rochester, not far from the banks of the Thames. It was built by Henry de Cobham of Cobham in the reign of Richard II., and had been at one time a fine specimen of the feudal castle we have just described. Originally it was a square, massively built building, but now, with the exception of the gateway, it is little better than a heap of ruins; indeed, for many years, what was once a vast fortified enclosure has been cultivated as a farm. A little towards the south-east of the gateway there may be seen the picturesque remains of a circular tower festooned with ivy. But even amidst the desolation of to-day the bold and handsome gateway retains much of its early grandeur. The massive portcullis that effectively barred the approach of every foe has vanished from beneath the arched doorway, but the grooves in the pillars still remain. A flight of stone steps within each embattled tower led up to the roof. On the top of the towers are projecting parapets with openings for pouring molten substances on the attacking force below.

When the castle was built, its founder, fearful lest the strength of his dwelling should arouse the enmity of the king, caused a tablet proclaiming his good intentions to be

hung on the eastern tower. The inscription on the tablet runs:

"Knowest that best and shall be
That i am mad (e) in help of the contre (country)
In knowing of whiche thyng
This is Chartre and Wytnessing."

Fig. 3 represents another fortified gateway, constructed in somewhat ruder style. It is a remnant of the old walls of Winchelsea, built by Edward I.

Among the finer specimens of fortified gateways still in existence are those of Windsor, Warwick, Pembroke and Caernarvon. Elaborate, if sometimes rude, carving often ornamented the doorways — carved giants and hideous monsters that surely served to strike terror into timorous hearts. Lydgate, describing John of Gaunt's entrance gateway at Lancaster, says it had a

". . . portcullis strong at everie gate,
And many a gargoile and many a hideous head";

while Hawes, describing the castles of his own age, says they were

"Gargoyled with greyhounds, and with liouns,
——— and with divers sundrie dragouns."

This, indeed, is a common feature of many old castles, not only the gargoiles, or waterspouts, but the corbels and gable-ends, exhibiting carved figures often grotesquely shapen.

Carisbrook Castle is one of our oldest English strongholds. It has, indeed, been said by some that the oldest part of the building is of Saxon construction, as early as the sixth century, but this is doubtful. Certainly the principal part of the castle which stands towards the west of the entrance belongs to the early Norman era.

The keep, or principal tower (Fig. 4), is situated on the north side of the fortress on the top of an artificial mound[1] of nearly 60 feet in height. A long flight of seventy-two steps leads up to the principal entrance. Only the lower apartment of that once massive "donjon" now remains. The great tower that withstood unharmed the attacks of the French in the turbulent ages of our history has fallen before the silent blows of the great destroyer Time, and the upper part of the keep has long ago disappeared. At its widest part this principal tower is 60 feet broad.

[1] These artificial mounds are seemingly of Danish origin.

FIG. 3.

Here, too, we may note the ingenious method by which a supply of water was obtained, so that even during a protracted siege the garrison need never lack this first essential of life.

FIG. 4.

In the centre of the keep is a well nearly 300 feet in depth. In nearly every old castle the tower was divided into two equal parts by a partition wall of masonry. Underneath the foundation of this wall the Castle well was situated. Up the centre of this wall a pipe communicating with the well conveyed the water up to the topmost storey of the tower, where a pulley for drawing the water was fixed. This water-pipe communicated with every storey in the tower by means of a small opening in the wall. The well at Carisbrook, however, has for many years been covered over as useless and dangerous.

There is, however, one very necessary feature of a house that we look in vain for among many of those older castles—the chimney. Among the Romans the principle of the modern chimney was quite unknown. Even so late as the fourteenth century chimneys were never used in Rome, for when, in 1368, a Prince of Padua visited that city he took with him masons, who built one at the house in which he stayed, "because in the city of Rome they did not then use chimneys, and all lighted the fire in the middle of the house on the floor." There are no chimneys represented in Saxon drawings or visible among Saxon ruins. Mr. T. Hudson Turner, however, is of opinion that although the chimney first made its appearance in Britain late in the twelfth century, it did not come into general use until a comparatively recent date. This is probably the correct solution, for, although perpendicular flues have been discovered in castles of the former date, Leland, one of the most distinguished antiquaries of his time, who was appointed in the reign of Henry VIII. (1534) to collect by an actual survey information concerning the fortified places of England, expresses some wonder at finding a chimney in Bolton Castle. "One thing," he says, "I much notid in the haulle of Bolton how chimneys were conveyed by tunnels made in the sides of the walls, betwyxt lights in the haull, and by this means and by no louvers is the smoke of the hearth in the hall strangely conveyed." The louvre was an opening of a turret shape on the roof to allow the smoke to escape from the hall or kitchen. In Rochester Castle (1130), where complete fireplaces were built in the walls, a rather unique form of chimney existed. The flues went up the middle of the wall only a few feet, and then turned out through the wall to the back of the fireplace, in several small openings of oblong shape. It was not until the end of the fifteenth century that chimneys came into general use. Our illustration

(Fig. 5) represents an old chimney that is almost unique of its kind. It is in the ancient kitchen of Stanton Harcourt, in Oxfordshire, at one time the residence of the poet Pope. The kitchen itself is a room nearly 30 feet square, and 60 feet high to the point of the roof. It contains two spacious fireplaces against the wall and opposite to each other, each of which is large enough to roast an ox whole. But the smoke of this

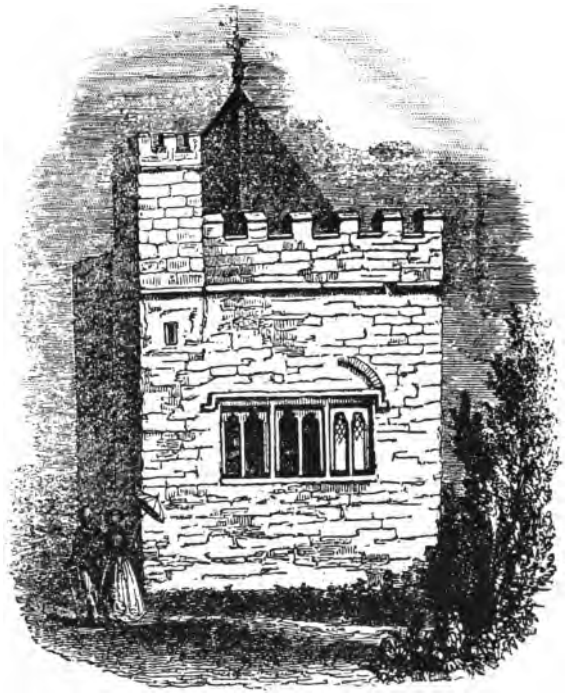


FIG. 5.

kitchen escapes at neither louvre nor chimney, but at a number of small holes, each about 7 inches in diameter, situated all around the roof. These little outlets on the roof are covered by folding doors of wood, which may be opened or shut according to the direction in which the wind is blowing. Thus, it has been said, "one may truly call it either a kitchen within a chimney or a kitchen without one." The

only other kitchen of a similar kind is said to be that which belonged to the ancient Abbey of Glastonbury.

But perhaps the most perfect remaining specimen of military architecture is Warwick Castle. The keep, erected, it is said, in the Anglo-Saxon era, is now but a picturesque ruin, but its two famous towers are still entire. These were built by Thomas de Beauchamp in 1395. The taller of the two, "Guy's Tower," has twelve sides, and rises to a height of 148 feet. It is 38 feet in diameter, and contains five storeys, separated from each other by groined roofs. The total cost of building this tower is said to have been £395 5*s.* 2*d.*

But time and space forbid us examining more of the interesting ruins that still abound in England. Rather let us investigate more closely the practical masonry of those buildings. The materials used depended largely, of course, upon the kind of stone available in the different districts. Caen stone was largely used for ashlar work. Egremont stone (Cumberland) was used in building Windsor Castle. Boulogne, Pevensey, Corse, Reigate, and Folkestone quarries were amongst the first quarries worked in England. Walls of 10 and 20 feet thick were usually faced on both sides with carved or rough-hewn stones, the middle of the wall being built up of rough, uncut boulders, with flint, pebbles, broken tiles, and sea shells imbedded in a mortar that in the course of years became firm and indissoluble as adamant. In Colchester and Arundel Castles Roman bricks and tiles, built in rows of herring-bone masonry, were used withinside the walls, while for certain repairs executed at Newgate in 1282 the following items are charged:—"In the purchase of broken tiles 2*s.* 4½*d.* In four score and four bags of lime, 7*s.* In twelve cart-loads of sand, 2*s.*"[1]

Even to-day, as a writer on the subject has remarked, "The old rounders of imperishable stone and cement, which last even hardens by time, contain in themselves no more principle of decay than the rock on which they stand." Chaucer gives us in his translation of "The Romaunt of the Rose" a curious account of the cement then used for grouting the walls. It was made, he says,

> —— "of licoure, wonder dere; (very costly)
> Of quicke lime persaumt and egre: (piercing and sharp)
> The which was tempered with vinegar."

The tempering with vinegar may be but a poetical fancy of the old French romancist, although this is hardly probable.

[1] "Domestic Architecture in England," by T. Hudson Turner.

Even to-day vinegar is used in a special cement for mending earthenware and china. And those old writers were extremely accurate in all their descriptive imagery. Chaucer himself, too, had an intimate knowledge of practical masonry, having held for many years the post of "Clericus Operatium" (Clerk of the Works) of all the Royal palaces, at a salary of two shillings a day.

The architects of those days had seemingly developed one very objectionable practice—that of covering up even the finest masonry with paint or whitewash. In the thirteenth century, when coals were first introduced into London, the inhabitants indignantly protested against their use as fuel, on the ground that the smoke destroyed all the whitewashed walls of the city. Even part of Windsor Castle was painted in variegated colours like a piece of Scottish tartan. In contemporary drawings, the ashlar in front of the castles is often represented painted in colours like a chess-board. Henry III. from time to time directed the stonework in the Norman Chapel in the Tower to be whitewashed.

We have already noted that in connection with these vast military fortifications masons were liable to be impressed at the will of the lords of the land—as, for example, when in 1392 John of Gaunt obtained a warrant from Richard II., empowering Robert de Skillington, master mason and supervisor of his buildings at Kenilworth, to impress twenty masons and carpenters. But masons were apt to be impressed for other military work. It seems that during the fourteenth and fifteenth centuries cannon balls were frequently made of stone. Richard II. in 1378 commissioned Thomas Norwich to buy two great and two small cannon, and also six hundred balls of stone for cannon and other engines of war. When Henry IV. sent his daughter Philippa over to Denmark to her husband, the ship in which she sailed contained, amongst other munition of war, two guns and forty stone balls. To secure a sufficient number of masons to make those cannon balls the "press-gang" was often set to work.

In 1419 Henry V. commissioned John Louth, Clerk of the Ordnance, and John Bennet, mason in Maidstone, to press a number of masons to make 7,000 cannon balls in the quarries of Maidstone Heath; while in 1481 Edward IV. commanded William Temple "to press masons, smiths, and plumbers to make cannon balls, some of stone, some of iron, and some of lead."

Chapter V.—Bits of Old British Masonry—Ecclesiastical.

" In Saxon strength that Abbey frowned,
With massive arches broad and round,
That rose alternate, row on row,
On ponderous columns, short and low,
Built ere the art was known,
By pointed aisle and shafted stalk,
The arcades of an alley'd walk
To emulate in stone." —*Marmion.*

SCARCELY less interesting than the ruined castles of prince and baron are the abbeys, cathedrals, and conventual churches of bygone days.

" Clad in their old russet coats,
The same they wore some hundred years ago,"

they not only form picturesque features in the landscape, but in them as from a printed book we may read the story of the gradual development of the art of masonry in Britain.

For purposes of classification, ecclesiastical architecture in Britain is divided into four different epochs—(1) The Saxon era, dating from the reign of Egbert to the Norman Conquest; (2) the Anglo-Norman and Norman eras, from 1050 to 1150; (3) the era of Gothic or Pointed architecture [in Britain Gothic architecture is sub-divided into three classes: (*a*), thirteenth century, or Early English; (*b*), fourteenth century, or Decorated; (*c*), fifteenth century, or Perpendicular]; (4), the Renaissance, a revival of classical forms, which includes practically all buildings erected after the fifteenth century.

From their intercourse with Rome, our Saxon masons and architects naturally enough followed the Roman plan of churches, alike in design and actual construction. "The western front of their churches," says the learned antiquary Rev. James Dallaway, "had a portico or ambulatory, and the eastern was semi-circular, and resembled the tribune in Roman Basilicæ." Generally those Basilica churches consisted of a nave and two, or sometimes four aisles. The Saxon era was well advanced before the transept was added at each

side, thus giving the church its now familiar cruciform shape. Even yet, however, the basilica church is not wholly defunct in Europe. St. Vincent de Paul, in Paris, built in comparatively recent years, is in this style. In Munich, too, there is a modern basilica church richly decorated with frescoes.

No perfect specimens of Saxon masonry remain extant. Here we may find a nave or tower, and there a few feet of the original foundations, but what the ravages of time might have left unscathed, the reforming zeal of our forefathers has hurled into ruins. Although 120 churches which show more or less distinct traces of Saxon style are enumerated by Rickman, there is no instance of a complete Saxon church built before the Conquest. Probably the most perfect specimen is the little Church of St. Laurence at Bradford-on-Avon, in Wiltshire.[1] Of it the learned Professor Freeman says: "It is the one surviving Old English church in the land. . . . So perfect a specimen of primitive Romanesque is certainly unique in England; we should not be surprised if it is unique of its own kind in Europe." St. Laurence is a building of uncertain antiquity, but it was probably erected towards the end of the seventh century, and is generally regarded as the oldest stone church in England. Two or three different buildings, however, have been put forward from time to time for this peculiar honour — among others, the Church of St. Martin's, near Canterbury, and the Abbey Church at Monkwearmouth. When the external stones of St. Martin's Church were removed and the original walls of the chancel uncovered, these were found to have been built entirely of Roman brick. This in itself, however, is by no means a proof of high antiquity, for so late as the twelfth and thirteenth centuries the foundations of old Roman buildings then existing were freely utilised as quarries by the masons of the period. Of the Abbey Church at Monkwearmouth only the Saxon tower remains. This was built in A.D. 674.

More than any other building, however, the tower of Earl Bartons, in Northamptonshire, retains the rude forms of Saxon masonry; and from this, and other less important remains, one can form a fairly accurate idea of the workmanship of the period.

Saxon masonry is easily recognised by its square, massive piers or cylindrical columns, and its semi-circular arches. The latter feature, however, is common also in buildings of

[1] An extremely interesting sketch of this church, by Mr. Harry Hems, appeared in the *Stone Trades Journal*, November, 1901.

Norman construction. The walls of the churches are so thick and the pillars so bulky, that buttresses are quite unnecessary. Only in one or two instances have these been identified with buildings erected prior to the reign of Henry III. Seldom are architraves used to adorn the tops of the pillars, the arches springing direct from the capitals.

FIG. 6.—WALTHAM ABBEY AND MONASTERY GATEWAY.

Generally, however, there were some crude attempts at ornamental work. In the chancel of Orford, in Suffolk, a twisted cable is wound round the pillar. The zig-zag moulding, the embattled scroll, the semi-circular or drop moulding, and the billet moulding, with small square cavettos each alternately a little deeper than the other, served to adorn the pillars and doorways, while eagles' beaks and curiously carved heads of animals, real and mythical, were used as corbels and small capitals. At best, however, the ornamentation was rude in design and clumsy in detail. In sculpture the disproportion between heads and bodies is always very great.

Fig. 6 takes us into the Norman era of masonry. Waltham Abbey originated in a church founded by the standard-bearer of Canute. The oldest part of the present building, however, dates from the reign of Edward the Confessor. In its original

FIG. 7.—CHAPEL IN NEWCASTLE CASTLE.

form it must have been a magnificent specimen of early architecture. It consisted of a nave, choir, transept, several chapels, and a large tower containing "five great tuneable bells." Many additions and alterations have been made since then, and to-day the nave and the Lady Chapel alone remain.

The nave, with its side aisles, forms the body of the present church. The bridge across an arm of the River Lea, represented in our illustration, was also a part of the old monastery. The gateway, as will be observed, is of a later style of architecture than the rest of the church, while the old tower bears the date of 1558.

Fig. 7. Our view of Waltham Abbey, however, shows us but the exterior parts of Norman masonry. Our next illustration shows us the interior construction of a little Norman chapel in Newcastle Castle—a splendid specimen of the architecture which prevailed in England at the time of the Conquest. The characteristic arches, pillars, and mouldings of the period will be readily noted. Newcastle Castle was founded in A.D. 1088, and the chapel is one of the oldest parts of the building. Bourne thus describes the chapel as it existed in the eighteenth century: "It has been a work of great beauty and ornament, and is still, in the midst of dust and darkness, far the most beautiful place in the whole building, the inside of it being curiously adorned with arches and pillars. It is easy to observe the different parts of it—the entrance, the body of it, and the chancel. On the left side of the entrance you go into a dark little room, which undoubtedly was the vestry. The full length of it is fifteen yards, the breadth of it six and a half yards. It had three or four windows towards the east, which are now all filled up."

The fragments of Norman masonry scattered throughout Britain are so numerous (comparatively speaking) that anyone interested in the subject may, with but a little expenditure of time and trouble, examine for himself the actual workmanship of those bygone artisans. In Scotland there is a fine example at Leuchars Church, in Fifeshire. In the metropolis one may examine the chapel of the Tower of London and the Church of St. Bartholomew the Great at Smithfield. In the Crystal Palace, too, there are some interesting examples of Early masonry. These include the Priors' Doorway from Ely Cathedral (twelfth century), the doorway of Kilpeck Church, Hereford, A.D. 1141, and the doorway of Shobdon Church (twelfth century), quaintly coloured, and having grotesque figures and animals, and some curious pieces of twelfth-century sculpture. Then in other parts of the country there are, to mention but a few of the more noteworthy examples, parts of Canterbury Cathedral, and nearly all Durham, Rochester, and Peterborough.

The great strength and durability of Norman buildings depended on their massive proportions and skilfully-made mortar, rather than on scientific methods of construction. Bondstones, tying together the outer and inner courses of ashlar, were very rarely used—never in walls of great thickness. Nor were the piers, when built up of separate parts, strengthened in anywise by interbonding, but each member throughout the entire thickness of the wall was built up of

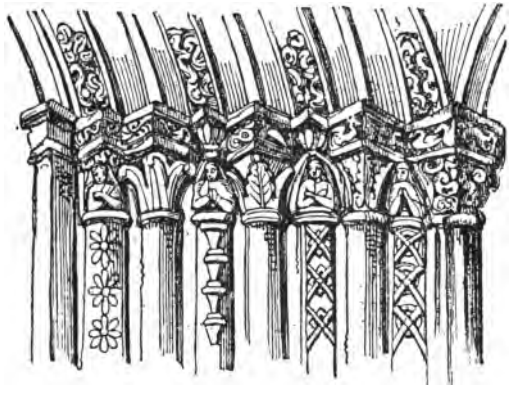
FIG. 8.—THE DOOR OF THE TEMPLE CHURCH, LONDON.

separate layers of stone, all of which were exactly similar. The result was that their powers of cohesion depended entirely on the strength of the cement with which they were joined together, and where, from various causes, this gave way, many an antique doorway crumbled into ruins.

Norman masonry is, of course, but a branch or development of the earlier Saxon. In its earlier stages it is differentiated from the latter by its loftier vaulting, larger dimensions of pillars and capitals, which show more elaborate carving, and a greater variety of ornament. Not infrequently, as at Rochester

and Chichester, the walls are ornamented by what Chaucer calls "hackings in masonries"—projecting ornaments cut in diamond or lozenge shape. Gradually, however, improvements in design and workmanship crept in. (There is, indeed, a greater difference between the earlier and later stages of Norman masonry than between the earliest Saxon and the earlier Norman work.) New ornaments were introduced. The single narrow window gave place, first to double, then to triple windows, the centre one being highest. The carvings also, were more finely proportioned than those of the former century.

Figs. 8 and 9, showing the porch of the Temple Church in



[Porch.]

FIG. 9.—DETAIL OF TEMPLE PORCH.

London, will, however, illustrate better than any words of mine the finer features of Early Norman masonry. Like all buildings of the period, the outer walls are abnormally thick, and thus the doorway is of necessity very deeply moulded. Along the whole depth of the wall, as will be observed, is a succession of decorated pillars, surmounted by a corresponding number of semi-circular arches. Mr. Brayley, in his "Londiniana," thus describes the architectural features of the building: "All the exterior walls, which are five feet in thickness, are strengthened by projecting buttresses. The clustered columns which support the roof are each formed by four distinct shafts which are surrounded near the middle by a triplicated band, and have square-headed capitals ornamented in the Norman style. The principal entrance is

directly from the west, but there is a smaller one on the south-west side; the former opens from an arched porc h, and consists of a receding semi-circular archway, having four columns on each side supporting archivolt mouldings, which, as well as the capitals and jambs, are ornamented with sculptured foliage, busts, and lozenges."

The oldest part of this interesting church belongs to the latter half of the twelfth century—certainly not later than 1185, for we learn that in that year it was dedicated to the Virgin Mary, by Heraclius the Patriarch of Jerusalem, when he visited Britain. At that time it was in all likelihood but newly erected. The eastern part of the church, which was built about 1240, is an interesting example of the Early English style of pointed architecture. The Temple in former days was the property and chief seat in England of the renowned community of military monks, the Knights Templars —hence its name. In its original form it was one of several round churches built by that community, having as their common model the "Holy Sepulchre" at Jerusalem. Of these round churches only four now remain, the oldest and most perfect of them all being St. Sepulchre's Church at Cambridge (A.D. 1120).

BITS OF GOTHIC ARCHITECTURE.

"The darken'd roof rose high aloof
On pillars lofty and light and small:
The keystone that wrought each ribbed aisle,
Was a fleur-de-lys or a quatre-feuille;
The corbels were carved grotesque and grim;
And the pillars with clustered shafts so trim,
With base and with capital flourished around,
Seem'd bundles of lances which garlands had bound.

"The moon on the east oriel shone
Through slender shafts of shapely stone,
By foliaged tracery combined;
Thou wouldst have thought some fairy's hand
'Twixt poplars straight the ozier wand,
In many a freakish knot had twined;
Then framed a spell when the work was done
And changed the willow wreaths to stone."

The Lay of the Last Minstrel.

Into the seemingly interminable discussions as to the actual origin of Gothic architecture it is unnecessary to enter here. Such discussions pertain to the history of architecture rather than to that of masonry. Suffice it to say that here, as in other domains of life, necessity was the mother of invention.

The Pointed arch was first used in vaultings, where it was often necessary to have arches of equal heights, yet of different widths. After it was introduced into roofs, it was gradually utilised in other parts of the building. Pointed arches, however, were in common use in France more than a hundred years before their introduction into Britain. The earliest authenticated instance of their use in this country was at the building of the church of Finsbury in Kent, 1125 to 1157. It was not, however, until the rebuilding of Canterbury Cathedral after the fire of 1174, that this style of architecture was attempted on a large scale. William of Sens, who was "master mason" in the earlier years of that important undertaking, probably did more than any other single individual of that period to popularise Pointed architecture and otherwise advance the art of masonry in Britain. This distinguished craftsman was not architect merely of the work which he supervised; he was, says Gervaise of Canterbury, "a most exquisite artist both in stone and wood." He made a model, not only of the whole cathedral, but of every separate piece of sculpture and carving, for the guidance of his workmen. He invented, too, many ingenious appliances for loading and unloading ships; for the art of quarrying large blocks of stone was not at that time known in Britain, and most of the principal stones were shipped over from Normandy. He improved the appliances then in use for elevating heavy stones to lofty parts of the building. In addition to all this, he was the first architect who constructed successfully ribbed and vaulted ceilings in stone.

In the improvements in masonry that were thus inaugurated, the masons' associations took an active part. True, they surrounded their knowledge of practical craftsmanship and geometric science with a glamour of secrecy, and utilised their special learning much as the possessors of some coveted trade secret would do even in the present day. None but those duly initiated might learn the secrets of the craft. All the lectures and instructions were delivered orally, lest the outer world should discover unwittingly the hidden mysteries of masonry. In their own fraternities the medieval masons, wandering continually from town to town and country to country, did much to further the advancement of Gothic architecture in Britain. Says Mr. Whittington: "From the rise of the Gothic in the twelfth to its completion in the fifteenth century, the improvements are owing to the munificence of the Church and the vast abilities of the Freemasons in the

Middle Ages. These scientific persons have great claim to our admiration from the richness and fertility of their inventive powers. By them the Eastern style was transplanted into the West; and under them, it was so much altered and amplified that it assumed an entirely new appearance. These immense works produced a host of artificers, out of whom, in imitation of the confraternities which for various purposes had existed from ancient times, companies were formed, academies, schools and bodies were established. An oath of secrecy was administered to the novitiates; a veil of mystery pervaded their meetings, which in an age when many were ignorant conferred importance. Such institutions in the infancy of science were singularly beneficial. By their efforts new lights were elicited and valuable discoveries were extensively diffused."

With the rise of Gothic architecture the massive workmanship of Norman date was speedily abandoned. Even where the walls rose to a height of over fifty feet, they were frequently not more than two feet broad at the top, while the groined vaultings of the ceilings were but from nine to ten inches thick. A modern engineer of more than European fame recently declared that in technical ability, and in the art of accurately calculating the proportions of strength to burden, the master-masons of the fourteenth century have very rarely been equalled. In the highest ranks of the land their skill was freely recognised, for when Henry III. decided to build Westminster Abbey he took into consultation many master-masons of the time. Not infrequently the master-masons prepared the plans as well as supervised the actual work of building. At other times, more especially in the Norman era, when nearly every branch of learning was exclusively confined to the Church, they simply worked under the direction of an ecclesiastical architect.

Our illustration, Fig. 10, shows us Gothic architecture in the zenith of its beauty. It represents a portion of the stone canopy of Our Lady's Chapel in Ely Cathedral. In this era,

> "the arch'd and ponderous roof
> By its own weight made steadfast and immovable,
> Looking tranquillity,"

was a characteristic feature of ecclesiastical architecture. The wooden roofs of wider span had been abandoned, the nave was made narrower, buttresses were used for external support, and the vaulted stone ceiling—plain at first, but afterwards ornamented with beautiful designs in sculpture

and carving — became the crowning triumph of medieval masonry. In the reign of Henry III. many such roofs were

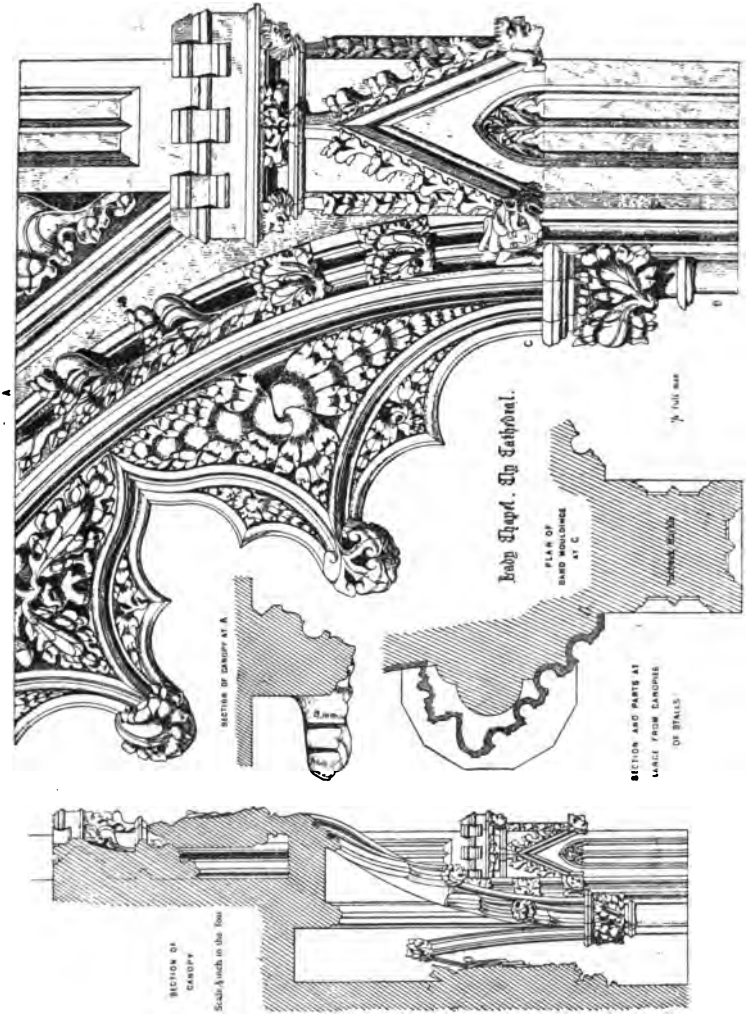


FIG. 10.—FROM COLLINS' "GOTHIC ORNAMENTS," 1849.

constructed, the system perhaps reaching its highest point of perfection under the rule of Edward III. This was indeed the spring-time of British masonry. Architect vied with

architect, and mason with mason, in endeavouring to supersede all former attainments. Time and money were alike spent lavishly[1] in order to attain a still higher excellence in design and finish, for the mason's skill in carving had fully kept pace with the growing skill of the architect in designing newer triumphs. Indeed, the architecture of any age can only advance as the cunning hand of the operative succeeds in skilfully executing the designs of our "artists in stone." The chisel again came into use among British masons, and, as a result, far finer workmanship was possible; the sculptured foliage was undercut more freely, and the stiff and clumsy appearance of Norman carving gradually disappeared.

If (and who shall doubt it) pride in work well done is the secret of all advancement in art and science, the masons of those days had indeed discovered it, for the dearest wish of the medieval mason was that, after he had laid aside his hammer and chisel for ever, his bones might rest under the mighty roofs which with his own hands he had builded. In these latter days there would, we fear, be some masons (master and operative alike) who in their last sleep would rest somewhat uneasily in such a position.

The little chapel in our illustration is freely recognised as containing some of the most exquisitely finished and finely conceived specimens of Gothic sculpture in Britain. Ely displays all the various kinds of architecture from Early Norman to Late Perpendicular, but the Chapel of Our Lady belongs to the era of pure Gothic. It was erected between the years 1322 and 1349 from designs by Alan de Walsingham, Prior of Ely—"Vir venerabilis et artificiosus frater" as one old chronicler terms him.

Of the masons who built those sacred edifices the names of but a few are preserved. Nearly a century ago a diligent and painstaking antiquary[2] published a list of the earliest known "master masons" in Britain. Among those mentioned are William Anglus, who succeeded William of Sens at Canterbury Cathedral (twelfth century); Adam de Clapham, employed in 1200 to build Caernarvon Castle; Michael de Canturia, built St. Stephen's Chapel, end of thirteenth

[1] As an example of the cost of erecting those medieval buildings we may note that King's College Chapel, Cambridge (1441 to 1515), cost £22,469 2s. 7d.—about £300,000 at the present day. This includes: for the great stone roof, £1,200—about £18,000 at present; for sixty-eight images, £72—nowadays about £1,000. Henry VII.'s Chapel at Westminster cost £14,000, and the stone roof thereof £1,200. On Windsor Chapel, in four years only, a sum of £6,572 was spent.

[2] Rev. James Dallaway.

century; Richard de Stowe, built Lincoln Cathedral in 1306; Henry Latomus, 1300—1319, Evesham Abbey; Walter de Weston, master mason at St. Stephen's, Westminster, 1331; William Wynford, built nave of Winchester Cathedral; Robert de Skillington, master mason at Kenilworth Castle, 1392; William Horwood, Chapel at Fotheringay College, 1435; John Westell and Henry Lemerk, King's College, 1444; John Smyth, Eton College, 1450; Edward Lemerk, St. George's Chapel, Windsor, 1480; John Woolrich, King's College, 1476; John Wood, Abbey of St. Edmundsbury; William Orcheyerde, "master of masonry of Magdalen College, Oxford, 1475"; John Cole, tower and spire of Louth, Lincolnshire; Robert Vertue, works in the Tower of London, 1501; Robert Smyth, Richmond Palace, 1505.

Chapter VI.—Bits of Scottish Masonry.

ROBERT BURNS, in one of his letters, remarks that the dearest wish of his heart was to acquire sufficient means to enable him "to make leisurely pilgrimages through Caledonia, to sit on the fields of her battles, to wander on the romantic banks of her rivers, and to muse by the stately towers or venerable ruins, once the honoured abode of her heroes." To every Scotsman, but especially to those who are interested in the art of masonry, the heart's desire of our national poet must seem a very natural one. Even more indelibly than in England, the story of our national progress is writ in documents of stone, for the older relics of Scottish masonry far antedate all written history. In the Barmkin of Echt in Aberdeenshire and in the Caterthuns near Brechin in Forfarshire, we have examples of fortifications ascribed to the aboriginal inhabitants of Caledonia. In the sculptured stones scattered throughout that part of Scotland inhabited by the Pictish race, we have (apart from the old Druid circles) the oldest of Britain's stone monuments. The custom of erecting stones in memory of departed men of note was common in Scotland in Pagan times, and, like many other heathen practices, was adopted by the early missionaries of the Christian faith. Generally those monuments are rude, unhewn boulders of varying size. Over two hundred in all are known to exist north of the River Forth, the ancient boundary between Dalriada and the kingdom of the Picts. On about half of that number are to be found sculptured crosses and other rude symbols of the Christian faith. Rarely, however, is the cross to be found on the sculptured stones of Aberdeenshire. There one will find more frequently, as on the Maiden stone in Garioch, rude representations of a mirror and comb, a horse-shoe arch or some grotesquely shapen animals. These sculptured stones show us the first rude attempts at stone carving by the ancient Scots, and are the oldest vestiges of the Christian faith in Scotland.

The primitive wooden churches, built by the holy men of old, who in days of heathen darkness held aloof the light of the newer faith, have long ago crumbled into dust, and the

very places whereon they stood are all but forgotten. Even the site of St. Ninian's church of stone, famed though it was through many centuries as a shrine, whither kings and princes, preachers and warriors from many lands made long pilgrimages, cannot now be shown to the curious tourist. "They have," says the learned Dr. Robertson, "forgotten Whithern as utterly as if it had been the commonest spot of earth in their country." True it is, that in the early part of last century an English writer stated that "a roofless and ruined chancel built about the end of the twelfth century occupies the site of much more ancient buildings, which had been the crypt, it would seem, of an extensive church; for there are large vaults of old and rude masonry around, which rise higher than the level of the chancel floor." "These," he continues, "must have been part of the original church of St. Ninian of the fourth century, or built by the Saxons in the eighth century, and it would be interesting to ascertain whether they are not really part of a church, the building and date of which are so marked in the ecclesiastical history of Scotland."[1] But beyond this meagre conjecture, no one has ventured to go.

It was not, however, until the eighth century that the art of masonry really took its rise in Scotland, all the early northern churches being built of wood and wattle. Even the monastery which St. Columba founded in Iona in the middle of the sixth century was but a rude log-house or wigwam.

Fig. 11 is one of the very old monastic buildings on the Great Skellig, an island off the coast of Kerry. These interesting buildings, which were first brought to light in Ireland by Dr. Petrie, are built entirely of dry stone, without cement or mortar. As Ireland in those early days exercised a powerful influence on Scottish life, one naturally expects to hear that similar Celtic buildings existed once in many parts of Scotland. The original stone monastery at Iona is said to have been of this type. In the lonely isle of St. Kilda there was at one time the remains of a beehive house such as this, "built of long thin stones, without cement, and famous in the traditions of the islanders." Pennant, too, writing at a time when, as he says, "Scotland was almost as little known as Kamtschatka,"[2] tells us that he saw at Mugastot, in Skye, "the remains of a monastery of great antiquity, built with great stones without mortar."

1 "Lives of the English Saints."
2 Pennant made his tour through Scotland in the year 1769.

But castles as well as monasteries were evidently built in this style, for a Scottish antiquary, writing half a century before the days of Pennant, describes four ancient castles of this type, situated in the valley of Glenbeg. These stone edifices, remarks the writer, are of a very extraordinary style of masonry, of which I have heard of no examples in any other part of the world. "Having arrived at Glenelg, I was conducted to the remains of those stupendous fabrics seated about two miles from thence in a valley called Glenbeg, in which four of them anciently stood. Two of these are now

FIG. 11.—MONASTIC CELL, SKELLIG MICHAEL.

almost quite demolished, the third is half fallen down, the fourth is almost entire." Describing the third fabric, Castle Tellue, our antiquary continues: "I found it composed of stones, without cement, not laid in regular courses after the manner of elegant buildings, but rudely and without order. Those towards the base were pretty large, but ascending higher, they were thin and flat, some of them scarce exceeding the thickness of an ordinary brick. I was surprised to find no windows on the outside, nor any manner of entrance into the fabric, except a hole towards the west, at the base, so very low and narrow that I was forced to creep in upon hands and knees, and found that it carried me down four or five steps below the surface of the ground. When I once got into the area or the inner court, I perceived that one-half of the

building was fallen down, and thereby had an opportunity of seeing a complete section thereof. The two walls joined together at the top, round about, and have formed a large void space or area in the middle." Describing Castle Troddan he says: "The perpendicular height of the fabric is exactly 33 feet, the thickness of both walls, including the cavity between, no more than 12 feet, and the cavity itself is hardly wide enough for two men to walk abreast; the external circumference is 178 feet. The whole height of the fabric is divided into four stories, separated from each other by thin floorings of flat stones, which knit the two walls together and run quite round the building."[1]

But soon those primitive Scottish castles gave place to stronger fortresses built with greater skill. Strange to say, however, Scotland does not now possess a single recognisable specimen of a Norman castle—not even on the debatable borderlands where the English and Scottish hosts so often met in battle. That such castles did exist, however, is practically certain, but it is not improbable that in a more peaceable age they were utilised as quarries by the builders of the period, just as in later years Melrose Abbey supplied stones to build a tolbooth and mend a mill, and the fine old Abbey of Aberbrothock was "farmed out as a common quarry."

The oldest existing Scottish strongholds appear to date from the days of Bruce and Wallace. Kildrumny, in Aberdeenshire, is claimed by Mr. Billings as the first recognisable Scottish castle. This ancient fortress is now but a picturesque ruin; even the "Snow Tower," of which Scottish poets were wont to sing, has vanished, and the ancient walls so often burned and defaced are slowly crumbling away. The oldest part of the castle was built about the middle of the thirteenth century, and along with its fortifications covered three Scots' acres of ground. The walls are 18 feet thick, with several rooms—evidently secret—within them. The castle is built of dressed freestone, and when we visited it the other summer we were particularly struck with the excellence of the masonry.

One characteristic of old Scottish castles which will in all probability attract the attention of the casual visitor, is the display of Royal Arms carved in stone over the chimney-pieces of the great hall, and evidently confirming the remark made by the old Earl of Angus to Marmion:—

> "My castles are my kings alone
> From turret to foundation stone."

[1] Gordon's "Itinerarium Septentrionale."

Fig. 12 is a fine example of a Scottish border keep or peel, one of that numerous class of fortifications which consists of a single tower surrounded by embattled walls. Borthwick Castle, famous once in Scottish history, was built about 1430 by the first Lord Borthwick on a place called the Mote of

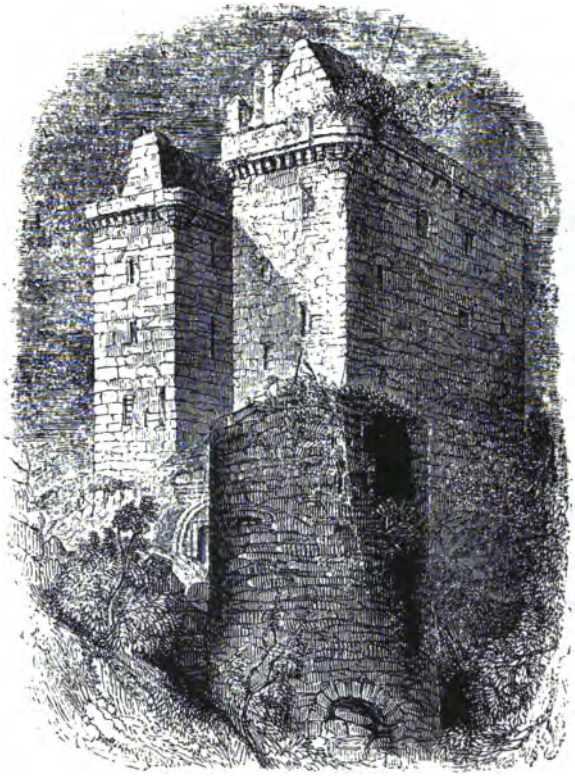


FIG. 12.—PRESENT REMAINS OF BORTHWICK CASTLE.

Locherwort. It stands on a small eminence surrounded by water on every side except the west. None of the border castles, however, equalled in grandeur the Gothic edifices of Alnwick and Naworth. The strength of the border fortresses lay rather in their inaccessibility than in artificial strength. As Sir Walter Scott says, "The maxim of the Douglases, that it was better to hear the lark sing than the mouse cheep,

was adopted by every border chief. . . . In short, the situation of a border house, surrounded by woods, and rendered almost inaccessible by torrents, by rocks and morasses, sufficiently indicated the pursuits and apprehensions of the inhabitants."

It is, however, in ecclesiastical rather than in military architecture that the skill of our early Scottish masons will most readily be observed. The era of bee-hive houses passed slowly away, and edifices more in harmony with advancing civilisation took their places. The round towers of Brechin and Abernethy, and of St. Eglishay in Orkney, may be fittingly regarded as showing the second stage in the development of masonry in Scotland. Like the monastic cells, those round towers bear unmistakable proofs of their Irish origin. Indeed, about 118 towers of this description are still to be seen in Ireland, twenty of which are practically entire. It has indeed been shown by Dr. Petrie in his "Ecclesiastical History of Ireland," that the Celtic tower of Brechin was built by Irish missionaries about 1010, or a few years after the death of King Kenneth MacMalcolm. What purpose those round towers served it is impossible now to say. In a more turbulent age they were probably used as strongholds for the protection of church valuables, and also (before the introduction of bells) as a convenient spot from which to summon the inhabitants to church. When bells came into use they were also used as "bell-towers." They are generally about 80 feet in height, capped by conical roofs and divided into four or five stories by strong floors of masonry. On the Celtic tower at Brechin may be seen the oldest specimens of ecclesiastical figure sculpture of which Scotland can boast. The figures are small and rude, scarcely over 18 inches in height. In the centre is a representation of Christ's crucifixion, while on each of the jambs is the figure of an ecclesiastic. At the base are two crouching figures of Celtic character. Like the tower itself, these sculptured figures are evidently of Irish origin, being similar in nearly every detail to those on the doorway of the round tower at Donoughmore.

Gradually, however, Norman masonry began to supplant the early Celtic buildings. The sculptured doorway of the quaintly interesting Norman church at Dalmeny illustrates the transition of Celtic into Norman art. The church itself is a fine old specimen of medieval architecture, and dates from the twelfth century; but on the inner mouldings of the main doorway, and also to a lesser extent on the outer moulding,

are carved the hippocampus and other grotesque figures that occur so frequently on Celtic sculptured stones. It is not improbable, however, that not a little of this earlier sculpture was executed by Continental workmen. The Exchequer Rolls of the period, for example, tells us that the tomb of Robert the Bruce was executed in Paris by a Richard Barber, who was paid for the work a sum equivalent to £13 6*s.* 8*d.* in modern money. But whether built by Scottish or Norman masons, both Leuchars and Dalmeny will compare very favourably with any contemporary specimens of English architecture. But there is no need to recount in detail the further growth of Scotland's abbeys and cathedrals. To the erection of Kirkwall Cathedral in the far north all Christendom is said to have contributed. Elgin, grandest of all our northern minsters, is still worth journeying many a mile to see, although shorn now of much of its early grandeur. Towards the end of the fourteenth century, the Bishop of Murray, writing to King Robert III., described it as "the pride of the land, the glory of the realm, the delight of wayfarers and strangers, a praise and boast among foreign nations, lofty in its towers without, splendid in its appointments within, its countless jewels and rich vestments, and the multitude of its priests." But the "Wolf of Badenoch," the king's own brother, descended on the little town with a band of wild marauders, ravaged the city, burned eighteen churches and manses, and also the far-famed cathedral.

Thanks to the zeal of four energetic bishops it was promptly rebuilt, although all its original features were scarcely retained.

The Abbey of Arbroath, founded in 1178, retains a few faint traces of Romanesque, and illustrates the passing of Scottish architecture into the first Gothic style. In Scotland the era of early pointed architecture extends from 1180 to about 1285. This, indeed, was Caledonia's busiest age of church building. Not only Kirkwall, Elgin, and Arbroath, but St. Andrew's, Glasgow, Whithern, Brechin, Dunblane, Dunfermline, Jedburgh, Holyrood, Dryburgh, Kilwinning, Lindores, and many other stately churches were erected in this era. King David, that "sair sanct" for the Scottish crown, fostered the prevailing passion by every means in his power. Indeed, so many magnificent edifices were erected at this time that artificers employed in building became exceedingly scarce, and the price of labour so high, that even so late as the reign of James I. it became necessary to pass laws compelling the wealthier classes to build.

During the building of St. Andrew's Cathedral (1162—1178), Bishop Richard found it necessary to issue letters to the aldermen and burgesses of the burgh forbidding them "to seduce or withdraw any of the builders, hewers, quarriers, or other

FIG. 13.—INTERIOR OF THE CATHEDRAL CHURCH OF IONA.

labourers without licence from the canon having charge of the fabric. These workmen were to have the same privileges of food and raiment as were enjoyed by the burgesses."[1]

In Scotland, the second era of pointed architecture continued

1 "Scottish Abbeys and Cathedrals."

until the middle of the sixteenth century. To this era belongs the cathedrals of Aberdeen, Edinburgh, Fortrose, and Iona, and the conventual churches of Melrose, Sweetheart, and St. Monan in Fife.

The glory of Melrose is somewhat tarnished now, but even yet this ancient abbey, over which the Wizard of the North has thrown his magic glamour, remains the most strikingly beautiful of all our Scottish abbeys. Not in the "pale moonlight" only, but in summer's sun and winter's storm it is still the choicest gem of Scottish masonry. Fig. 13, representing the interior of the Cathedral Church of St. Mary at Iona as it existed before certain recent improvements, may be fittingly taken as a very fair specimen of the Scottish masonry of this period. Some of the neighbouring chapels are said to be of Norman date, but the church itself was not erected until the middle of the thirteenth century. It is built in the form of a cross, and at the intersection of the nave and transept is surmounted by a square tower about 70 feet in height. The arches, as will be observed, are pointed, but the massive pillars still retain many of the Norman characteristics. Readers of Dr. Johnson's works will remember the interesting description which he gives of Iona in his "Tour in the Western Islands of Scotland." They will recollect his graphic picture of the sacred buildings, and of the ancient royal cemetery where sixty kings lie buried, and when bidding farewell to the famous island, "once the luminary of Caledonian regions," will re-echo the gruff old doctor's words, "To abstract the mind from all local emotion would be impossible were it endeavoured, and would be foolish if it were possible. Whatever withdraws us from the power of our senses, whatever makes the past, the distant, or the future predominate over the present, advances us in the dignity of thinking beings. Far from me and far from my friends be such frigid philosophy as may conduct us indifferent or unmoved over any ground which has been dignified by wisdom, bravery, or virtue. That man is little to be envied whose patriotism will not gain force upon the plains of Marathon, or whose piety would not grow warmer among the ruins of Iona."

Fig. 14 shows us the beautiful western window of Dunblane Abbey. Although in Gothic work the circular or wheel window is almost universally used, the oval window shown in our illustration will be granted even by the most careless observer to far surpass the former in natural beauty. "It is beautiful,"

says Mr. Ruskin, "simply because in its great contours it has the form of a forest leaf, and because in its decoration t has used nothing but forest leaves. The sharp and expressive moulding which surrounds it is a very interesting example of

FIG. 14.—WINDOW IN DUNBLANE ABBEY.[1]

one used to an enormous extent by the builders of the Early English Gothic, usually . . . composed of clusters of four sharp leaves each, originally produced by sculpturing the sides of four-sided pyramid, and afterwards brought more or less into a true image of leaves, but deriving all its beauty

[1] From Ruskin's "Lectures on Architecture and Painting": George Allen, London.

from the botanical form. In the present instance only two leaves are set in each cluster; and the architect has been determined that the naturalism should be perfect. For he was no common man who designed that Cathedral of Dunblane. I know not anything so perfect in its simplicity, and so beautiful, as far as it reaches, in all the Gothic with which I am acquainted. And just in proportion to his power of mind, that man was content to work under Nature's teaching; and instead of putting in a merely formal dog-tooth, as everybody else did at the time, he went down to the woody bank of the sweet river beneath the rocks on which he was building, and he took up a few of the fallen leaves that lay by it, and he set them in his arch side-by-side for ever. And, look—that he might show you he had done this—he has made them all of different sizes just as they lay; and that you might not by any chance miss noticing the variety, he has put a great broad one at the top, and then a little one turned the wrong way next to it, so that you must be blind indeed if you do not understand his meaning. And the healthy change and playfulness of this just does in the stonework what it does on the tree-boughs, and is a perpetual refreshment and invigoration; so that however long you gaze at this simple ornament—and none can be simpler, a village mason could carve it all round the window in a few hours—you never weary of it, it seems always new."

It has been frequently remarked that no man knows the names of the builders of our greatest cathedrals. Month after month and year after year they laboured patiently with hand and with brain, rearing in a cold and barren land those stately edifices of medieval masonry. Artisan and ecclesiastic worked with patient skill, each at their own separate arts. Did not the Grey Friars of Aberdeen wield the chisel and mallet, and carve with skilful hands many of the stones which the builders of their church required? And does not the great glory of King's College, Aberdeen, consist in the gorgeous and delicate wood-carvings—canopied stalls and traceried panels—wrought in great part by patient fingers of medieval monks? Was it not said of this delicate carving "There is no wood-work in Scotland capable of a moment's comparison with the stalls of King's College, nor will any English specimens rival them"?[1]

But the names alike of monk and artisan have passed into oblivion. Few indeed are the Scottish masons whose names

[1] Billings' "Antiquities."

are preserved in history. Gilbert de Mornia, Archdeacon of Murray, designed a famous church at Dornoch, and "Master Gregory, the mason," is mentioned as having built the Cathedral at Elgin. "Master Robert, the mason," built Dunkeld Cathedral; whilst in an old cemetery near Holyrood church lies the body of one Alexander Milne, whose ancestors were for many years "master masons to the King." On his tombstone is written :—

"Here is buried a worthy man and an ingenious mason, Alexander Milne, 20th February, 1643."

To this is added the following verse :—

> "What Myron or Appelles could have done
> In brass or paintry, that could he in stone;
> But thretty years he lived."

But, alas! it has to be recorded that many of the choicest bits of Scottish masonry, which Myron or Appelles scarce could rival in "brass or paintry," have long ago disappeared. The ruinous wars of the Succession brought devastation to many border abbeys, but it was reserved to Henry VIII., "Defender of the Faith!" to strike the most ruthless blows at those medieval buildings. "If you wish to drive the rooks away you must pull down the nests," said he—a saying, by-the-bye, often inaccurately attributed to Knox—and, acting in this spirit, he sent north an army to raze to the ground the abbeys and monasteries of Scotland. Concerning St. Andrew's, he commanded that it should be utterly devastated, "so that the upper stone may be the nether, and not one stick stand by another, sparing no creature alive within the same." Fortunately, at this time St. Andrew's and Arbroath escaped scatheless, but Holyrood, Melrose, Kelso, Dryburgh, Newbattle, Eccles, Haddington, and many a famous church besides, were given to the flames. Knox and the earlier reformers were guilty of fewer excesses than is popularly attributed to them. True, there is a certain savage glee in the Scottish reformer's tones when he tells of the destruction of the "auld stock image." One of the populace, he says, "took the idol by the heels, and dadding his head to the street, left Dagon without head or hands." But against the ruthless destruction of churches Knox sternly set his face, denouncing the vengeance of God on "the merciless devourers of the patrimony of the kirk," and urging the State maintenance of all the cathedrals, abbeys, and churches which were then used as parish "kirks."

As the years passed on, however, this commendable reserve

was sometimes broken down. In the year 1640, for example, the "Master of Forbes," with the consent of the General Assembly, "caused ane mason to strike out Christ's arms in hewen wark on ilk end of Bishop Gavin Dunbar's tomb (in St. Machar Cathedral, Aberdeen), and siclike chisel out the name of Jesus drawn cipher-wise I. H. S. out of the timber-wall on the fore side of Machar aile, anent the consistory door; the crucifix on the old town cross dung down; the crucifix on the new town cross closed up, being loath to break the stone; the crucifix on the west end of St. Nicholas Kirk in New Aberdeen dung down, whilk was never troubled before."

Even the iconoclastic zeal of the Covenanters, who cast the monuments of Iona into the sea and wrecked the statuary of Melrose Abbey, was checked by a certain national pride, which spared many of the finer specimens of Scottish masonry. But no such scruples kept in check the fanatical fury of Cromwell's alien host. "They stabled their steeds in the parish churches," says Dr. Robertson, "and made cathedrals and abbeys their quarries for building forts, over which they planted the banner of Emmanuel." Among others, St. Machar Cathedral, Aberdeen, suffered much at the hands of Cromwell's incendiaries. In order to find materials to erect fortifications at Castle Hill, stones were transported from the choir and chancel, and also from the adjoining bishop's house. The removal of so much masonry in course of time weakened the foundations of the great tower, and, just as preparations were being made to support it by means of but tresses, it fell to the ground with a tremendous crash, wrecking many ancient monuments, and crushing the transepts in its fall.

But even those buildings which were spared by the iconoclasts were not infrequently ruined by neglect and decay, and ultimately utilised as building materials for erections of lesser worth. The tower of Elgin Cathedral fell early in the seventeenth century, transforming that once magnificent edifice into a mere ruin.

Nor were the churches built to take their places of such a style as to do honour to the masons of Scotland. "At this time," says Pennant, "in many parts of Scotland our Lord seems still to be worshipped in a stable, and often in a very wretched one; many of the churches are thatched with heath, and in some places are in such bad repair as to be half open at the top." And many years came and went before the art of masonry renewed its youth in Scotland.

Fig. 15 shows us the arched canopy of the ruined altar-tomb of Bishop Gavin Dunbar, already referred to. In its original state the tomb must have been a remarkable piece of workmanship, displaying all the characteristic beauties of decorated

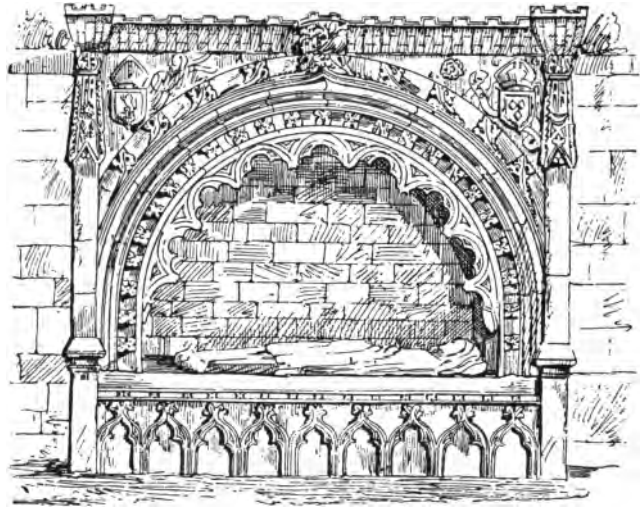


FIG. 15.—TOMB OF BISHOP GAVIN DUNBAR. (From "Destruction of the Religious Houses of Aberdeen.")

Gothic masonry. Time and again, however, it was attacked by reformers, who, in the excess of their zeal, spared not even the last resting-place of that good and worthy bishop who left behind him so many lasting monuments to testify to his love for the common weal.

Chapter VII.—Medieval Masons' Guild.

No investigation of the Art of Masonry in Britain would be complete that did not deal, however briefly, with the social life and customs of those by-gone artisans. During recent years, many able scholars have traced from half-forgotten documents the story of our medieval trade guilds, while prying, and perhaps too credulous antiquaries have attempted to trace a historical connection between the masons' associations of ancient Egypt, India, Rome, and Greece, and those of modern Europe. The theory is a pleasing and a possible one, but it lacks historical confirmation. Certain it is, that the masons' associations of these different lands, although separated from one another by thousands of years in point of time, have many features in common. It seems to us, however, that this may probably be due quite as much to a similarity in social life as to any actual historical connection. In every phase of primitive social life, the co-operative form of industry seems to obtain. We find it to-day in the *artels* of Russia, with which the whole of working-class life in that vast empire is honeycombed. When a railway and the wooden stations along with it have to be built, the contractor, says Prince Kropotkin, "treats not with individual workmen, but with *artels* (or gangs of from 50 to 250 men) of navvies and of carpenters. . . . Once the work has been undertaken by a gang, the contractor has nothing to do with the distribution of the earnings. These industrial *artels*," he adds, "cover the whole of the working part of the Russian nation."

It was in like manner that the masons' associations of ancient Greece and Rome and of medieval Europe carried out their many undertakings.

First of all, however, it will be necessary to make a rapid survey of the distribution of labour associations in ancient and medieval days.

All over Asia Minor traces of unions of the building trades appear. In Pergamos they were organised into guilds of bricklayers, masons and architects, with a full equipment of officers and men. Ancient inscriptions prove that flourishing

unions of the building trades existed in Cyprus[1] in the days of Christ and of Adrian. Similar scraps of "history in stone" tell us that in the early years of Christianity strong unions of masons and carpenters existed in Antioch, the scene of the labours of the Apostle Paul. It was there that M. Perrot found the Christian cross and symbols of mason's tools chiselled on a mausoleum, the inscription on which showed that it was the burial ground for a whole union of masons.

In Greece and Italy unionism flourished for many ages. Under the laws of Solon in Greece, and during the reign of Numa Pompilius in Rome, trade unionism was a state institution. "These associations," says Cicero, "were innumerable in all Italy." In the building trades the architects, masons and carpenters contracted together conjointly to do the work agreed on by the Government. It was not until the year 58 B.C. that "conspiracy laws" restricting the powers of those labour associations were put in force in the Roman empire. A relentless campaign was instituted against them—a campaign that continued with envenomed bitterness for nearly four centuries.

At the outset the unions legalised their position (just as the trade unions of Britain did in the early years of last century) by organising themselves under the guise of burial societies and religious associations. A few excerpts from the rules of one of those unions of 2,000 years ago may, perhaps, prove interesting to workmen of to-day. It is a translation of the rules of a Roman society written on the inside of a four-columned pillar.

"Whatsoever is favourable, happy and healthful for the Emperors Trajan, Adrian and the whole House of Cæsars will also be good for us and our society, and we should perform well and industriously our duty that we may honestly reach the end. So ought we universally to agree that we may grow old in union.

"O thou who wouldst bring initiates into this union read well these rules that thou leavest no controversy with thy heirs.

"LAW OF THE UNION.

"Be it ordered in presence of all men, that whosoever may desire to join this union shall give to the treasurer his address, an initiation fee of eight shillings, and a flagon of good wine,

[1] It is interesting to note that at this time there was a strong union of agricultural labcurers in Cyprus.

and likewise two pence monthly. It is ordered that whosoever fails to settle dues continuously for months, remaining a member by grace, will not have the right of burial, even though he may have willed to the association his property. . . . Funeral benefit to be paid, ten shillings. . . . Should it be found that there was any deception, then as much as four-fold the amount shall be exacted as a fine by reason of such injustice. . . . Whosoever dies a member, being a slave, and his body unwillingly given up for sepulture by his master or mistress, who will not permit such burial, an imaginary funeral shall be held. . . . Be it ordered that wherever a slave

FIG. 16.

is set free by this union he shall contribute a flagon of good wine," etc.

But, as we have already remarked, the Roman College of Masons by no means limited its sphere of usefulness to those little deeds of fellowship. By means of lectures and demonstrations the younger members of the fraternity were instructed in mathematics, geometry, and practical science, while the industrial work of the trade was systematically organised.

When the Roman legions found their way to the shores of Britain, they naturally enough carried with them their labour guilds or unions, with all their characteristic associations. Fig. 16 gives ample proof of this. We have here a representation of the famous Chichester inscription referred to in an earlier chapter. This stone was discovered in

April, 1723, by some workmen who were engaged in digging the foundations of the Council Chamber in North Street, Chichester. It was buried about four feet underground with the face upwards, and unfortunately received some damage in the attempt to raise it. The reference to "Pudens son of Pudentinus" enables us to fix the date when this guild of Roman masons erected in Britain a temple to Neptune and Minerva, for it will be remembered that St. Paul, writing from Rome, sends greetings of Pudens and Claudia to Timothy (2 Tim. iv. 21).

As will be observed, the inscription is not quite complete, but experts have deciphered it as follows:—

INSCRIPTION.

NEPTUNO . ET . MINERVAE
TEMPLUM
PRO . SALVTE . DOMVS . DIVINAE
EXAVCTORITATE . TIB . CLAVD
COGIDVBNI . R . LEGAT . AGN . BRIT.
COLLEGIVM . FABROR . ET . QVI . IN . EO
A . SACRIS . D . S . D. DONANTE . AREAM
PVDENTE PVDENTINI . FIL.

TRANSLATION.

To Neptune and Minerva
This temple
For the welfare of the Imperial family
By the authority of Tiberius Claudius
Cogidubnus legate of Augustus in Britain
the Guild of Masons[1] and those in it
who minister in sacred things have at their
own cost dedicated.
The site being given by
Pudens son of Pudentinus.

We thus see that it was in the early years of the Christian era that trade unionism was introduced into the building trades

[1] It will be observed that we have translated the Latin phrase "Collegium Fabror" as "Guild of Masons." Some authorities, however, translate it as "Guild of Smiths." As a matter of fact, the word may be translated with equal accuracy in either way—faber meaning simply an artificer—a worker in hard materials—whether stone or iron. The phrase "Collegium Fabrorĭum," however, seems to be most frequently used by ancient writers to denote the guild or union of masons. For example, Pliny tells us that when the City of Nicodemia was burnt, he requested the Emperor Trajan to employ a "Collegium Fabrĭorum" to rebuild it, quite evidently referring by that phrase to a corporation of masons and stonecutters. We have therefore adhered to the translation of the phrase as given by Roger Gale, Mr. Dallaway, and other distinguished scholars.

of Britain. Whether, as some claim, these labour guilds survived in remote quarters of England through the desolating wars of the Saxon era is doubtful. Far more probable is it that with the fall of the Roman Empire these guilds migrated to Lombardy, Gaul, and Germany, and were subsequently re-introduced into Britain when the medieval ecclesiastics sent over to the Continent for masons "to build churches after the Roman manner." Constantinople, too, in those days was a stronghold of masonic skill. Muller says that after the fall of Rome "Constantinople was regarded as the centre of mechanical and artistic skill, and a knowledge of the arts radiated from it to distant countries."

FIG. 17.—ETRUSCAN CAPITAL FOUND AT TOSCANELIA. (Probable date of execution 600 or 700 B.C.)

At Gruten, and also at Spon, old inscriptions still exist, which show that masons' guilds, ruled and officered in the Roman fashion existed there at a very early date, while, as the learned Dr. Lujo Brenato remarks[1]: —"The organisation of the gilds was in the eighth, ninth, and tenth centuries not only completed and probably already widely extended among the Anglo-Saxons, but even recognised, and their ordinances imitated or at least sanctioned in legislation. The gilds enjoyed already such authority in England that their agreements bound even non-members, and town constitutions were already developing themselves from them."

It is, however, from Continental sources that we obtain our most valuable information concerning the organisation and history of the medieval masons' guild, and so we shall first of all note briefly their development and progress in other lands.

[1] In "The History and Development of Gilds."

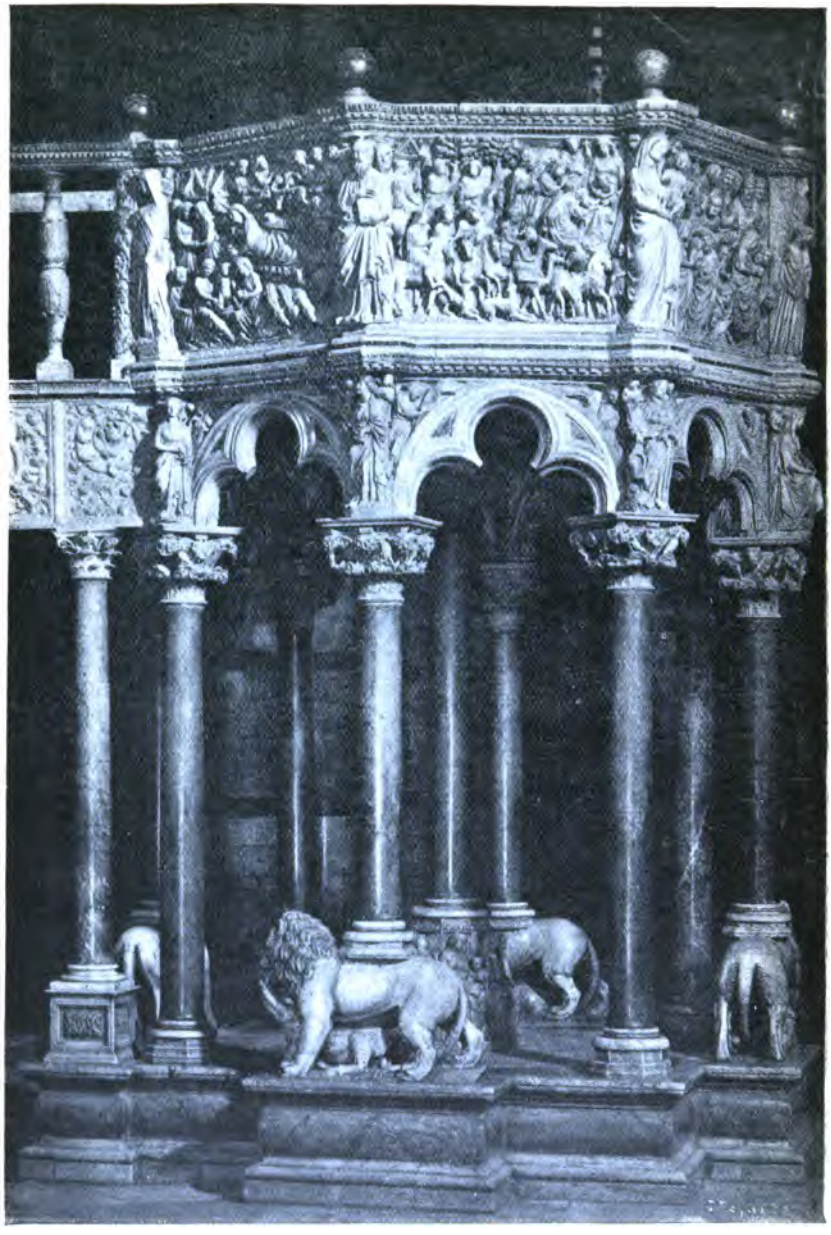


FIG. 18.—PULPIT OF WHITE MARBLE IN THE CATHEDRAL OF SIENA. (It is a work of the early Fourteenth Century, and was mainly executed by Nicholas of Pisa.)

When the grandeur of Rome had vanished, the horde of barbarians which overran Italy waged a bitter war against the collegia, suppressing them ruthlessly and inflicting terrible penalties on all connected with them. Driven hither and thither into different parts of Europe, those guilds of artisans formed the usual lodges wherever they went, carrying with them to many lands a knowledge of art and science. Quatrenal de Quincy in his "Dictionary of Architecture" says of those wandering bands of artisans: "these men were both designers and executors, architects and mosaicists. To them may be attributed the renaissance of art and its propagation in southern countries, where it marched with Christianity. Certain it is that we owe to them that the heritage of antique ages was not entirely lost, and it is only by their traditions and imitations that the art of building was kept alive, producing work which we still admire, and which becomes surprising when we think of the utter ignorance of all science in those dark ages."

The primitive masons' guild included not only those engaged in actual building work, but also carpenters, painters, workers in gold and iron, and representatives of all the decorative arts. Indeed, as Leader Scott remarks in her "Cathedral Builders" we frequently find the same man "building, designing, sculpturing, painting, and even working in gold or iron and seemingly equally good in all, so that the training of the laborerium must have been especially comprehensive."

It was not until 1355 that the Sienese painters seceded from the local masonic guild—for by that time local lodges had been formed at Venice, Siena, Florence and elsewhere—and formed a separate association under the patronage of St. Luke. Thirty years later the Florentine painters followed suit, establishing the art of painting independent of church decoration, and calling themselves the "Confraternita dei Pittori." It is from those local lodges at Siena and Venice that we obtain the fullest account of the intricate organisation of a medieval masons' guild. Leader Scott, in her work already referred to, gives interesting extracts (not hitherto published in English) from the documents of those lodges.

From these we find that the work of the guild was organised and carried out in a thoroughly business-like fashion. The organisation consisted of three different branches: First, the school where apprentices were trained in painting,

sculpture and architecture. The right of admission to this school was in great part hereditary, masons' sons being "members by heritage," while outside pupils were only admitted under very severe and stringent conditions. Secondly, there was the laborerium, or workshop, where all the work was cut up, and stones and columns carved. Thirdly, there was the "Opera," "Fabbriceria," or office of administration, which, remarks the writer, "formed the link between the guild and its patrons." The "opera" was indeed the ruling or administrative council of the guild, and was composed of two master-masons and two prominent citizens, all of whom were elected annually. Presiding over these was a "Superiore"—in most cases the ruling prince. It was this "opera" or council of works that undertook all commissions and contracts on behalf of the guild, and which was responsible for all expenses connected with such undertakings. Between the "opera" and laborerium was a responsible officer called the Provveditore, whose duties were to see that the masters and workmen carried out the orders of the administrative council. There were also a treasurer, secretary and two arbiters.

FIG. 19.—FROM THE REMAINS OF THE CHURCH OF ST. PETER AND MARCELLIN, SEELINGENSTADT, GERMANY (usually ascribed to the thirteenth century.)

In the workrooms of the guild there were also three different classes of workmen: (1) Apprentices or pupils; (2) "magistri fratelli" or in old Latin documents simply "fratres" or brethren of the guild; (3) "magistri of the guild"—fratres who had graduated in all the schools and colleges of the union, and were capable of designing and supervising every detail of construction.

The methods by which the guild secured the highest possible standard of excellence in design is highly instructive. At the outset, of course, a consultation was held between the "opera" and its patron monks, who may have been desirous

of building a church or cathedral. Immediately the actual requirements of the building were agreed on, the council of works invited designs from all the master-masons in the guild. A council of masters then considered carefully every plan sent in, the successful competitor being empowered to carry out the undertaking. But even then, of course, the master-mason was still but the employee of the guild, receiving wages—although on a slightly higher scale—along with the other workmen. In other instances, where a contract price was agreed upon, that price was settled, not on the competitive principle, but by a special council of the master-masons of the guild.

But even when the general design was agreed upon, the details of the work were by no means left to the "magistri" in charge. Every door and every window, indeed, nearly every separate portion of the building was made the subject of a special competition—open to any mason who cared to submit his design to the council of works. These designs or models in wood, as the case might be, were then examined by the council of masters and that which was deemed of highest excellence accepted for the building in course of construction. It will thus be seen that, as Leader Scott remarks: "We can no longer say that Maitani built Siena cathedral, nor Arnolfo that of Florence, nor assert that Milan cathedral was the work of a German architect. They were all the joint labour of the same brotherhood of artists, the plan made by the first arch-master being discussed and modified a score of times before completion."[1]

How those ancient guilds fell from their high estate we shall consider in another place; meanwhile we shall examine the rules and bye-laws of another mediæval association—the "Constitution of the Masons of Strasburg" (1459). These bye-laws, it will be observed, not only bear a close resemblance to the Roman laws already quoted, but even in some respects are decidedly similar to those that govern the modern trade union. Strasburg, which is doubtless the oldest of the German lodges, was founded from France in the thirteenth century, and in the fifteenth century was made supreme lodge in Germany, with authority over all the others. The "constitution" of 1459 is, as the document itself tells us, "undoubtedly based on the ancient customs and laws of the craft." It was "discussed and agreed on at two meetings of masters and

[1] "The Cathedral Builders."

fellows, held in the manner of a chapter, the first at Regensburg, on Easter Day, 1459, and the second shortly afterwards at Strasburg, where they were definitely adopted and

FIG. 20.—ILLUSTRATION OF THE BEAUTIFUL PORCH OF CHARTRES CATHEDRAL, IN FRANCE. (This magnificent building belongs to the eleventh century, and has been fittingly described as one of the grandest works of the age.)

promulgated." The "constitution" contains upwards of thirty rules and bye-laws, of which, however, we can quote but the most striking and characteristic.

"In the name of the Father, and of the Son, and of the Holy

Ghost, and of our Gracious Mother Mary, and also of Her blessed servants, the holy four crowned martyrs of everlasting memory; considering that true friendship, unanimity, and obedience are the foundation of all good; therefore, and for the general advantage and free will of all princes, nobles, lords, cities, chapters, and convents, who may desire at this time or in future to build churches, choirs, or other great works of stone and edifices; that they may be better provided and supplied, and also for the benefit and requirements of the masters and fellows of the whole craft of masonry, and more especially to avoid in future, between those in the craft, dissensions, differences, costs and damages, by which irregular acts many masters have suffered grievously, contrary to the good customs and ancient usages, maintained and practised in good faith by the seniors and patrons of the craft in ancient times. . . . We, masters and fellows, all of the same craft, congregated in chapters at Spires at Strasburg . . . in name and on behalf of ourselves and of all other masters and fellows of our whole common craft, have renewed and revised these ancient usages and kindly and affably agreed upon these statutes and fraternity; and having by common consent drawn up the same, have also vowed and promised, for ourselves and for all our successors, to keep them faithfully as hereafter stands writ:"

RULE 2.—Whoever of his own free will desires to enter into this fraternity, according to the regulation as hereafter stands writ in this book, shall promise to keep all the points and articles, for then only can he be of our craft. Those shall be masters who can design and erect such costly edifices and works for the erection of which they are authorised and privileged, and shall not work with any other craft unless they choose to do so. Masters as well as fellows must conduct themselves honourably, and not infringe upon the rights of others, or they may be punished according to these statutes on the occasion of every such transgression.

From this rule it will be observed that the "master-masons" are not contractors for the works undertaken, but simply supervisers and architects on behalf of the associated workmen.

RULE 3.—Whatever regular works and buildings are now in progress of erection by journey-work . . . and according to custom have hitherto been finished by journey-work, such buildings and works shall be continued by journey-work and in no wise by task-work . . .

RULE 11.—Any master or fellow who shall take away from another master of the fraternity or craftsman a work on which he is engaged, or who shall endeavour to dispossess him of such work, clandestinely or openly, without the knowledge or consent of the master who has such work . . . he shall be called to account. No master or fellow shall keep fellowship with him, nor shall any fellow of the fraternity work for him, so long as he is engaged on the work which he has thus dishonestly acquired, nor until he has asked pardon and given satisfaction to him whom he has driven from his work, and shall also have been punished in the fraternity by the masters, as is ordained by these statutes.

RULE 13.—No workman, nor master, nor parlirer, nor fellow-craftsman, shall instruct anyone whosoever, who is not of our craft, in any part, if he has not in his day practised masonry.

RULE 14.—No craftsman nor master shall take money from a fellow for teaching or instructing him in anything belonging to masonry, nor shall any parlirer or fellow-craftsman instruct any one for money's sake; but if one wishes to instruct the other, they may do so mutually or for fraternal affection.

Rule 15 restricts the number of apprentices to five for every "master," or should that master have but one building on hand then he may employ only three apprentices. This rule also states that: "No craftsman or master shall be received into this fraternity who goes not yearly to the Holy Communion; or who keeps not Christian discipline, or who squanders his substance at play. . . . No craftsman nor master shall live in adultery while engaged in masonry, but if such an one will not desist therefrom, then shall no travelling fellow nor mason work in company with him, nor keep fellowship with him."

We may note in passing that in Britain, also, purity of life was insisted on amongst operative masons, although that "purity" was elastic enough to permit the keeping of concubines. In the "Constitution of Masonry" (MS. of the fifteenth century) it is commanded:—

> "Thou schal not ly by thy fellows' concubyne,
> No more thou wouldest he did by thyne."

Nevertheless, while concubinage was evidently permitted, the apprentice mason must always be of lawful birth, for Article 5 of this English "Constitution" begins:

> "The fyfthe artycul ys smythe good,
> So that the prentis be of lawful blood."

But to return to the Strasburg "Constitution," which is generally regarded as the original masons' charter.

Rule 18 enacts that "when a travelling fellow-craft desires to travel farther, he shall part from his master and from the lodge in such wise as to be indebted to no one, and that no one have any grievance against him as is meet and proper." Or in the phraseology of latter-day trade unionism, he must "leave with a clear card."

Rules 25 and 26 regulate the punishment, and if need be expulsion, of unworthy members of the fraternity—whether master or workman.

The entrance fee to the association was fixed at one florin, and afterwards each year four blapparts were to be paid (quarterly) "into the box of the fraternity."

Such was the constitution of the famous masons' guilds of medieval Europe, and such too was the constitution of those wandering bands of British artisans, who laid anew in our sea-girt isle the foundations of the art and craft of masonry. To obtain adequate information concerning those co-operative guilds of craftsmen, we have been compelled to go to Continental sources, but as we shall see in due course, masonry in Britain was for many generations organised on a similar basis.

Chapter VIII.—The Four Crowned Martyrs.

In the story of the "Holy Four Crowned Martyrs" of everlasting memory, referred to in the "Constitution of the Masons of Strasburg," we have an interesting legend, common alike to the masons of early Rome and of mediæval Europe. Those martyr masons lived in the Imperial city during the reign of Diocletian. Usually they are described as four brothers, although more probably they were simply members of the same guild of artisans. All were cunning artificers in stone, and their fame as masons spread through many lands, until it reached at last the ears of the great Emperor himself. And so he issued an edict commanding them to build a gorgeous temple for the worship of Æsculapius, and to carve a statue of that god of the healing art, and place it therein.

But those four Roman masons were seemingly numbered amongst the "common people" who gladly heard the loftier doctrines of the Christian faith. And so, to the Emperor's vain command they boldly answered, "Nay, but we are Christians. We cannot build a temple to false gods, nor shape images of wood or stone to ensnare the souls of others." Whereupon they were bound to four pillars, scourged with whips and cords, and cruelly tortured; but, in spite of brutal persecutions, they remained steadfast to their faith. Even before the horrors of a Roman Inquisition their spirits did not flinch. Then the Emperor, finding that all his arts of torture were unavailing, ordered them to be placed while still alive in leaden coffins, and cast into the Tiber.

But just as many generations later the reek of Scottish Patrick Hamilton infected everyone on whom it blew, so also the zeal of those Roman martyrs served but to strengthen the power of the new religion among the guilds of the Roman empire. Eventually, it would seem, the remains of the four martyrs were recovered, and in the time of St. Leo their relics were placed in four urns and deposited in the crypt of the church, which was built to their memory by the masons' guild in the time of Honorius.

In her "Sacred and Legendary Art," Mrs. Jameson tells us

FIG. 21.—ROCHESTER CATHEDRAL, WEST DOORWAY.

that on the road that leads from the Colosseum to the Lateran, "surmounting a heap of sand and ruins," we come to this church—the Church of the "Quattro Coronati," the four crowned brothers—crowned, that is to say, with the crown of martyrdom. "Here," adds Mrs. Jameson, "stands their church to witness to their conscientious piety and courage,

FIG. 22.—ORNAMENT FROM HOLYROOD.

and here it has stood for fourteen centuries. It is held in particular respect by the builders and stonecutters of Rome, who are the proprietors of the principal chapel in it, which is dedicated to St. Sylvester." The authoress of "Sacred and Legendary Art" further mentions that she has found traces of this legend not in Roman art alone, but in the old sculpture and stained glass of Germany, and in a curious old picture in Nuremberg. They can always be distinguished by the fact that they stand in a row, bearing palms, with crowns upon

their heads, and various implements of their craft—such as the rule, the square, the mallet and the chisel—at their feet. "In ancient art and sculpture," concludes Mrs. Jameson, "four different scenes from this legend are represented:

"1 They refuse to build the idolatrous temple; they are kneeling before the Emperor, holding their implements in their hands; six guards around.

"2 They are bound to four pillars and tortured.

"3 They are shut up in an iron cage and cast into the sea.

"4 They are lying together in a sarcophagus, with crowns upon their heads."

Their names are variously given as "Severus, Severianus, Carpophorus and Victorinus;" as "Claudius, Symphorianus, Castorius and Nicostratus"; and as "Claudius, Symphorianus, Nicostratus, Castorius and Simplicius"—five crowned brothers in the latter case.

This old Roman legend was a popular one amongst European masons of the middle ages. The four crowned martyrs were, indeed, the patron saints of the old masons' guilds in Germany and Italy. Heideloff mentions in his "Banhütten des Mittelalters" that the stone masons of Germany erected many altars to the "seligen vier gekronten." An altar was also erected at Siena and another at Venice by the masons' guild, and dedicated to their four martyred brethren. On the anniversary of their death a special Masonic festival was held.

In England, too, so early as the eleventh century the legend found a place in the "Sarum Missal," under date November 8th, while in later years their story was embodied in a masonic rhyme which shows that all the old traditions concerning the patron saints of the Continental guilds were carefully cherished by the operative masons of Britain. From that old rhyme we quote the following suggestive lines:—

"These holy martyrs four,
That were in this craft of great honour;
They were as good Masons as on earth shall go.
* * * * *
Who so well of their life will know,
By the book he may it learn
In the legends of the Saints,
The names of the Four Crowned Ones.
Their feast will be without denial
After All Hallows the eighth day."

Chapter IX. The Masons' "Luge" in Scotland.

ALTHOUGH in all the varied history of the Trade and Craft Guilds of Britain we can discover no details of the mediæval masons' lodge — or "luge," as our Scottish forefathers would have called it—so full and reliable in every respect as those we find concerning their German and Florentine contemporaries, nevertheless many illuminating glimpses of their social life may be obtained. During recent years, many a "quaint and curious volume of forgotten lore," compiled from the musty records of ancient burghs and scarcely less ancient kirks and cathedrals, has been published. From those old-world chronicles, one may gather many interesting facts concerning the masons of Britain, which, interpreted in the light of what we have learned from Continental sources, throw a flood of light on the mediæval mason's life.

Our first record in Scotland of the establishment of a Brotherhood of Masons dates from the reign of William the Lion, who in 1178 founded the great abbey of Aberbrothock, which he dedicated to Thomas à Becket. It was about the year 1190 that Bishop Jocelyn founded a Masons' Union in Scotland, and confirmed the rules of the fraternity. There, as in Italy during the same period, both masons and carpenters were united in one association, St. John being the patron saint of the British guilds. Indeed, in every land the "Beloved of the Master" was highly esteemed by the common people, but by the Brotherhood of Builders especially so. In many towns the Masons' Guild, proclaiming him as its patron saint, built an altar to his service and presented it to their fellow citizens.

In 1475, the Masons and Wrichts' Incorporation obtained an assignment from the Town Council of Edinburgh of the aisle and altar of St. John the Evangelist, in the ancient Church of St. Giles. In that year the "Council and Dene of Gild and deacons of the hale craftismen within the burgh . . . consentis and assignis to our lovit nychtbours the hale craftismen of the masounis and wrichtis within the said burgh, the ile and chapell of Sanct Jhone fre the auld hers of irne inwards als frely as it is ouris with all the fredomis, proffittis and escemantis thairto pertenand . . . and to their successors forever."

A century and a half later the same incorporation became possessed also of St. Mary's Chapel in Niddry Wynd.

In Aberdeen, too, an altar to St. John the Baptist was presented to the parish church by a master mason of the burgh, and so late as 23rd February, 1541, we find that the guild of masons and wrights looked upon that sacred shrine as a trust and heirloom of their craft. On that day "the provest, baillies and counsell present for the tyme, gaif, grantyt and consentyht and assignitt to the craftismen under wryten, that is to say, the wrychtis and masons of the said

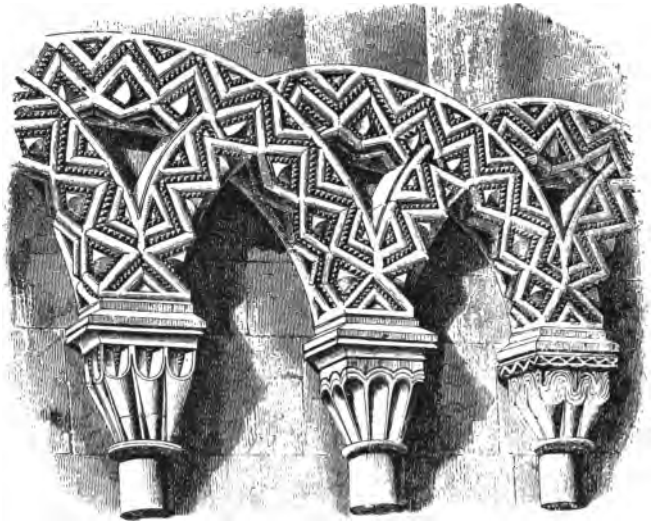


FIG. 23.—ARCHES IN KELSO ABBEY.

burgh, frely lycence to repair and byg thar altar callit Sanct John the Baptiste wythin the parroche kirk of Aberdeen, and to decoir the samyn in the maist honest manner, with all manner of accidents that may be had of the said craft in tyme cumminge, providing always that the gift of the said altar remaine with the toun nochtwithstanding this gift."—A shrewd, far-seeing folk, those old baillies of Bonaccord!

The rules for admission into the masons' guild of those days are unusually interesting.

In October, 1475, the following statutes for "ruling the crafts of masons and wrights to the honour of St. John" were drawn up and agreed to by the masons of Edinburgh.

"Each new mason on entry and admission to the town after certificate of proficiency by the craft masters, shall pay to the Altar of St. John, 13*s*. 4*d*. Scots.

"No master of the craft shall take an apprentice for less than seven years, and on entry shall pay to the Altar, 6*s*. 8*d*. Scots.

"Each apprentice, in case of disobedience, shall pay—

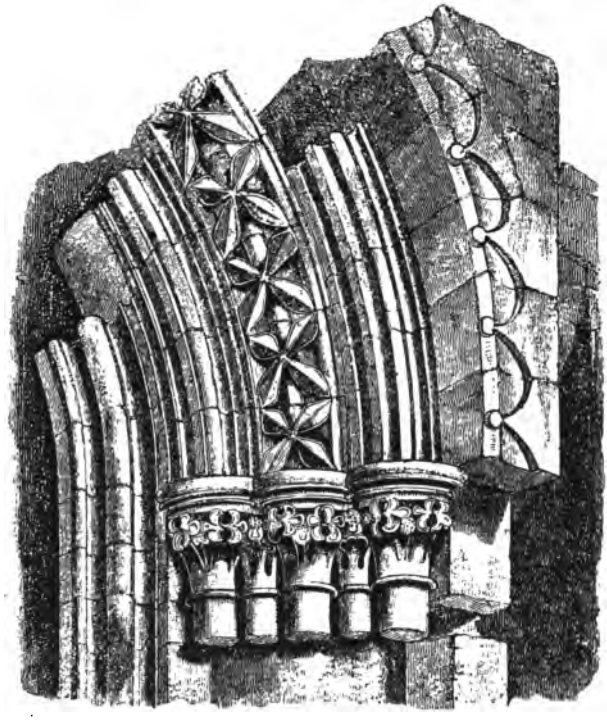


FIG. 24.—ORNAMENT FROM DOORWAY, ELGIN CATHEDRAL.

for the first fault, one pound of wax to the Altar, for the second, two pounds of wax, and for the third fault he shall be punished by the provost and baillies.

"Each apprentice, at the expiration of his term shall be examined by the craft master, and in case of proficiency shall be entered as a fellow of the craft and pay to the Altar 6*s*. 8*d*. Scots."[1]

[1] From "The Master Masons to the Crown of Scotland."

But the craft masters referred to had other duties than those. The minute concerning their appointment records that "It is thocht expedient that thair be chosin four persons of the best and the worthiest of the two craftis—that is to say two masonis and two wrychtis—that sall be sworne, quhilkis sall serch and see all wirkis that the craftismen wirks and that it be lelely and treulie done be all biggars." In case of disputes amongst the craftsmen, the masters were empowered to "caus the scaith and wrang to be amendit, and gif they cannocht, the provost and baillies to gar it be amendit."

Scarcely eight years later, we find the masons of Aberdeen framing an equally stringent set of rules for the government of their "luge." On 27th June, 1483, "it was rehersit" to the Town Council of Aberdeen "be David Menzes, master of the kirk wark that it was appoyntit, decretit in Lenton last . . . betwixt the masons of the luge, that is to say Richard Ancram, Andro Murray, James of Barry, Johne Russell, Johne of Kyndrummy, and Matho Wrycht, efter that thai war frendit and accordit upon certane debate and controversy betwixt thaime, that gif ony tym to cum thairefter ony of thaim offendit til uther, that war fundit in a faute, for the first faute he suld gif xx shillings to Sanct Nicholace werk,[1] and for the second faute, gif thai be fautit agane xL Shillings and gif thai fautit the third time to be excluded out of the luge as a common forfautour.

Ye quhilk ordinance ye masownis forsaidis has ratifiit and approuit this samyn day before the aldermen and consel."

It will be remembered that rules precisely similar, providing for the expulsion from the guild of rebellious members, were passed by the parent masons' lodge at Strasburg. And those rules were no dead letter to the members of the order, for during the erection of St. Nicholas Church one of the master masons was, at the instigation of the guild, dismissed by the Town Council from his post of honour, and another elected in his stead. At that time, of course, the master mason simply supervised the work on behalf of the community—and not infrequently he held his post for life. His duties are admirably summarised in the agreement entered into between "Maistre Johne Gray, mason," and the Town Council of Aberdeen, at the "biggin of Sanct Nicholas werk."

On 4th May, 1484 "Maistre Johne Gray, mason, was reseivit be the Aldermen, Baillies, Counsale and Communite

---

1 St. Nicholas Church was at this time being built by the masons of the "luge."

of the Burgh of Aberdeen in maistre of wark to the biggin of Sanct Nicholas wark, whilk has taken upon him to be continuale labour and diligent for the up-bringing of the same wark, and to do al car concerning the same wark that accordis til a maistre of wark baith in labouring of his awyn person, devysing, beseying and ourseying of utheris masons and warkmen that sall be under him, for al the dais of his lif to the finale completing and ending of the said wark, at all his possibilitie and power the best wyse that he can. For the quhilkis thing is to be done, he has in presence of the Counsale. Baillies and Communite forsaidis given the gret bodely aith to be lele and trew to the said wark for all the dais of his life, until the completing and ending of the same.

And the said maister of wark sall labour himself and gar utheris masons and warkmen under him labour daily and continually efter the Act of Parliament made thairupon."

For the performance of all those duties John Gray received a yearly fee of "twenty poundis and fyve merkis." Compared with his payment, the yearly fee of an ordinary mason was a rather small one, for in the following year we find "Richard Ancrum feit for a year for 20 merkis."[1]

This, indeed, seems to have been about the yearly standard rate at that time, for on 22nd November, 1498, "Nichol Masone and David Wricht oblist them be the fathis of thar bodiis, the gret aithe sworne, to remane at Sanct Nicholes werk, in the luge and uteuch, there to mak daily gude seruice, . . . and not to pass frae the saide werk withoot leif of the Aldermen, Consale, and Master of the werk." For the quhilk gude seruice to be done Nichol received twenty-ane merkis annually, and Dauid, auchtene merkis.

But it was, perhaps, amongst the sett-makers — "cassay-makars" they were called then—that the most peculiar method of payment obtained. On 2nd June, 1539, "the Provest and Balzes consentis and ordanis wyth the awse of the hayll towne, that thair be ane cassay-makar feyit and conducit for daly wagis, to mak, reform, and mend all the streyttes and calsayis of the sayd burght and to gett ane dayse mett of everilk nychtbour thair, tyme about sa lang as he beis makang the said calsayis, with ane pennie of everilk house halder within this burght to be given corresponding to ilk day to his wages."

Rather a gaberlunzie kind of life, the latter day sett-maker would be apt to think. But perhaps this method of payment

[1] A merk is equivalent to 13*s*. 4*d*. Scots.

was confined to the canny Scots of Bonaccord, for we find that about the same period the Town Council of Edinburgh engaged two "calsay-makers" from France on somewhat more up-to-date terms. In their agreement it was specified that "thai oblissis thameselves till mak and big the calsay of the toun, and shall wyn the stanys thairof in the querrel and sall dres thame and lay thame in the calsay; and the gude toun sall furnis sand and carye the stanys to the calsay, and to mak the red and carye the samyn away." For this

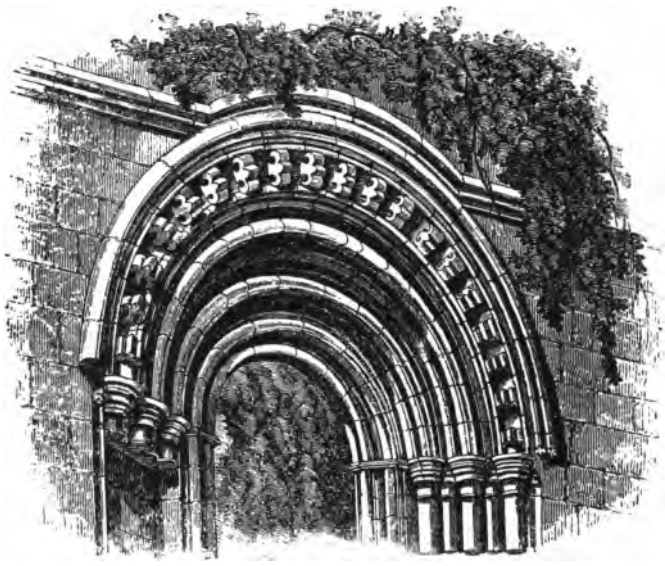


FIG. 25.—DOORWAY, PLUSCARDEN ABBEY.

work the "calsay-makers" were to receive "for ilk Scottis rude, that is to say, six elms of length and six elms of breedth, threttie shillingis Scottis, and this threttie shillingis is to be paid oulklie, or als sone as thai have wrocht and made the same rude."

About a century later we find that the Town Council of Perth paid to "John Bryce, masone, for hewin and layin ane ruid of pavement" the sum of £24.

When one remembers the convivial habits of those days, it is scarcely surprising to learn that "drink to the masons" sometimes forms a tell-tale item in old building-trade accounts.

So late as the year 1628 we find such items chronicled. In the accounts relating to the building of Heriot's Hospital in Edinburgh, there is an amusing reference to this at the laying of the foundation stone of that institution (1st July, 1628). "Freedom and whisky gang thegether," exclaims Burns, and, if one may judge from this minute, religion and whisky seem to have been an equally popular blend. "In the name of God we began to lay the groundstane on Tyisday efter the sermon, and I gave in drink silver to the Maister-maisone and his companiones at the founding of the work twa rosnobillis" —that is to say, £21 6*s.* 8*d.* But the drink money seems to

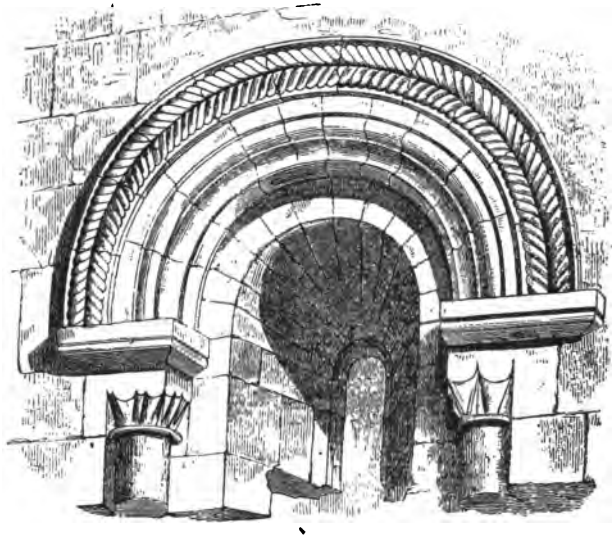


FIG. 26.—WINDOW IN LEUCHARS CHURCH.

have been unfairly divided, the masons claiming the lion's share of the spoil. At this the "barrow-men" rebelled, and the result was that an additional sum of £6 13*s.* 4*d.* was distributed in drink-money amongst the labourers.

Again on 17th February, 1617, we find this item in the municipal accounts of the Fair City, for the removal and re-erection of the ancient market cross of Perth. *Item:* "This day when the cross was foundit, given to the master masons among them, £5 6*s.* 8*d.*" . . . *Item:* "To the rest of the masons and workmen, £3."

In the accounts for the year 1516, relating to the building of Dunkeld Bridge, among such interesting items as "2,948 loads of sand at ½*d.* per load," "for a pint and a half of tar to lessen the heat of the bushes of the wheels and to heal the ulcers of the wounded horses, 1 shilling." We also note "To Alaster Smyth the smith, for work, 138 lumpis at 8 pennies each, *and drink money* £4 1*s.* 0*d.*" "Paid to the masonis going to the quarry on various occasions for be aisleyr-dressin—in drink-money, 2 shillings."

One of the latest references to the work of the masons' guild in Scotland is contained in a minute of a meeting of the Perth Guild, held on the 24th December, 1658. In this record is embodied the traditional history of Scottish masonry: "To all and sundrie persones whom their presenttis doe belong . . . Maister Frieman and Fellow Crafts masons residing within the burgh of Perth. That whair for as meikle as we and our predecessors have and haid from the Temple of Temples building on this earth, ane uniform communitie and unione throughout the whole world, from which Temple proceided one in Kilwinning, in this our nation of Scotland, and from that in Kilwinning many moe within this kingdome, of which thare proceded the Abbacie and Lodge of Scone built by men of art and architecture, where they placed that lodge as the second lodge within the nation, which is now past memory of many generations, and was appointed by the Kings of Scotland for the time, both at Scone and the decayed city of Bertha, where it stood, and now at Perth, heid burgh of the Sherrifdom thereof." After setting forth in detail the works of John Mylne, who by reason of his "skill and airt," was appointed to be the "King's Majesties Maister Mason and Maister of the said Lodge . . . so that the Lodge is the most famous lodge within this kingdome," the record then proceeds to give the usual rules for the regulation of the trade, and of the master journeymen and apprentices connected therewith.

For our illustrations, showing the work of the masons' "luge" in Scotland, we are mainly indebted to Mr. Billing's admirably illustrated volumes on "The Ecclesiastical and Baronial Antiquities of Scotland."

Chapter X. The Dawn of the Renaissance.

How the masons' guilds of Britain and of mediæval Europe fell from their high estate, and how the Gothic architecture which they had brought to so high a pitch of perfection gave place to the classic architecture of the Renaissance, must now be briefly told.

> "The old order changeth, giving place to new;
> And God fulfils Himself in many ways
> Lest one good custom should corrupt the world."

Thus sang the dead laureate, and in the passing of the old order of art and industry in the fifteenth century, the world, ever advancing, saw a gradual change from the old customs of guild life and associated industry into the new life of the Renaissance. The guilds, from being co-operative bands of artisans, gradually degenerated into rigid trade monopolies that threatened eventually to defeat their broader aim.

Membership in the guild became more and more a hereditary privilege, while from the buildings which they erected the stamp of genius seemed to have fled.

Even the hand of the sculptor seemed to have lost its cunning, and practical masonry to have reached the sere and yellow leaf. But on the ruins of the old system the new was being built. To fully comprehend the significance of this "re-birth" of the arts, it will be necessary to take a somewhat wider survey than that which can be obtained by following the development of masonry in Britain alone.

Brunelleschi, the first great architect of the Renaissance, and in whose work the living genius of Greece again burst into blossom, entered on his great career towards the end of the fourteenth century. Born in 1377, at Florence, he very early in life developed an ardent love for architecture. So far as we have been able to learn, he was never a member of the masons' guild, although his father in his early life apprenticed him to the guild of goldsmiths. Preferring rather, however, to study the ancient examples of masonic skill, he set out of his own accord to investigate the great buildings of other days. So closely did he study these ruins of an older

time, he was, it was said, capable of reconstructing, in his own imagination, the imperial city as it existed before the great desolation. But another ambition, loftier even than his zeal for antiquarian lore, animated the young craftsman. The great church of Santa Maria del Fiore, at Florence, was then unfinished. The four arms of the cross forming the church were built, but it was necessary to unite them by means of a cupola. It was at this juncture that Brunelleschi began to take an active interest in the work, and henceforth his story is as entrancing as any in the annals of masonry.

A conference of all the master masons in the country was held to devise a method of overcoming their difficulties, for the supports of the cupola formed an octagon of unusually large diameter, and there were many who held that it was impossible to adapt and construct a cupola on the immense scale required by the proportions of the church. Not so Brunelleschi. He had studied closely the construction of the temple of Minerva Medica, and confidently told the conference of master masons and patrons of the guild that he had solved the architectural problem. But the budding architect was, in modern parlance, a "non-unionist." The rigid guild of monopolists into which the Continental associations had then sunk scoffed at his pretensions, and called on him to produce the plans of his wonderful cupola. He declined, but reiterated the statement that, though they called in council all the "magisters" of France and Germany, none of them would be able to make a dome equal to the one he would make. And there, for a time, communications were closed.

On 19th August, 1418, the Opera, as the custom was, announced a prize of 200 gold florins for the best model of a dome suitable for the famous church. Many ingenious designs were received, and eventually a model by Brunelleschi, Donatello, and Namni di Banco was awarded the prize. Now, as will be remembered, the winning of this prize by Brunelleschi entitled him also by the rules of the guild to act as master-mason during the construction of the dome. But the successful designer was on this occasion a non-unionist, and altogether without the charmed circle of the guild. Such a one, the Opera decided, could not fittingly superintend the work. At length what seemed to be a way out of the difficulty was discovered. He was appointed, along with Ghiberti, to supervise the work, but even then he was not "caput magister," one Baptista di Antonio, a member of the lodge, being so appointed. Ghiberti and Brunelleschi

received from the Opera a salary of 3 florins monthly. The placing of Ghiberti on an equal footing with himself was, however, a dire insult to this proud-spirited Florentine. Day after day he endeavoured to heap ridicule on his associate, and on the whole band of "maestranze." Eventually, by a

FIG. 27.—ST. MARTIN'S CROSS.

cunning move, he determined to prove that the masonic guild had no monopoly of genius. The work was at the time being pushed forward rapidly. Soon it reached a stage at which the cunning brain and shrewd foresight of the chief designer were in constant requisition. Now, thought Brunelleschi, is the time to assert my power. Late in the evening he retired to rest as usual. When morning came, however, the leader and

organiser of the work lay drowsily in bed. The forenoon was not far spent when an unusual stillness amongst the masons told that matters were not progressing with their wonted smoothness. At different parts of the building groups of workmen stood idly by evidently in some dire dilemma. Ghiberti confessed his inability to assist them, and eventually a deputation was sent to Brunelleschi's house to make enquiries as to the next steps necessary in the erection of the dome.

"Ask Ghiberti," said Brunelleschi, drowsily, when they told him of their difficulties.

"But Ghiberti says he doesn't know."

"Doesn't know! Ghiberti is a magister; he is paid three florins monthly, just as I am. Ask him again," said Brunelleschi, and he quietly turned himself on his other side.

"But," reiterated the workmen, "Ghiberti says he can't manage without you."

"Probably not," said Brunelleschi, drily, "but I can manage very well without Ghiberti."

The deputation withdrew, and again consulted their fellow member and magister, who had then full charge of the work. But it was all of no avail. Ghiberti, left to himself, was utterly helpless. To curtail our narrative somewhat, the result of it all was that Brunelleschi, still feigning illness, lay snugly in bed—the whole work at a complete standstill—until the Opera decided to remove Ghiberti from his post of honour and to appoint Brunelleschi sole supervisor of the building, at a salary which was shortly afterwards raised to 100 gold florins per annum.

But the quarrel between the masons' guild and the first Renaissance architect was by no means over. When the commission was given to Brunelleschi the union felt—not unnaturally, perhaps—that it was altogether undesirable that the caput magister of the dome should be a non-member of the fraternity. Consequently, they matriculated him into the guild. But that by no means solved the difficulty. Brunelleschi was evidently of the opinion that one need be no freemason in order to be able to build a church. He ignored his membership, and never paid his fees. Trade guilds had drastic methods of dealing with non-paying members in those days. The master of the labrorium sued him for debt, and he was cast into prison. Again—without the guiding hand of the master—building operations came to a complete standstill.

The Opera was summoned at the behest of the city patrons, and on 20th August, 1434, a stormy meeting was held, at which

the civic patrons proved too strong for the magistri. It was decided, not only that Brunelleschi should be liberated, but that one of the magistri should be imprisoned in his stead, on the ground that the guild had hindered the execution of public work!

This was the last of the conflict between the masons' guild and the first architect of the Renaissance. He was afterwards appointed chief architect to the guild in the city of Florence.

FIG. 28.—BANQUETING-HOUSE, BY INIGO JONES.

He did not, it is true, live to see the completion of the famous building with which his name is inseparably associated, but he erected many other public buildings, including the churches of San Lorenzo and of the Holy Spirit, at Florence.

We have entered at some length into the life-story of Brunelleschi for three separate reasons. Firstly, because his defiance of the magistri was the first great step that led to the break up of the masons' guilds on the Continent, and to the ultimate separation of masons and architects into two distinct

classes or professions. Secondly, because, although the story has been told in various forms, it is only in comparatively recent years, and as a result of modern research, that the true significance of his relationship to the masons' guild has been discovered. We have, therefore, interpreted anew the old story in the light of modern knowledge. Thirdly, because his revival of the older forms of masonry heralded that great re-birth of classic architecture which spread gradually to France and Germany, and from thence to England—and, indeed, the whole of Western Europe.

Before tracing the development of this new movement in Britain, it will be necessary first to describe briefly the distinguishing characteristics of the masonry of the Renaissance as compared with that of the Gothic era. In Renaissance buildings the walls are constructed of ashlar masonry. Occasionally the lower storeys are boldly rusticated, presenting thus a striking contrast to the smooth-faced walling above. The materials used are generally of massive proportions—perfect symmetry—the proportion of part to part is carefully studied, grandeur being gained by simplicity of construction rather than by multiplicity of detail. Those classic features, the shapely Grecian, Ionic, and Doric columns are revived, and are used decoratively as well as structurally. The mouldings are bolder and more impressive. Cornices, balconies, and string courses occur frequently, and generally give what might be called a horizontal effect to the decoration.

The door and window openings are bridged over either by strong, square-shaped lintels or by bold and striking semi-circular arches. Moulded architraves of classic design are reintroduced in the doorways and other openings. Instead of lofty, decorated towers, the stately dome is a characteristic feature of the style. Not, however, that towers are altogether unknown in Renaissance architecture. In St. Paul's Cathedral and elsewhere Sir Christopher Wren has introduced them with remarkable effect. The general style, of course, varies slightly in different centuries and in different countries, but these are its predominant features. In contradistinction to all these features, Gothic architecture, as we have noted, was characterised by the picturesqueness of detail in every part. The walls in Gothic masonry were frequently constructed of small uncoursed stones; columns were rarely, if ever, used, except when actually required in the construction of the building. The embattled parapet took the place of the cornice. In the string courses carved ornaments were

conspicuous, and the whole series of mouldings depended for effect on light and shadow.

"Come, leave your Gothic, worn-out story," exclaims Clough, and forthwith he proceeds to sing the beauties of the Renaissance buildings:

> "They love not fancies just betrayed,
> And artful tricks of light and shade,
> But pure forms nakedly displayed,
> And all things absolutely made."

In Gothic masonry, too, the doorways and openings were in almost every case pointed, and not infrequently enriched by graceful designs in tracery, while lofty and picturesque towers were the crowning features of the buildings.

Whence came it then that Gothic masonry, once supreme in Britain, gradually gave way to the new art of the Renaissance?

There is, as one historian aptly says, "a certain perfection in art to which human genius may aspire with success, but beyond which it is the apprehension of many that improvement degenerates into false taste and fantastic refinement. The rude simplicity of Saxon architecture was supplanted by the magnificence of the ornamental Gothic, but magnificence itself is at last exhausted, and it terminated during the present period (early in the sixteenth century) in a style which some, with an allusion to literature, denominate the florid. Its characteristics are a profusion of ornaments, minute, yet delicate, a finishing light and slender, from which apparent strength and solidity recede. . . . Roofs divided by slight ribs into numerous compartments, fretted curiously by rich embroidery, interspersed with sculpture, and spangled with pencil and clustering decorations, like those grottoes where the oozing water is petrified before it distils from the vault. It is a style censurable as too ornamental." Henry VII., and Wolsey, in the reign of Henry VIII., did much to foster this more degenerate type of Gothic art, but even while doing so they succeeded, unconsciously it may be, in introducing into Britain the first breath of the Renaissance.

Socially, politically and religiously, the country was gradually preparing for the change. The desolating Wars of the Roses were finished. As a result of the twelve famous battles, eighty princes of the realm were slain; many of the best known families of the land were annihilated, and more than one of the older castles was transformed into a heap

of smoking ruins. In the religious world the authority of the Pope was tottering to its fall. Lurking abuses crept into the monasteries. Then it was that Henry VIII., for good or for evil—and that there was a strong admixture of evil in the transaction, no one I think will now seriously dispute—suppressed the monasteries and appropriated their wide-spread possessions. Save for its effect on the development of art and industry, the religious struggle that preceded the Reformation need not concern us here, yet one is tempted to exclaim with the foreigner who witnessed some of the barbarous scenes of the period: "Good God! how unhappy are the people of this country, who are hanged for being Papists or burned for being enemies of the Pope."

Socially, the new generation who succeeded the noblemen who fell in the Wars of the Roses were more susceptible to the newer intellectual movements that were beginning to make themselves felt on European life and thought. They desired, moreover, to establish for themselves larger and more commodious houses than those of their predecessors, for in those days the homes of the "country gentlemen," as distinct from the noblemen, were still sordid and of ill-repute. Henry VIII. and Edward VI. employed also part of the money which they appropriated from the monasteries in erecting and endowing various grammar schools and colleges. Now it so chanced, that while all this building was going on, there were in the court of the sovereign certain foreign artists and scholars who had come strongly under the influence of the Renaissance school. From these Continental artists and artisans the first faint glimmering of the new light of the Renaissance was shed on British architecture. Grecian architecture was gradually introduced, but until a purer taste was created, the classic features were intermixed promiscuously with those of the Gothic, producing sometimes a discordant and barbarous effect. Brunelleschi died in 1444, and Alberti in 1472, but it was nearly a century and a half after this before an architect arose in Britain who could justly be placed on a level with these famous Italian masters.

In Britain the growth of the newer art may be conveniently divided into three great stages. Firstly, the attempts of Italian artisans to introduce their own methods of workmanship. Secondly, the efforts of English workmen to emulate their Italian brethren, and influenced while so doing by Flemish and German masons. Thirdly, the mature art of the Renaissance, introduced by Inigo Jones, the English Palladio, as he

is sometimes termed. By his inherent genius, Jones so modified and adapted the style of the great Italian that it became, as has been said, "the foundation of all subsequent architecture in England for the next 200 years."

The foreign workmen were introduced into Britain by King Henry, and by Wolsey so early as 1515, when the latter leased Hampton Court and proceeded to erect it into a magnificent palace. The plainer branches of mason work were performed by Englishmen, but practically all the ornamentation was carved by Italians. Under Italian influence terra cotta was also largely used for building purposes for upwards of forty years—from 1500 to 1540. Amongst the more famous workmen brought over from Italy at that time were Holbein, Torrigiano, and the famous John of Padua. Pietro Torrigiano was, it is said, at one time the rival of Michael Angelo. One day, however, he resented the pre-eminence of his rival by a hasty blow, for which, as some aver, he was expelled from Florence. In 1512 he came to England for the purpose of executing the gorgeous tomb of Henry VII. By an indenture dated 12th October, 1512, he bound himself to complete the tomb in the space of seven years. His reward was liberal. He received for the work £1,500, equivalent now to about £10,000. The tomb was a sarcophagus of black marble of Gothic outline, although all the details were unmistakably Italian. Torrigiano also made for King Henry Seventh's chapel some images, a garnishment, an altar, and several other works of art.[1]

Apart altogether from those famous craftsmen, Italian masons were present in England in considerable numbers during the first part of the sixteenth century—as workmen not as designers. Hampton Court, for example, is a building purely English in design. That English masons built the fabric of the building is indisputable. But when this work had been completed by the Englishman in his way, the Italian mason stepped in and enriched the walls with arabesques, cherubs' heads, and other fancies brought from his home in the south. Thus it is that in many buildings of this epoch the mouldings, vaultings, and tracery are of a purely Gothic

1 "Torrigiano quitted England to settle in Spain, where in his passion he demolished an image he had carved for the Virgin, for which he was imprisoned by the Inquisition, and from madness or a lofty spirit starved himself to death. Sir Antonio Moore, for a similar offence, met with a more lenient punishment. Philip, King of Spain, bestowed a familiar but rough slap on the painter's shoulders, which the latter returned with his cane; and for this the punishment was a temporary banishment. In Spain, it is safer to assault the person of a living monarch than to deface the statue of a dead Virgin."—*Walpole's Anecdotes of Painting.*

FIG. 29.—GATE OF HONOUR, CAIUS COLLEGE, CAMBRIDGE.

character, while the ornamentation is purely Italian not only in design but in the delicacy of finish and the care and minuteness that characterises the execution.

It is probably the case that these travelling Italian workmen would of themselves have exercised but little permanent effect on British masonry, but they at any rate served to familiarise the English masons with the spirit and trend of the Renaissance and to pave the way for the next great advance of the New Architecture.

The years passed on, however, and in the fulness of time King Henry VIII. passed to the land where kings and courtiers are not. Edward VI. and she whom men have christened "Bloody Mary" soon followed in his wake, and Queen Elizabeth took her seat on the vacant throne. At that time, and for many years afterwards, architecture had not yet become a distinct profession. The master mason of the guild still executed the designs and supervised the erection of the buildings. The work was carried out by the various trades in the associated manner we have already described. The owner or owners of the buildings supplied the materials, and each separate trade guild executed its own part of the contract.

In this reign the carved work on the buildings was executed not by Italians but by German or low-country masons. Queen Elizabeth's reign, however, was characterised by the erection of many great domestic mansions, and in the execution of the designs for these structures Flemish and German co-operation was not infrequently solicited. As has been aptly said, however, the Elizabethan style was mainly "an attempt to translate Italian ideas into the English vernacular." It was to help in effecting this translation that the aid of the German mason was invoked. The Gate of Honour, Caius College, Cambridge, is generally regarded as a very fair example of German influence.

German masons, however, continued to find work in England until they were vanquished by Inigo Jones towards the end of Queen Elizabeth's reign. Their work to a large extent consisted in the making of monuments and chimney-pieces. These German chimney-pieces may be found in nearly every Elizabethan house of importance, and excellent examples of their skill may be seen at Hatfield, Cobham, Blicking, the Charterhouse, etc.

By this time our English artists and students had commenced to visit Italy for the purpose of studying on the

spot the handiwork of the Continental masters, and two small volumes on Italian architecture published about this period show that a knowledge of the principles of the newer architecture was gradually gaining ground in Britain. One

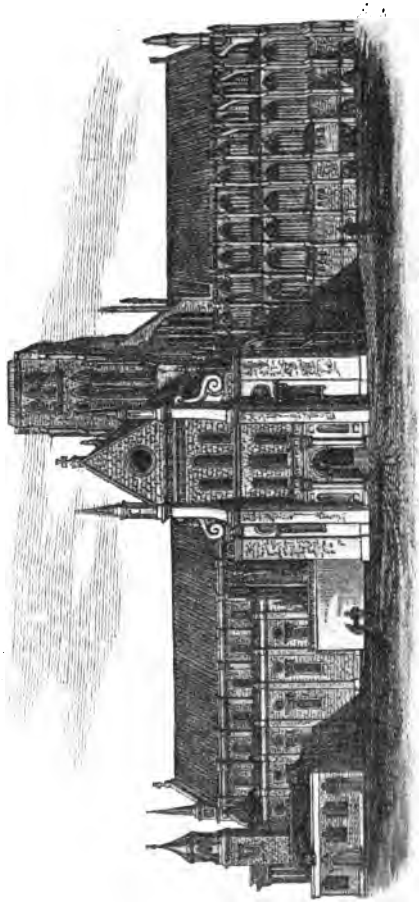


FIG. 30.—OLD ST. PAUL'S CATHEDRAL IN 1656

of these—the first treatise on Roman architecture which ever appeared in England—was entitled "A Tracte containing the Arts of Curious Paintinge, Carvinge, and Buildinge, written first in Italian by John Paul Lomatius, painter of Milan, and Englished by Richard Haydock, of Newe College, Oxford,

1598." The second volume. which helped to popularise the art of the Renaissance in Britain, was published in 1611, and entitled, "The First Book of Architecture made by Sebastian Serly (Serlio), entreating of Geometrie, etc., by Robert Peake; translated out of Italian into Dutch, and out of Dutch into English." It was a small folio, volume, black letter, and illustrated with woodcuts.

Before proceeding to trace the further development of the New Spirit in British masonry—especially as it reveals itself in the great works of Inigo Jones, the first British architect to grasp the full significance of the Renaissance—it will be necessary in a few brief sentences to narrate the effects of Continental influence upon the masons of Scotland.

NOTE.—Glossary of the old Scottish words used in this chapter :—

Groûndstane—Foundation-stone.
Tyisday—Tuesday.
Aisleyr—Ashlar.
Meikle—Much.
Mychtkour—Neighbour.
Ilk—Eve·y.
Big—Build.
Stanys—Stones.
Oulklie—Weekly.
Haylh—Whole.
Meth—Food.
Feyit—Hired.
Fre—From.
Decoir—Decorate.
Parroche—Parish.
Gar—Compel.
Aith—Oath.
Fathis—Faiths.
Awse—Consent.
Uteuch –Outwith.
Fundit in a faute—Found in a fault.

Chapter XI. Continental Masons in Scotland.

SCOTLAND in the middle ages was the nurse of a race of warriors and adventurers rather than the home of men skilled in the arts of peace. The trumpet-blast of war and the ringing clash of arms were accounted more honourable than the clank of hammer on chisel or the swish of the carpenter's plane. Scotsmen visited foreign lands more frequently to take their places in the forefront of the battle than to study the arts of peace. Nevertheless in her chequered history certain epochs stand prominently forth as periods in which art and industry advanced with rapid strides.

One brief epoch of this nature occurred in the reign of the unfortunate monarch James III. To us at present this epoch is all the more interesting, because it furnishes the first authentic instance in which a Scottish master mason is accorded a prominent place in history. King James was fond of building, and spent vast sums of money in making additions, alterations, and repairs on his Scottish castles.

Little, however, is known of the history of the first master mason to the crown of Scotland. The chroniclers of those ages were men apt to look with sovereign contempt on men in Cochrane's sphere of life, and it is difficult to discover the exact truth concerning him. In Pinkerton's History, where the fullest account of Cochrane the Builder is given, there are obvious inaccuracies, some of which are carried forward even into the generally reliable pages of that monumental work "The Dictionary of National Biography"—"a mason, as was said by his enemies, but more probably an architect by profession." Such is the description given of Cochrane in the "Dictionary," obviously a misleading one, for, as we have already seen, architecture and masonry were not at that time separated into two distinct callings. The master masons of Scotland for many years after this were architects; master masons and artisans in one—the more skilled and expert workmen within the masons' guild.

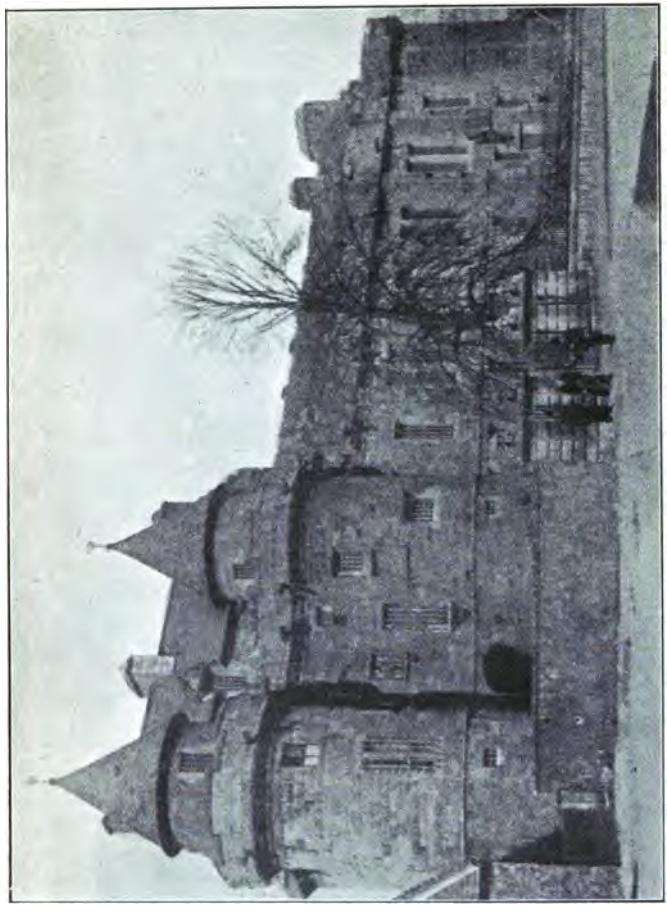
This much, however, we may gather concerning Cochrane. He was a skilled and expert workman, a master in his own

craft. In his earlier life he was doubtless associated with one of the bands of travelling artisans, who, in the course of their wanderings, visited, as was their wont, many foreign lands, for Cochrane, we are told, learned his craft in Italy. His studies in Italy must thus have been carried out during the great revival of Florentine architecture immediately after the death of Brunelleschi. Returning to Britain, he was employed in various capacities in connection with the mason work that was then being carried on at the king's royal palaces. King James, who took a keener interest in the arts of peace than in the scheming and plotting of courtiers, was attracted by his manifest ability in the higher branches of masonry, and in due course Robert Cochrane rose to the position of chief master mason to the king. In that capacity he built the great hall of Parliament House and the Chapel Royal (afterwards rebuilt by James VI.) at Stirling.

Scotland was a superstitious land in those days, and Cochrane's strong influence over the king was, among the common people, attributed to his skill in the black arts—a delusion sedulously fostered among the nobility, amongst whom the king's chief favourite, who had risen from the plebeian ranks to a position scarcely less powerful than that occupied by the sovereign himself, was specially obnoxious. But yet greater honours were heaped by the king on his chief master mason. Cochrane was created Earl of Mar, and raised by the king's favour to a position of great power and influence. Unfortunately for themselves, neither King James nor the mason Earl sought to conciliate their enemies, whose dignity was thus outraged by what seemed to them like adding insult to injury. As his power and influence grew greater, the fury and jealousy of the nobility increased. He was, it seemed, no less fond of ostentation and show than were the oldest families in the land. Then it was that the king, on the advice of Cochrane, instituted certain far-reaching fiscal changes which had the effect of making for the king's adviser many enemies amongst the middling and lower ranks of the people who had hitherto been his friends. The nobility seized their opportunity, and the upshot was that the first master mason to the crown of Scotland ended his days in a somewhat ignominious fashion, dangling at the end of a halter over the Bridge of Lauder, a fate that was shared by other favourites of the king, some of whom were eminent in the finer and more peaceful arts.

Although Cochrane studied the art of masonry in Italy, it

cannot be said with certainty that the work executed in Scotland under his care betrayed to any extent its foreign influence. It was reserved for later master masons to the crown to



[*Montrose.*

FIG. 31.—SOUTH FRONT, FALKLAND PALACE.

Photo, J. Carr,]

introduce into these northern regions the first fruits of the Renaissance. When the Scottish Church ceased to be the chief builder, the kings of Scotland were for several generations the most distinguished patrons of the craft. They retained in

their services large staffs of artisans, under the supervision of one or more master builders. Of these "masters" many were either of foreign origin or had come directly under the influence of the Continental schools.

It must not be supposed, however, that the State monopolised the services of the highly-skilled artisans who emigrated at that time from the Continent to Britain. On the contrary, church-building continued for several years to occupy the energies of certain of their numbers. The following inscription in Melrose over the grave of a Parisian mason tells its own tale :—

John Morow (Morvo) sum tyme
callit was I, and born in Parysee,
certainly: and had in keeping
all mason work of Santan
druys (St. Andrews), the hye kyrk of
Glasgu Melros and Pasley of
Nyddysdayll and of Galway.
Pray to God and Mari baith
And sweet St. John keep this
holy kirk frae skaith.

Over a door leading to a secret stairway there is also carved a shield embellished with mason's tools and compass, and containing an inscription, part of which, however, has long been indecipherable :—

Sa gaes the compass ev'n
about, sa truth and laute
. . . do but doubt
Behold the end John Morvo.

It is, however, in civil rather than ecclesiastical architecture that the influence of the foreign mason is most strongly felt.

John Mylne, the first of a famous family of masons, succeeded Robert Cochrane as master mason to the Scottish crown, and under his supervision a considerable advance was made with the mason work at Stirling Castle. Who followed in John Mylne's footsteps it is difficult to say, but from the reign of James V. to the death of Queen Anne the list of those who held that high position is practically complete. There is no need to tell their story in detail, for has not that been done admirably by Robert Mylne?[1]—himself descended from the famous family of Scottish masons. The list of master masons

[1] "The Master Masons to the Crown of Scotland." By Robert Mylne.

to the crown of Scotland appointed under privy seal, as given by Mr. Mylne, is as follows :—

John Brownhill (for life). Given at Stirling, January 16th, 1532.

Thomas Franche (for life). Given at Kelso, April 30th, 1535.

Mogin Martyn (Frenchman), master mason to the Castle of Dunbar. Given at Orleans, December 1st, 1536.

Nicholas Roy (Frenchman). Given at Falkland, April 22nd, 1539.

William Wallace (for life), Edinburgh. Appointed April 18th, 1617, by James VI.

John Mylne (the elder), Principal Master Mason (for life), Holyrood House. Appointed by Charles I., December 17th, 1631.

John Mylne, Junr., Principal Master Mason (for life). Edinburgh, February 1st, 1636. Appointed by Charles I.

Robert Mylne, Principal Master Mason (for life). Whitehall, February 28th, 1668. Appointed by Charles II.

Gilbert Smith (during pleasure). Appointed by George I., on January 19th, 1715.

James Smith (during pleasure). Appointed on April 14th, 1819.

It will be observed that the French influence, as shown in these appointments, was stronger in the troublous reign of James V. Not Mogin Martyn and Nicholas Roy only, but Thomas Franche also belonged to the land in which the Scottish king wooed and won his bride. Indeed, this latter family exercised for at least three generations a strong influence on Scottish masonry. John French, "fadder to Tomas," had evidently been in the employment of the king at the building of Linlithgow. In the north aisle of that palace his body was interred, and over it carved the inscription :—

> Heir lyes Jhon Franch,
> Fadder to Tomas, Master
> Mason of Brigg of Dee.
> Obit anno MCCCCLXXXIX.

His son Thomas, before being appointed, as we have seen, to his position of honour under the king, served the Church as master mason to Bishop Elphinston, and it was at that time that he built the famous bridge referred to in the inscription, as well as a part of the fine old cathedral of St. Machar, in Aberdeen. These, indeed, seem to have been regarded as the best examples of his skill in masonry, for by them he is commemorated on his son's as well as on his father's grave.

The ast resting-place of his son, in St. Machar Cathedral, Aberdeen, was marked by these words:—

> Here lyis Tomas,
> The son of Tomas Franch,
> Master Mason of Brig of Dee and
> This isle—1530.

The old bridge of Dee thus frequently referred to is indeed even yet a splendid specimen of a mediæval Scottish bridge, and, although with frequent repairs and alterations it has been practically rebuilt since then, it still retains much of its old-world strength and beauty.

> A bridge doth reach along the river Dee,
> Whereon seven double stately arches be.
> Who built this sumptuous work if ye would know,
> The mitre that is carved thereon doth show.

Thus wrote Arthur Johnston, the Scottish Latin poet, who was for many years physician to Charles I. At the time at which this bridge was erected, bridge-building was still regarded in Scotland, and indeed throughout Europe, as one of the great duties of the Church. And is not the Pope himself still the supreme Pontiff or bridge-builder?—a name handed down from the days when the construction and maintenance of bridges was regarded as peculiarly an ecclesiastical duty. Thus it was that Bishop Elphinston—a name cherished even yet throughout the north of Scotland—set himself, with the assistance of his skilful master mason, to rear that stately edifice that has many generations perpetuated the memories of both.

There is little doubt that Thomas Franch, the younger, also took a prominent part in the building of St. Machar Cathedral, for mason work in those days was carried on in quite a leisurely fashion, the erection of this fine old church occupying rather more than a hundred years.

King James V.'s strong French sympathies were nowhere shown so clearly as in his patronage of French masons. True, miners, goldsmiths, and other highly-skilled artisans were also brought by him from the Continent to Scotland, and much was done at that time to introduce into the northern regions of Britain a knowledge of the fine and the useful arts. But architecture was James's chief delight, and French and Continental artisans were numerous throughout Britain in those days. Nicholas Roy built part of Stirling Castle; Mogin (or Moses) Martyn was master mason at the building of Dunbar Castle. In the Scottish treasurer's accounts from February

21st to 26th, 1539, we find such entries as this:—"Item: Given to the Franche Maister Mason in Falkland"; and then there follows in this, as in other entries, a record of what must at that time have been fairly liberal payment for the work accomplished.

The work of these French artisans may be said to herald

Photo, G. I. Smith,] [*Aberdeen.*

FIG. 32.—ST. MACHAR CATHEDRAL, ABERDEEN.

the first faint dawnings of Renaissance art in Scotland. In the work they produced we see the Renaissance style superadded to the Gothic, after the fashion of Paris and Orleans. Fantastic decorations, and strange, grotesque figures, none the less skilfully carved, are characteristic of the type.

Although Rosslyn Chapel belongs to an architectural period a little prior to that with which we have been dealing, a brief reference to some of the almost inimitable workmanship there

FIG. 33.—THE PRENTICE PILLAR, ROSSLYN CHAPEL.

displayed may not be inappropriate here. Our illustration shows the "apprentice's pillar," in the south-east corner of the

chapel, exhibiting a grandeur of design and delicacy of chiselling unexcelled in any other part of the building. On its base several dragons, chained by their heads and mutually entwined, are carved in bold relief. From base to capital four exquisitely sculptured garlands of flowers and foliage are entwined around the column. It is notable, too, that each of the sculptured wreaths, though equally beautiful, are of different design. No mechanical imitation mars its perfect beauty. On the south side of the capital is a representation of Isaac placed on the altar and, beneath it, the ram caught by the horns in a thicket. Eastward a little is seen Abraham, with hands uplifted in prayer standing near his devoted son.

But what perhaps renders this pillar all the more interesting is a quaint legend or tradition associated with it. The model of the column was fashioned in Rome and sent over to Scotland to the master mason charged with the duty of reproducing the delicate fancies in stone. So little confidence, however, had this master mason in his own abilities that he hesitated to commence the work without having first seen the pillar in Italy after which it was said to have been modelled. Accordingly he set out on what was then a long and arduous journey. Months passed away, and on his return to Scotland he found that one of his apprentices had undertaken the work and succeeded in producing a pillar of lasting beauty—a veritable triumph of the sculptor's art. So inflamed by rage and jealousy was his employer at this that he seized a small hammer that was lying near, struck his apprentice a savage blow on the forehead, and killed him on the spot.

Scarcely was the fatal blow struck when a flood of remorse and shame swept over him, and in the days that followed he set himself to perpetuate in stone the dark tragedy that clouded the building of the chapel. That is the explanation of the three heads carved in stone that may be seen nearly halfway up in the south-west corner of the body of the chapel. There is a figure of a young man's head with a scar above the brow; directly in line with it, and above the second pillar in the south aisle, is the head of a woman weeping. Opposite the first is the head of an old man frowning. These are said to refer to the legend just related concerning the "'prentice pillar." The scowling old man is said to represent the master mason, the scarred forehead that of the ingenuous apprentice, and the woman's head that of the apprentice's mother.

Chapter XII. Two Famous British Architects.

From the end of the sixteenth to the beginning of the seventeenth century the art of masonry was in a transition stage. The builders were rapidly losing their mediæval spirit, and the trade guilds were decaying, but the master builder had not yet blossomed out into the latter-day architect, nor had the employers and employed been divided into two distinct social classes as they are to-day. The specialisation of building was begun, however, and if, perforce, the artisan became less of an artist and more of a mere hewer of stones, this division of labour was not without its compensations, synchronising as it did with the most brilliant days of the Renaissance architecture in Britain. To trace fully the development of Renaissance architecture as seen in the great works of Inigo Jones and Christopher Wren is, however, somewhat beyond our present theme. Such subjects belong rather to the history of architecture than to the history of masonry. Nor indeed is it necessary to deal at length with such a subject. Volume after volume has been written discussing from every point of view the period of the Renaissance. Our purpose has rather been to trace the development of masonry as distinct from architecture, bringing into prominence those aspects of its history that are apt to be overlooked by writers on architecture.

From this point of view the life's work of the great Renaissance architects may be wisely compressed into a smaller space than the importance of the subject would otherwise warrant.

Inigo Jones was born in the parish of St. Bartholomew's, Smithfield, in the summer of 1573. How he spent his earlier years it is difficult now to determine. Tradition has it that he was apprenticed to a joiner, but there is little reason to believe that he spent much time at that calling. It was as a draughtsman that the coming architect of the Renaissance first distinguished himself. Both the Earls of Pembroke and Arundel early interested themselves in his career, and before the sixteenth century had drawn to a close—that is to say,

before he had reached his thirtieth year — he was able to pay a long visit to Italy, there to study the arts in which he took so keen an interest. For several years he resided at Venice. Already, however, his fame was rumoured abroad, and King Christian of Denmark invited him to enter the services of the Danish court. It was probably but in a minor capacity that he served, although it has been said that even then he assisted in designing more than one important building.

In 1604 he returned to England, having by that time acquired the reputation of one who had travelled much and studied closely all the finer arts. By that time the English and Scottish crowns were united, and King James was ruler of the united realm. It is on the occasion of that monarch's first visit to Oxford University that Inigo Jones is first mentioned as having taken part in designing work. King James was a warm patron of the playhouse, and the University decided to entertain him with three plays in the hall of Christ's Church. In addition to the King's master carpenter and others, they also "hired one Mr. Jones, a great traveller, who undertook to further them much and to furnish them with rare Devices, but performed very little of that which was expected. He had for his pains, as I have heard it constantly reported, £50."

Mr. Jones soon established for himself a position at Court, although for five or six years it is evident that his duties consisted simply in designing the scenery at the Royal playhouse, and occasionally perhaps acting as King's messenger. It was not until 1610 that he was appointed Surveyor-General to Prince Henry, in which capacity he superintended certain alterations at various Royal residences. He continued, however, to design the scenery for the masques at Court until the death of his Royal master in 1612. Freed by that event from continuous duty at Court, he paid a second visit to Italy, where, enjoying as he did the personal friendship of the most famous architects then living, he made an exhaustive study of the classical buildings of that country.

In 1615, Simon Basil, Surveyor-General of the Works, died, and Inigo Jones was appointed to fill the vacant office. Then, indeed, it was that he entered on his famous career as the first of the great English architects. The oldest architectural drawing by Jones in existence is dated 1616—the year following his appointment. The new chapel at Lincoln's Inn, the church of St. Alban's, Wood Street, the Queen's House at

Greenwich, are all generally attributed to him. In January, 1619, fire broke out in the buildings at Whitehall, and the old Banqueting House was burned to the ground. Jones was commanded to furnish a complete scheme of new buildings, and prepared two separate sets of plans for that purpose. In these designs the sumptuous Banquetting House formed but one of the features of a vast façade which the two first Stuart Kings of England intended to carry out on a colossal scale. Lack of money prevented the carrying out of the design supplied by Jones. Only the still famous Banquetting House was ever built. Nevertheless, the whole plan was a magnificent architectural conception, bold and original in its appearance, and characterised by its admirable proportions and the orderly distribution of its parts. "There was, in fact," says Mr. Reginald Blomfield, the well-known writer on architecture, "no precedent whatever in England for such a building as Inigo Jones designed for Whitehall. The force of his genius is shown in the fact that almost at one effort, and without previous failures, he was able to create a finished masterpiece of design in a manner that was as yet unfamiliar in England. The Banquetting House, mere fragment though it is of a stupendous design, is to this day the most accomplished piece of proportion in England, and not inferior to the finest work of Palladio and the great Italian masters."

This famous hall, the foundation-stone of which was laid on June 1st, 1619, was completed on 31st March, 1622, at a cost of £15,653 3s. 3d. From that time onward until the dawn of the Commonwealth era Jones continued in the service of the King as Master of the Royal Buildings.

His next great undertaking was in connection with the rebuilding of St. Paul's Cathedral—a task, however, which he was not destined to see completed. The ancient building was in a state of complete dilapidation, and time after time efforts were made to secure its restoration. It was not, however, until 1631 that definite steps were taken in the matter, and instructions were given to Jones to proceed with the work. The design he supplied, although greatly admired at the time, is generally regarded as inferior to that of Wren's. The work went slowly on until the outbreak of the Civil War brought matters to a crisis. Cromwell and his Ironsides triumphed throughout the country. The doughty republican stalked into the halls of Parliament and brusquely dismissed the Royalist government. Jones, amongst others, was deprived of

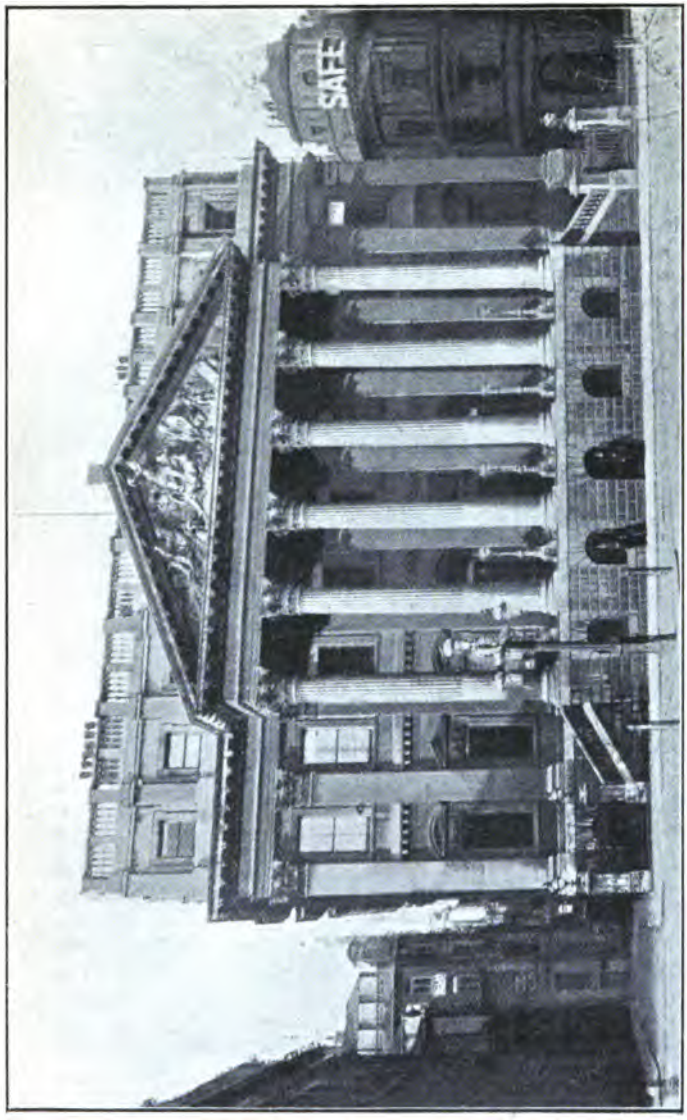


FIG. 34.—THE MANSION HOUSE, LONDON. (BY DANCE THE ELDER.)

his office, for his royalist sentiments were but little admired by the new rulers of the land. The great architectural scheme on which he was engaged was promptly stopped. Jones himself—so tradition has it—buried his money in Lambeth Marshes and fled to Basing House in Hampshire, which after a two years' siege was taken by Cromwell in 1645. He was prosecuted by Parliament for having, in obedience to an order of Council, pulled down certain houses to make room for St. Paul's Cathedral. For this and similar offences he was fined over £1,000. Although deprived thus of his official position Mr. Jones was by no means idle. His fame as an architect had spread throughout the country, and during the remaining seven years of his life—he died on 21st June, 1652—he designed many important buildings in various parts of the country, buildings which to a lesser man would have brought no small measure of fame and honour.

"Inigo Jones," says the writer already referred to, "was on the whole the greatest architect and one of the most accomplished artists that this country has produced . . . . . His extraordinary capacity is shown by the success with which he freed English architecture from the imbecilities of the German designers, and started it on a line of fresh development, borrowed it is true from Italy, yet so successfully adapted to English traditions, that it was at once accepted and followed by the best intelligence of the country for the next hundred and fifty years . . . . . His own theory of architecture was that, in his own words, it should be 'solid, proportional according to the rules, masculine and unaffected. No man has ever more completely realised his own ideal of his art.'"

With the buildings of John Webb, Marsh and Gerbier it is scarcely necessary to deal here. The works of Christopher Wren mark the next important milestone in the advance of British masonry. When they buried Inigo Jones in the Church of St. Bennet in 1652 his scarcely less famous successor was a youth of 20 summers and a student at Wadham College, Oxford. The following year he was elected to a fellowship at All Souls, and although in 1657 he was appointed to a professorship of astronomy, star-gazing does not seem to have monopolised his attention, and four years later he was appointed Assistant Surveyor-General of Works. He had previously won considerable distinction in mathematics, chemistry, and even anatomy. In 1663 he was invited by the Dean and Chapter of St. Paul's to survey the Cathedral, which was fast falling into decay.

Inigo Jones's scheme of reconstruction had, as will be remembered, been stopped by the Civil War. Not only was it stopped, but the revenues of the Cathedral and the

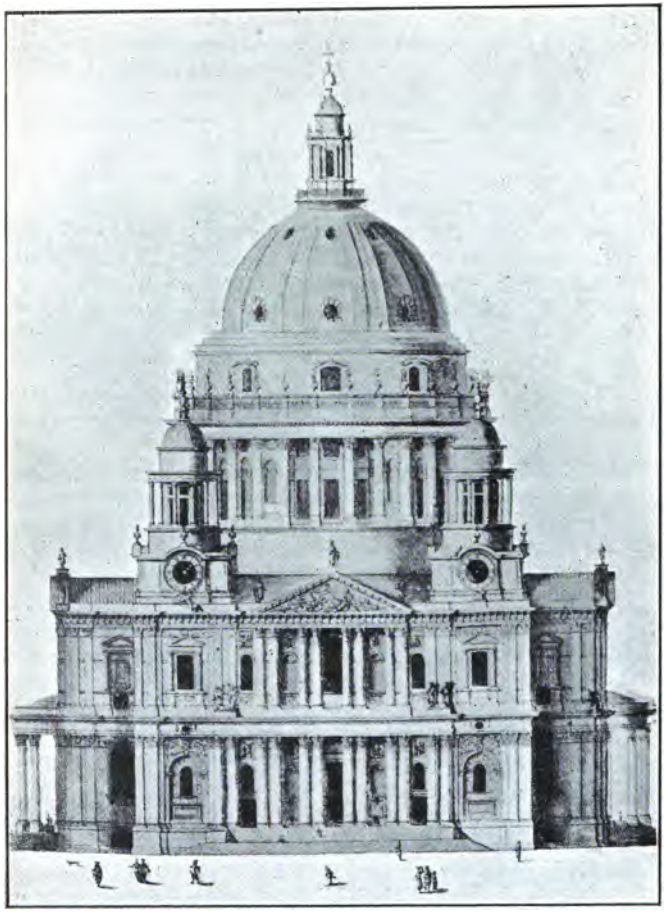


FIG. 35.—ST. PAUL'S, NEARLY AS EXECUTED. A DRAWING BY WREN. (All Souls' College Collection.)

accumulated funds that had been gathered from many different sources for its repair were confiscated by the Parliamentary party. Even the unused building materials were

appropriated, and on Colonel Jephson's regiment becoming clamorous for arrears of pay the scaffolding on the Cathedral walls was handed over to them as their share of the booty. One part of the church was converted into a barracks for dragoons and a stable for their horses. The western side, where Inigo Jones had reared a portico of great beauty, with fourteen stately columns, 46 feet in height, supporting an entablature crowned with statues, underwent a remarkable change. The statues were thrown down and broken in pieces, and within the portico a number of shops were fitted up where commodities of all kinds were sold. This state of things lasted until the Restoration, when once again the rebuilding of St. Paul's began to occupy the attention of the people. The ravages of time, aided at one time by the ruthless hands of the Parliamentary soldiers, had begun to deal harshly with the ancient church.

Then it was that Christopher Wren was invited to report upon the building. Subscriptions for its restoration flowed in with wonderful rapidity. The rising young architect drew up an elaborate account of the state of the building, and prepared plans and drawings for its projected restoration. In these plans, which can scarcely be said to have won the approval of those who can speak with authority on masonry, Wren seems to have been slowly feeling his way towards his later architectural achievements. Had the design been carried out, however, it might, in its completed form, have differed very materially from that which he sketched on paper. Both Inigo Jones and Christopher Wren watched very closely their works as they slowly grew into shape under their hands, and both made important improvements as the buildings gradually advanced. Be that as it may, Christopher Wren's plans were submitted to the King for approval, and meanwhile scaffolding was erected round the Cathedral, and efforts made to strengthen its more dangerous parts. Before further steps could be taken, however, the remarkable Fire of 1666 broke out, and more than half of London was transformed into "a heap of smoking ashes." The flames spreading westward seized on the scaffolding that surrounded St. Paul's, and after a fierce conflagration the famous old cathedral was again a tottering ruin.

That great disaster opened up a wide field for Wren's genius. He was appointed Surveyor-General in 1668, and drew up a plan for the entire rebuilding of the metropolis, embracing wide, magnificent streets in every direction, with spacious quays along the banks of the river. The plan was accepted

by the King, but, owing to want of money, these elaborate proposals were never carried out. It was the building of the city churches rather that constituted his real life's work, and which for nearly forty years engaged so much of his energies. Besides St. Paul's Cathedral and 53 city churches

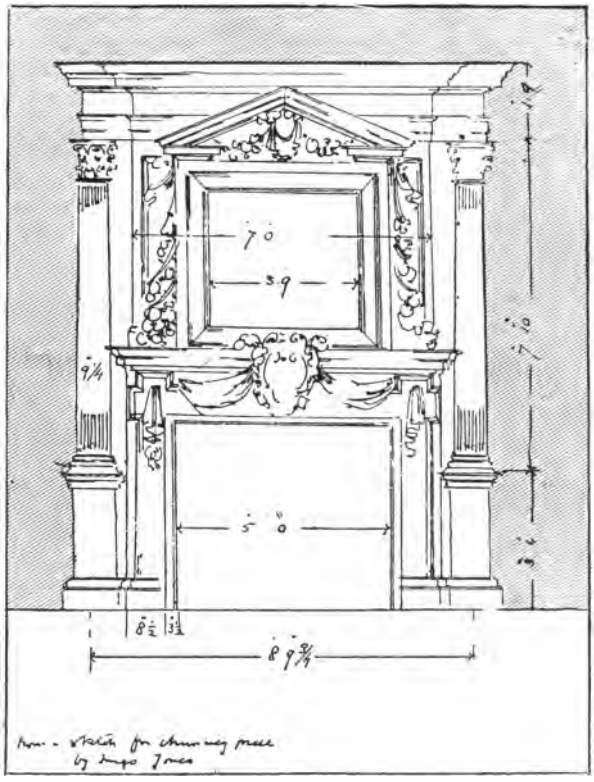


FIG. 36.—SKETCH FOR CHIMNEY-PIECE, BY INIGO JONES.

he designed three palaces, two hospitals, and a host of minor buildings.

If genius consists, as has been said, of an "infinite capacity for taking pains," Wren was indeed an architect of genius. Hard and strenuous labour, combined with minute supervision and personal attention to every detail of the work, as it progressed, was the keynote of his success.

An effort to patch up the ruins of St. Paul's left by the Fire resulted in failure, and in 1675 the first stone of the new cathedral, designed by Wren, was laid by the Bishop of London. Thirty-five years later—in 1710—the last stone of the lantern was placed in position by the son of the master architect. For his work Wren received but £200 a year, and to the discredit of the Commissioners, be it said, he had latterly considerable difficulty in obtaining his salary. As the building approached completion, they even retained in their own hands one-half of his annual remuneration until the work was finished, under the pretence of thereby securing greater diligence and expedition on the part of the architect!

The expense of rebuilding the cathedral—exclusive of the costly decorative work—was £747,954 2s. 9d., a sum which was raised almost entirely by a small tax on coals. Among the sacred edifices of Christendom, St. Paul's ranks next to the still more famous church of St. Peter's at Rome. The latter, a work certainly of greater dimensions, took 145 years to build, was the work of twelve successive architects, and "exhausted the revenue of nineteen successive Popes." On the other hand, St. Paul's was begun and finished while one bishop presided over the diocese, was the work of a single architect and one master mason, Mr. Thomas Strong.

While the Stuart race sat on the British throne, Wren enjoyed considerable favour in Royal and influential circles. Whatever their political errors may have been, the Stuarts were at least cultured and intelligent patrons of art and literature. With the accession to the throne of George I.—the "wee bit German lairdie" of Scottish song—a change came over the fortunes of Sir Christopher Wren. Like "boetry and bainting," architecture and the finer arts were jeered at by King George I., as well as by George II. When one remembers the corrupt state of the English Court in those days, however, one cannot help thinking that it is to the eternal credit of the then aged architect of the Renaissance that he won no favour in such a quarter. At a time when, as the Jacobite song has it, "the very dogs in England's Court did bark and howl in German," the man who represented the noblest traditions of English art had naturally but few friends in "high quarters."

Charges of mismanagement were trumped up against him, and in 1718 he was dismissed from the post of Surveyor-General, after having filled it with honour and credit for the

space of fifty years. He protested that the charges were groundless, and on learning of his dismissal, he wrote with touching pathos: "As I am dismissed, having worn out by God's mercy a long life in the Royal service, and having made some figure in the world, I hope it will be allowed me to die in peace." Five years later, in the spring of 1723, he died in his house at Hampton Court at the ripe old age of 91.

Under the circumstances, it was fitting perhaps that his successor as Surveyor-General was an unscrupulous adventurer, altogether incompetent as an architect, and who, but for the fact that he succeeded one whose works will be famous in the annals of masonry long after the great cathedral which he conceived has crumbled into ruins, would have never been heard of in the history of architecture.

By this time the companion arts of architecture and masonry were drifting further apart. The change had undoubtedly both advantages and disadvantages. It was not wholly a gain. Save in sequestered rural districts the mason was no longer the architect of his own buildings. He became more and more dependent on the architect for his ideas and instructions, and his work was consequently more mechanical, and less artistic and creative. The architect, separated from the actual work in which he was interested, thinking on paper rather than in materials, became more and more of an imitator, whose work is only occasionally redeemed from mediocrity (the worst of all failures) by following the noble traditions established for British masonry by the first great architects of the Renaissance.

INDEX.

INDEX.

INDEX.

INDEX.