



A Pictorial Encyclopedia of
Decorative Ironwork

Twelfth Through Eighteenth Centuries

Over 450 Photographic Examples

Edited by Otto Hoever



A PICTORIAL ENCYCLOPEDIA
OF
DECORATIVE IRONWORK
Twelfth through Eighteenth Centuries

Edited and with an Historical Introduction by
Otto Hoever

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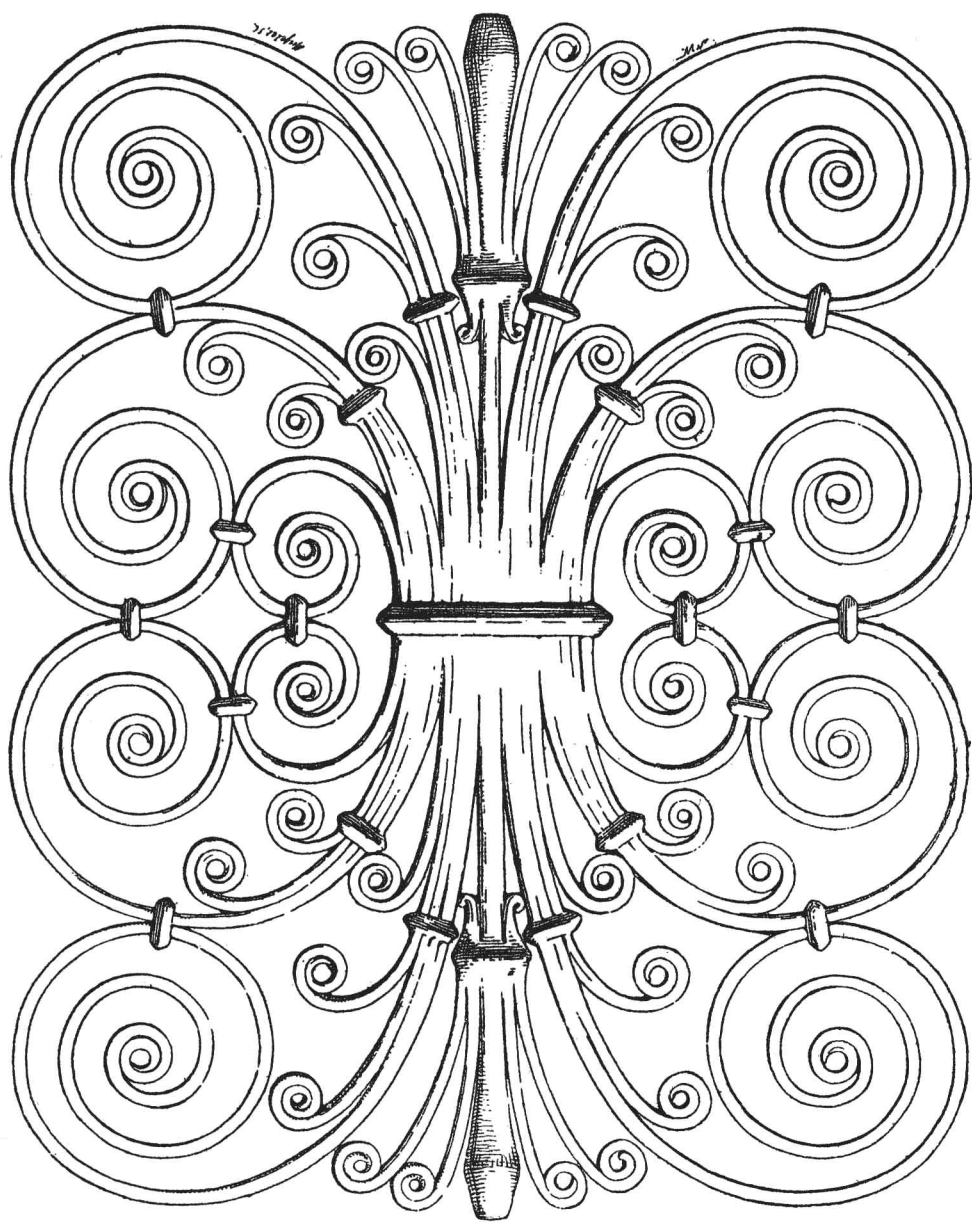
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INTRODUCTION

Ornamental Ironwork

Although the most conspicuous productions of smithcraft are rarely the outcome of the ironworkers' own designs, nevertheless, ironwork translates into material many artistic conceptions, and reflects the art of various style-epochs, and countries.

It is a well-known fact that the iron bar is the base of all lineal ornamental ironwork, however manifold the various patterns may be. A number of bars can be arranged to make a trellis, or they may be made to serve as bindings and hinges, etc. The trellis, using the term in its widest sense, was the main object of technical and artistic treatment by the masters of smithcraft. The iron bars, fixed by rivets to the doors to protect them, constitute a complete lattice-work. We may say that the use of one of the three main classes of bars: flat, round, and square is a characteristic feature of a particular style. Thus, Early Gothic favoured either narrow or broad iron bands, and Late Gothic, in the north, the round bar. In the south, above all in Italy, the Renaissance introduces the square bar, which was also preferred by Rococo smiths, particularly by the French. It was during these periods that smithwork attained to its highest perfection.

Ironwork of all kinds follows the forms of the different styles, but the transition from one style to another is slower than with other arts, and the highly imaginative lines of Late Gothic lasted well into the Renaissance, especially in Germany.

Some students have maintained that there are two different phases in the development of smithcraft, one of a more decorative character, the other architectural or tectonic. And this seems to be a correct view. But this division is equally applicable to any branch of arts and crafts. These two phases are as old as ornamental art itself. The decorative aims at enriching a surface, the tectonic limits itself to the outline or spacing of surface. The former is more dynamic and vivid, the latter more static, and gives the impression of weight and solidity. Both are best represented in their diverse characters by Late Gothic in the north, and by Renaissance in the south. Baroque and Rococo seem to unite both phases. The vertical bars of gates, for instance, represent the static and tectonic elements, whereas the frame-work, particularly the crest with its interlacing scrolls, stands for the dynamic. The different artistic conceptions obtaining in various countries have ample scope for expression in the treatment of the frame-work. The vivid forms of the north preponderate in Late Gothic, Late Baroque, and Rococo, in contradistinction to the static tectonic forms of Italian and French classical art. In the latter periods the vertical and horizontal bars are enclosed in a frame displaying a wealth of scroll, and other ornamental work. In former periods the frame was the element of stability which enclosed the richly ornamented panel in rectangular lines. Later on the reverse is the case.

The panel is now the tectonic element, the frame on the other hand the dynamic. The overthrow of gates is surmounted by a crest of the most florid character, and from it scrolls and tendrils radiate in all directions.

A later development introduces a third dimension by means of the plastic treatment of the ornament, although the lineal element is never totally absent. This phase of smithcraft is at its best in the railings, grilles, and balustrades embellishing the great Late Baroque and Rococo French, English, and German sacred and profane architectural masterpieces. The same rule applies to wrought-iron, and to stucco, wood, and stone ornament; namely that the frame is an essential part of the whole, but at the same time aims at enhancing the plastic impression of the panels. However, we should remember that decorative smithing was inspired by graphic art in its widest sense. Ornament in smithcraft depended on the decorative designs invented by the draughtsman. In the Gothic period the smiths chiefly drew their inspiration from illuminated manuscripts. This is evident in the metal work on the western doors of Notre Dame in Paris which was copied from the illuminated margins and initials embellishing manuscripts dating from the period of St. Louis. The whole surface is covered with large and small tendrils, flower sprays, leafage, and rosettes, the effect of which is both harmonious and classically restrained; in fact the panels and frame-work are nearly inseparably merged. One is almost tempted to consider the restraint of the classical ornament, formed by the sequence of ever-recurring spirals, as a Romanesque motif. Indeed, there can be little doubt that the inception of such designs dates back to the Romanesque period. But we should not forget how deeply mature Gothic in France was imbued with the classic spirit. The masters of cathedral sculptures (for instance in Rheims) very often adhered closely to antique patterns of which the drapery, the well-shaped heads, as well as the whole bearing of the figures, are a strong proof. The sketch-book of the French architect Villard d'Honnecourt, dating from the 13th century, has preserved various examples which lead us to conclude that they are based on archaeological studies of classical statues. Probably similar drawings served as models for the master-smiths when the Gothic was at its maturest period. But the majority doubtlessly took their models from illuminated manuscripts.

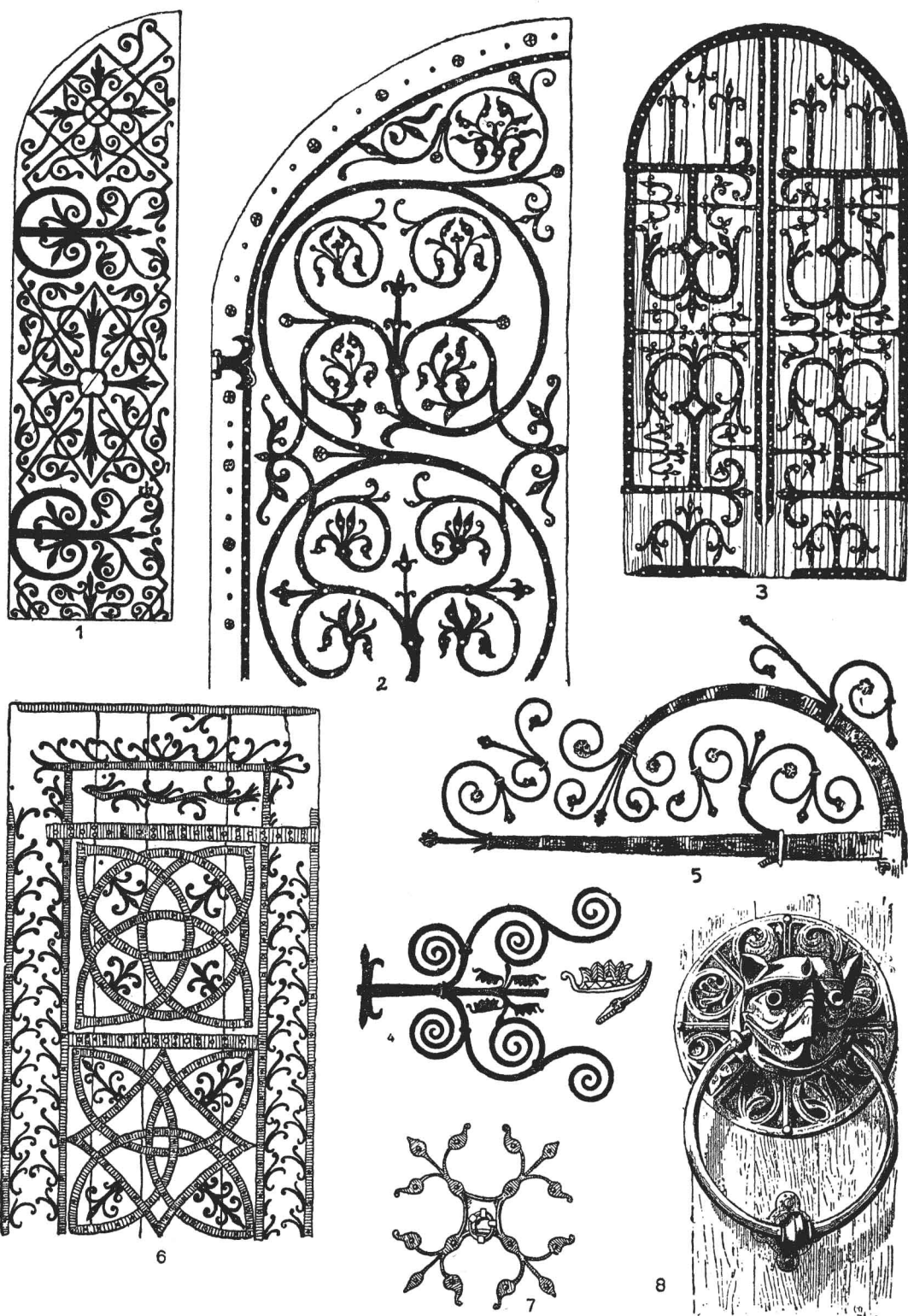
Mediaeval illuminated manuscripts were succeeded by calligraphic ornament during the Late Gothic period. The richly coloured illuminations were replaced by the pen-drawing pure and simple with all its wealth of curves and flourishes. The iron craftsmen now forged their rods in imitation of these calligraphic designs.

During the period of the Renaissance the calligraphic ornament attains to its zenith in Dürer's highly imaginative marginal embellishment of the Emperor Maximilian's prayer-book. The spirit of Late Gothic still held its own by means of its vivid designs long after the introduction of the Renaissance ornament

which seeks expression in monumental and tectonic simplicity, wide canvasses and gigantic statues. The figures by Peter Visser on the tomb of St. Sebaldus, Dürer's Madonnas and Apostles, Hans Holbein the Younger's portraits, and other examples are Gothic creations, and much of the wrought-iron work of this period is Gothic, and not Renaissance. The calligraphic style of iron ornament still retains the vitality and vividness of Late Gothic designs. As long as the round bar predominated, Late Gothic art obtained among the blacksmiths' and locksmiths' guilds. The railings (circa 1570) enclosing Maximilian's tomb in the Hofkirche at Innsbruck are a product of the same spirit which inspired Dürer and his fellow-workers in designing the marginal ornament of that emperor's prayer-book. During the course of the 17th century and of the whole of the 18th century France undoubtedly led in decorative smithwork throughout Europe. Patterns were widely spread by the works of ornamental engravers. Many of the best examples of wrought-iron work perished during the wars, the general troubles of the times, and during the Revolution; much of it was re-forged to make arms. But the engravings of the period show very clearly the development of designs, especially of those at the end of the 17th and beginning of the 18th century.

Here again the masterpieces of smithcraft were not designed by the craftsmen themselves, but by architects and draughtsmen. It is true that the master-smiths, especially the French ones, published patterns of decorative smithing, but these designs were rarely their own inventions, rather were they inspired by architects and engravers. Some of the pattern books were published in the first half of the 17th century, such as *La fidèle ouverture de l'art de Serrurier* by Mathurien Jousse (1627, in La Flèche). But the main impetus was given by the books written about 1700. The engravings of the two Frenchmen Daniel Marot and Jean Berain were of the greatest importance for the development of wrought-iron work, as well as for many other branches of arts and crafts. The French call this style *Régence*. The German modification of the French designs of the period is described as *ribbon-work*. This ribbon-work motif affords opportunities for the peculiar riot of lines characteristic of the German masters. It may be compared with Late Gothic patterns, and with the scrolls and grotesque motifs of Early Baroque before the Thirty Years' War. Whereas the French attached great value to severe surface treatment and tectonic stability of ornamentation, the Germans again favoured a more lively surface treatment. The structural details of panel and frame are blurred by the exuberance of detail to such an extent that it is difficult to distinguish one from the other. In the same manner as the bar dominated and survived the Gothic period, so too did band-iron meet the requirements of decorative smithing in later times.

* * *



1. Door from Durham, Beginning of 13th Century. — 2. Door from the Abbey Church, Radford, Nottinghamshire, 13th Century. — 3. Door, Notre Dame, Orcival, near Clermont, 12th Century. — 4. Door Hinge from St. Alban's Abbey, 1160–90 (Victoria and Albert Museum). — 5. Hinge, Merton College, Oxford, End of 13th Century. — 6. Door of Horstead Church, near Buntingford. — 7. Door Ornament in Saffron Walden, Essex. — 8. Knocker on the North Door of Puy Cathedral, 11th Century.

Gothic

Smithcraft attained to its highest forms in France during the 13th century. The craftsman felt it incumbent on him to produce decorative smithing worthy of the great works of architecture, especially of the Gothic cathedrals. French style in its characteristic traits, whether in the Middle Ages or during the epoch of *Le Grand Style*, always betrays a rationalistic tendency both in architecture and arts and crafts. There seems to be a metaphysical idea hidden behind the vertical order of typical French cathedrals. Everything is carefully planned according to mathematical rules. Although the French, as northerners, had abandoned the tectonics of classical edifices, yet there is a certain similarity between the French cathedral and the Doric temple due to the harmonious arrangement of structural members, particularly in the interior. Indeed, we may venture to say that the Cathedral Gothic of northern France, where it originated and held sway for so long, is imbued with a classic spirit. French Gothic did not originate so much from the play of an enthusiastic imagination as from a very clear *esprit technique*. It was this spirit that enabled Gustav Eiffel to build his gigantic iron tower in the Champ de Mars for the International Exhibition in 1889.

Clarity and symmetry are the prevailing characteristics of the metal-work on the doors of Notre Dame in Paris, in spite of the exuberance of the ornamental spirals, leafage and tendrils. The main constructional wrought-iron bands, whose component parts are easily traced, are patterned very much along the lines of the composite pillar. From these composite parts the volutes spring, and form definite patterns above and below the bands extending over the panels, and in spite of their manifold curves are yet as restrained as the band ornament on antique vases with their spiral, *ondoyant*, and meander motifs. In spite of the wealth of rich ornament the total impression is distinctly that of unity and stability. Beautiful as the doors of Notre Dame Cathedral are, those wonderful specimens of smithcraft, the grille panels of Ourcamp Abbey, are still more beautiful (Pl. 4).

The lively and dynamic character of the Gothic ornament was developed in the latter part of the Middle Ages beyond the Rhine where more northern conceptions of art prevailed. They had once found expression in involved and fantastic grouping of animal motifs; a trait which is also met with in Irish illuminated manuscripts. The French tendency was to restrain that proneness towards the irregularity of motif inherent in northern art which is so absolutely opposed to the ordered character of classic art. Doubtlessly the Latin character of the French race was seeking expression in this tendency towards restraint of form. The French had already verged towards the Latin cultural sphere.

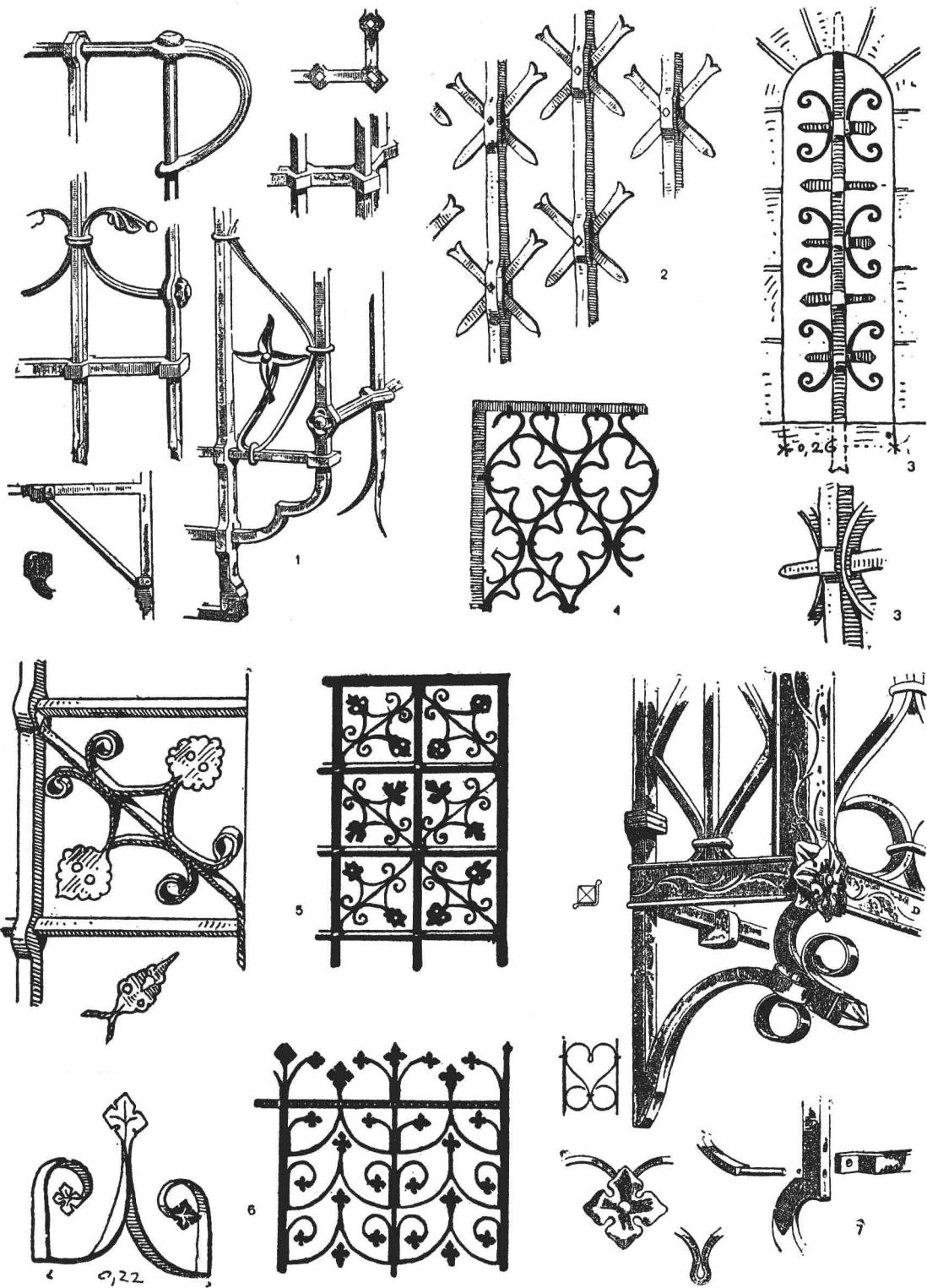
We may say that the decorative ironwork of the French master-smiths reproduced in this volume is Romanic in character, and it is typical of French smiths that, although they employ old and lively motifs, they are yet able to produce the effect of restraint and order. They adhered to the oldest motifs, namely the metal spirals springing from bundled flat bars and terminating in rosettes and leafage, from which the scroll was evolved, and thus established the connection with the antique. In these ornaments, that part of the bar forming the curves is rounded, and then hammered at its ends into leaves and rosettes. The most varied manners of forging are employed, but are kept strictly within the limits prescribed by the requirements of style and material. The most beautiful manifestations of form thus developed from employing genuine material are skilfully fashioned and eminently adapted to their purpose. Herein lies the great difference between them and the methods employed by the materialistic and mechanically-minded 19th century. The sane matter-of-fact spirit of these master-craftsmen saved them from overstepping the limits set by the material, in contradistinction to their inferior imitators who neither possess the vitality nor the genius of the old masters.

When the French employed and enriched the old spiral ironwork patterns in the 13th and 14th centuries the effect was always one of restraint, even when they had not begun to imitate the antique by the employment of scrolls, leafage, grapes, and rosettes. This pronouncedly restrained treatment may be seen in some of the window-grilles in Rouen, in a northern French fender (Rouen Museum), or in the cathedral gate of Puy en Velay dating as far back as the end of the 12th century¹.

Beyond the spirals springing from the bundled flat bars and leafage scrolls, there are other variations such as S-curves and those similar to the curve in a note of interrogation. These motifs, when enclosed in a framework of square bars and connected to the frame by means of square links, are of a very charming appearance. The apertures are extremely narrow, and thus the purpose of enclosure and security is well served and emphasized. The continual repetition of ever-returning motifs betrays a decline in inventiveness, although the technical skill is as good as it ever was. Many of the gates, railings, and grilles with narrow apertures terminate in square rods with spear-heads which look like a row of armed men.

Compared with French Gothic smithcraft of the 13th century, German ironwork appears to be more primitive during the same and immediately following period. The work is coarser and more powerful, and the material is utilized to the limits of its technical possibilities. We may say that the difference between


¹ cf. C. Uhde, „Die Konstruktionen und die Kunstformen der Architektur“, Berlin, E. Wasmuth, 1911, p. 83 et seq.



Mediaeval Railing Joints.

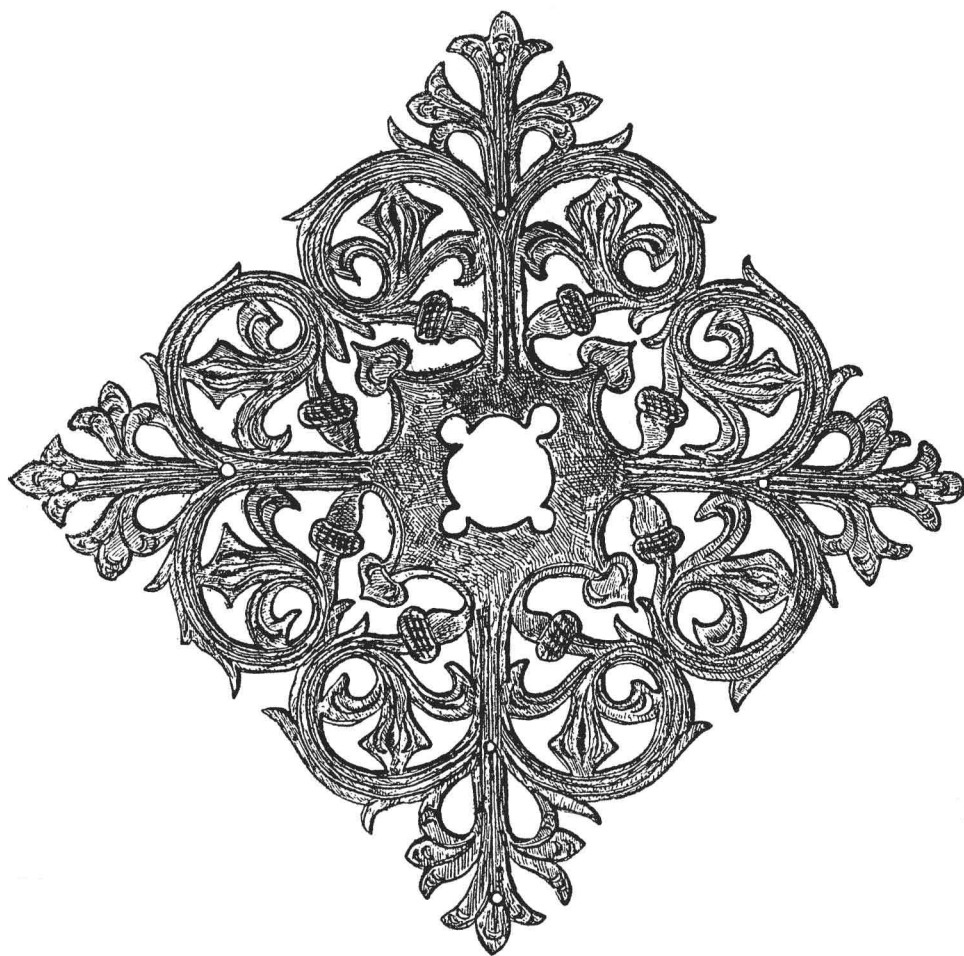
French and German Gothic smithcraft resembles that existing between the graceful French cathedral statue and the massive figures in the German cathedrals; for instance those of the princes and knights in the choir of Naumburg Cathedral. The classic traits are wanting in German art, on the other hand it is extremely vigorous. French art is more urbane and refined, German more rustic. French smithcraft was highly developed at a period when that of Germany was in its initial stages. But some conspicuous works already indicate promise of a high development in the future. German artists were destined to develop the Gothic along original lines, both in architecture and all branches of arts and crafts, hence also in decorative smithing.

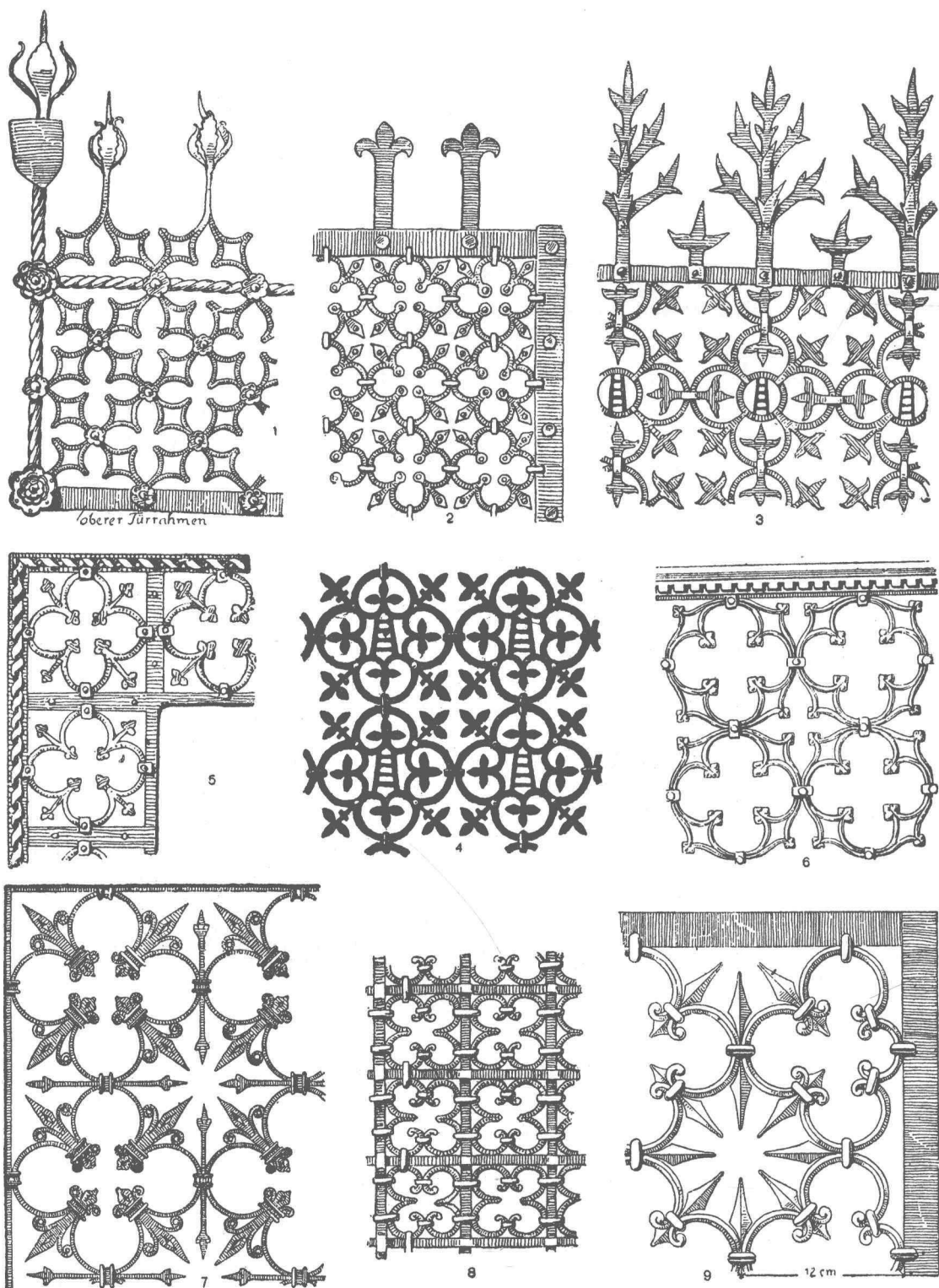
The metal-work on doors, chests, etc., consisted chiefly of hoop-iron. Whereas in France bundled rods terminating in spirals and scroll motifs were already employed, German metal fittings still consisted of separate pieces rivetted to the wood: lattice and trellis patterns with ornamental flattened ends of a more geometrical than florid design. The C-scroll was also much favoured in Germany. Beautiful examples may be seen on a door (beginning of the 14th century) in the transept of the Abbey Church of Maulbron. Still more beautiful examples (beginning of the 13th century) are on another door of the same church. On the latter the rivets are a special feature. The general character is determined by the composition of C-scrolls, and horizontal or crossed bands arranged thus (—) (+).

In England this C-scroll is also often met with in connection with a horizontal bar, as for instance on the door of St. Margret's, Leicester. The horizontal bar is rivetted over two C-scrolls in the following manner:  (13th century). In addition, small double C-scrolls placed back to back are also frequently employed.

Door mountings attained to their greatest perfection on both sides of the Rhine during the Gothic period. The further development of decorative smithing was devoted to railings, gates, and grilles, etc., which call for other viewpoints and ideas. The railings are ornamented with motifs borrowed from architecture, especially from the tracery of the cathedral and church clustered and rose-windows. From now on the round is preferred to the flat bar, but the square is employed particularly for defensive purposes. The spirals, S- and C-scrolls are replaced by the quatrefoil forged in square and round bars. Thus the favourite motif of the stone-mason is adopted by the blacksmith. The development of tracery-work brought about by the inventiveness of the stone-masons is copied by the decorative smiths when ornamenting their gate and door panels. The flamboyant tracery which became popular during the Late Gothic period is also transferred to ironwork, and usually framed in a circle. The earlier severity is replaced by lively motifs. This rayonnant and flamboyant style, which is chiefly found in the 14th and the beginning of the 15th century in French cathedral rose-windows, is also transferred to iron-work. The motifs are often as delicate

as lace or fret-saw work. In many cases the ornament has been sawn or filed into the iron. The details often appear coarse and carelessly executed. The chief aim seems to have been to create a general impression, and this results in a hazy, restless composition. In such cases the bars are hardly distinguishable. Hence ironwork treated in this manner could not continue along the same line of development. Round or square bars placed horizontally or vertically, or combined to form a trellis, supplied the first patterns and form the base for all further modifications.





Italian and French Railings, 13th and 14th Centuries

1. Langeac Church, Chapel Railings, Upper Part, About 1400. — 2. St. Mark's, Venice (gilded), 13th Century. — 3 and 4. Verona, Tombs of the Scaligers, 1300–1380 (Total Height About 2,6 metres. — 5 and 6. Town Hall, Siena, 14th Century. — 7. French Tabernacle Railings (gilded), 14th Century. — 8. French, 13th Century (?), in the Museum of Decorative Arts, Paris. — 9. From Brescia, 14th Century.

Late Gothic and Renaissance

The predominance of the linear pattern in decorative smithing among the transalpine peoples is particularly conspicuous when we regard the more plastically conceived ironwork of the Italians. It is true that the influence of the purely Gothic conception lingered on in Italy till well into the 15th century (Quattrocento). The Italians were also appreciative of the Late Gothic linear pattern for which the employment of iron was so well adapted. But the Italians introduced the architectural element to a much greater extent than did the northern craftsmen. The southern architects had begun to develop a more perfect sense of proportion. And in doing so the great masters, such as Brunelleschi, Leonbattista Alberti, Bramante, and many others, harked back to classical architecture.

A palace or the dome of a church over a central plan was always regarded by the Italians from a purely plastic point of view, and the beautiful proportions of Italian buildings still charm us to-day as do the Doric columns of a Greek temple. It is therefore by no means a matter of surprise that the Italians should treat ornamental details more plastically than the craftsmen of northern countries. The effect of the ponderous window-grilles in the ground-floors of the palaces is essentially plastic. They consist of crossed square interpenetrated bars of considerable dimensions, and are very picturesque in their massive strength. Hence the effect is not produced by the simple line itself, but by the bulkiness of the material employed. In the Gothic period, the chief stress then was laid on linear effects, whereas in the Italian Renaissance decorative smithing had become distinctly plastic, and this is still more the case with Baroque and Rococo ironwork.

Besides the window-grilles, it was above all the finely smithed lamp-holders supporting a cradle and ring, torch-holders, and lanterns that provided considerable scope for plastic treatment of Italian ironwork. For instance the celebrated lanterns on the Palazzo Guadagni in Florence look like small tabernacles, and are minute replicas of the great centrally-planned octagonal edifices. Indeed, as is well-known, the centrally-planned building was the most favoured during the Italian Renaissance, and the superstructure on the dome is actually called a lantern. The lamps on the Italian palace façades are not different in shape to the lanterns crowning the circular and octagonal centrally-planned buildings. Pillars and pilasters, all of minute dimensions, were also the main tectonic elements of these ornamental lanterns. Each of the eight openings are arcaded, and there is also a miniature balustrade of pillars with a richly ornamented rail on top, and small breaks at the corners. The whole is crowned by large spikes, of which the middle ones are straight and the corner ones curved outwards.

In the case of torch-holders, door-knockers, and other similar pieces of metal furniture, casting was often resorted to in order to secure the desired plastic