

# Ironwork

BY

J. STARKIE GARDNER

PART II



VICTORIA AND ALBERT MUSEUM  
ART HANDBOOK



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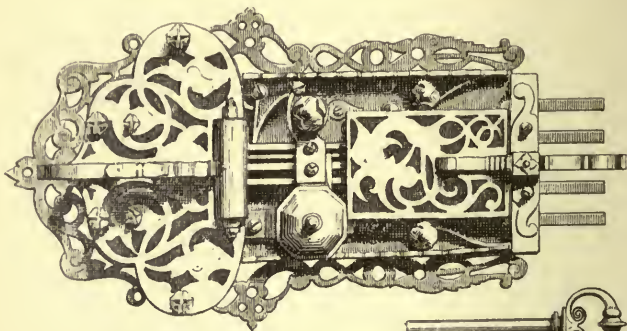




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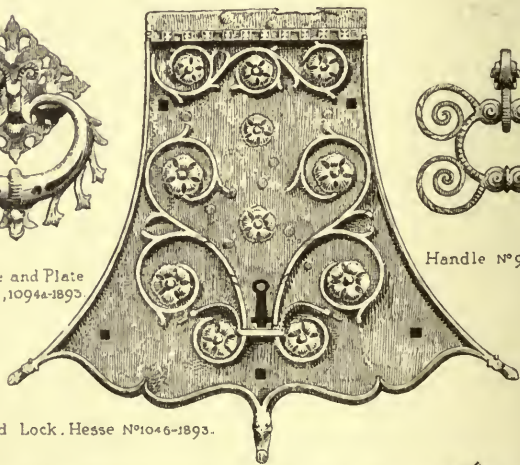




Lock and Key. N<sup>o</sup>1050, 1050a - 1893



Handle and Plate  
N<sup>o</sup>1094, 1094a - 1893



Handle N<sup>o</sup>944 - 1893

Splayed Lock. Hesse N<sup>o</sup>1046 - 1893.



Hinge-Band Westphalia. N<sup>o</sup>847 - 1893.



Hinge-Plate Westphalia N<sup>o</sup>862 - 1893.

# IRONWORK.

## PART II.

*BEING A CONTINUATION OF THE FIRST HANDBOOK, AND  
COMPRISING FROM THE CLOSE OF THE MEDIÆVAL PERIOD  
TO THE END OF THE EIGHTEENTH CENTURY,  
EXCLUDING ENGLISH WORK.*

BY

J. STARKIE GARDNER.

WITH ONE HUNDRED AND THIRTY-FOUR ILLUSTRATIONS.



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## PREFACE.

IN the days of infant civilizations with which the first volume of the handbook on Ironwork was mainly concerned, when might alone constituted right, the smith was a demigod, and the importance of ironworking was paramount. Esteemed for long ages as more than an equal among warriors, he only fell to the level of other craftsmen when war and the chase ceased to be the sole pursuits worthy of manhood. More than common skill in forging weapons of attack and defence might confer resistless power on the brave, while the failure of a weapon at a critical pass might induce a disaster which no courage could avert. The huntsman relied on the smith's work, and with the advance of civilization the woodman and quarryman, the carpenter and mason, became dependent on him for tools. The Germanic races which peopled England held the smith especially in esteem, for however the Roman and Grecian hero might trust to his arms, the northern warrior made them his inseparable companions. The chieftain's sword was, like his standard, well known to his comrades, and its fame was traditionally handed down to posterity; the custom of conferring a distinguishing name on the knight's sword lasting as long as the age of romance and chivalry itself. The great value attaching to these weapons is shown by the will of Alfred the Great, who left a sword of the specified value of a hundred and twenty marks to one of his nobles. The veneration, in which ironwork was held, scarcely died out among Germanic races until the close of the mediæval period.

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The great advance in civilization known as the Renaissance broke with many relics of barbarism, and with it the smith lost his exceptional position among craftsmen. But though divested of its antique glamour, and with its mighty engineering applications yet unthought of, that part of the subject still to be treated has not lost interest, and the prosperity of nations appears to become more and more bound up with that of the iron crafts. Thus with the decay of ironworking, Flanders, Spain, and Italy sank from their high positions, while Germany, France, and Switzerland continued to flourish. The proximate causes of a nation's rise or decay are immeasurably complicated, but, as a rule, the active working of iron seems to be an indication of national strength. This aspect of the subject could not, of course, be entered upon in such a work as the present, but the influence of one nation's ironworking upon that of another, through trade routes, rivalry, or neighbourly emulation, is briefly sketched.

Of all the countries of Europe, Italy exerted the most influence on art in Mediæval and Renaissance times, for, with the seat of the papal dignity at Rome, a constant stream of noble and learned visitors passed to and fro, with the result that every fashion and change in art introduced in Italy spread rapidly over Christendom. So little ironworking was practised, however, that, beyond the armourer's craft, Italy exercised slight influence on smithing. Germany, on the other hand, shut in as in a ring-fence by the Alps, the Rhine, and the Baltic, and on the east by barbarism, developed the most accentuated art peculiarities; the frequent intercourse of its emperors with Italy affecting the gold and silver smiths', the armourers', and other courtly arts, but scarcely even tinging the folk's smithcraft. The German ironworkers, as we have seen, drew their earliest inspirations from France, and from over the Belgian border; and in the seventeenth and eighteenth centuries native design was wholly discarded in favour of French. It is remarkable to find, at this time, that however magnificent the productions of German



smiths might be, they had, in ceasing to be designers, ceased to attain individually to any celebrity, and this at a time when the fame of scores of French smiths, who were designers, was spread over half Europe. The German school of ironwork naturally influenced the bordering countries of Switzerland, Lorraine, Luxemburg, Denmark, and Poland; but, apart from the individual productions of German workmen, its influence cannot be traced in Italy, and we only recognize it to a limited degree in Spain. The Netherlands, the most busy mart of Europe in the Middle Ages and Renaissance, was a common meeting-ground for the arts of all countries, which were dispersed thence far and wide, to affect particularly the crafts of Germany, England, Spain, and even France.

It is to the French, however, that the palm in ironworking must be conceded, whether in point of delicacy of execution, refinement of design, or inventive genius. France has always been geographically in closer touch with the centres of ancient civilization than England, and under Charlemagne its relations with all that was cultured were most intimate. Yet in some arts, particularly metal-working, the Britons, Romano-Britons, and English were the superiors, just as for a time the still more remote Irish were superior to us. The subjugation of Southern Italy by the Normans made them familiar with the most sumptuous arts of Europe and the East, and introduced those arts into France prior to the Norman invasion of England, when our superiority declined. The crusades still further enriched their knowledge, and the superiority of French art over German and English, and even over Italian in architecture as well as in minor arts, became increasingly marked as ages rolled on. This was particularly the case after the Renaissance, and in nothing is this more apparent than in the ironwork which, with lavish and universal patronage, became of the most sumptuous character, and possessed of an extensive literature of its own.

Though every effort has been made to condense and abbreviate

the subject so as to finish it within the compass of the present volume, it has unfortunately been found impracticable to include English ironwork, which thus remains to be treated in a third and concluding handbook.

Since the publication in 1892 of the first ironwork handbook, smithcraft has progressed uninterruptedly, not only in this country but in every other, and the large increase in the number of skilled and even artistic smiths is a most gratifying sign. For certainly no class is more important to the community at large than that of the skilled and independent craftsman, with scope to make his talent and individuality felt, and with freedom to aspire to that rank in the army of workers to which his qualities and industry may entitle him.

All that science and technical education can do to advance the smith is being taught, but no succinct account of the development, bearings, and possibilities of smithcraft, as an art, has been written. The mutual influences of different art-centres upon each other, and the inter-relations of the smithcraft of different countries, have not been traced; neither has any serious analysis of the characteristics which distinguish the ironwork of each country at different periods been hitherto attempted. The large amount of research required for such a work has doubtless deterred any competent writer from undertaking it. The four years that have elapsed since the first part was written, have in fact, scarcely sufficed to collect the data for the present slight pioneer work, which it is hoped, however, may suffice to lay before the blacksmith, his employers, and teachers, so much as it is essential they should have at command, if their craft is to keep abreast of such fellow-crafts as the gold and silver smiths', potters', cabinet-makers', or weavers'.

For illustrations of French ironwork, as well as for much information, the present work is indebted to the courtesy of M. Henri Havard, the talented and indefatigable author of the *Dictionnaire du Mobilier*, and to its publishers, the Maison



Quantin. Though the dictionary itself is a high-priced work, a small volume, entitled *La Serrurerie*, reproduces most of the information, and many of the illustrations, contained in it pertaining to smithing. M. Ernest Bosc has also kindly allowed the use of illustrations from his *Dictionnaire de l'Art*, published by MM. Firmin-Didot et Cie.

Messrs. Batsford, who are now publishing an English translation of Professor Meyer's *Schmiedekunst*, have kindly supplied many of the illustrations of German ironwork. All interested in the subject should possess this inexpensive treatise on smithcraft as practised in Germany. The Austrian Government Printing Office has also again permitted the use of some engravings.

For illustrations of Italian work the handbook is indebted to Signori Alinari, who have permitted the use of several of the engravings which have appeared in their well-known art publications. Finally, some illustrations of Spanish work have been lent by Messrs. Murray from Street's *Spain*.

29, ALBERT EMBANKMENT, LONDON,  
*June, 1896.*



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# IRONWORK.

## I.

### ITALIAN ART RENAISSANCE IRONWORK.

NEVER in the world's history, except perhaps for a brief period in ancient Greece, has art been esteemed as in Italy during the Renaissance. It was not, as in France and England, that a monarch and his court made art a fashion, but the whole people, patrician and plebeian, lay and clerical, were imbued with its spirit. The emancipation from almost Byzantine stiffness was witnessed by a single generation, amazed to see painters and sculptors introduce successively facial expression, natural pose, everyday costume, foreshortening, anatomy, the nude, forcible action, perspective, realistic landscape, contrasts of light : in short, all the effects known to modern art. These increasing efforts were popularly acclaimed, and the artists were not merely patronized by, but became intimate companions of sovereigns, princes of the church, heads of religious houses, nobles, and wealthy burghers, who showered rewards and honours on them, and outbid each other for their services. Had iron-working been a popular art, what glorious results might under such circumstances have been achieved ! But, unfortunately, bronze was the metal favoured, and the decorative value of iron was recognized only so far as the alien architecture of the *Tedeschi* penetrated. Though Transalpine forms were not unknown, the ironwork in Italian buildings is for the most part peculiar. The design most favoured

for upwards of a century, for screens, gates, and balustrades, was the quatrefoil (Figs. 2 and 3), so conspicuous an ornament in the pointed architecture of Venice. There ironwork, in which it formed the leading idea, was largely produced, and thence the design spread, until we find quatrefoil ironwork introduced in the works of such masters as Andrea Pisano, Giotto, and Andrea Orcagna, to whose influence the magnificent borders and crestings, which often enrich it, must be attributed. At first, all was made

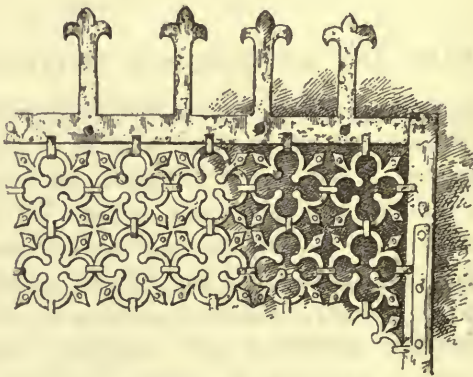


FIG. 2.—Screen to the treasury in St. Mark's, Venice. About A.D. 1300.

from stout plate, or robustly fashioned by the hammer and heat, the rival smiths revelling in the difficulties of their craft until a *ne plus ultra* was attained, when emulation slackened and fashion looked coldly on their work. This progress is most readily seen in the crestings and borders of the more important church screens, from the rude and purely defensive spike or trident of the early Venetian (Fig. 2) and Veronese, to the enriched pricket, blossoming successively into the leafy cluster, the lily, and still more elaborate flower spikes, with the increasingly rich borders and friezes seen in examples at Florence, Orvieto, Prato, and Siena (Fig. 37, vol. i.). Several introduce realistic foliage and fruit, a note of that love of nature at times discernible in the best Italian art; while frequently

recurring badges and inscriptions illustrate, on the other hand, the peculiar egoism which has led to the names of innumerable Italian designers being handed down, while those of French and English contemporaries are unknown.

From a technical aspect, this early work leaves nothing to be

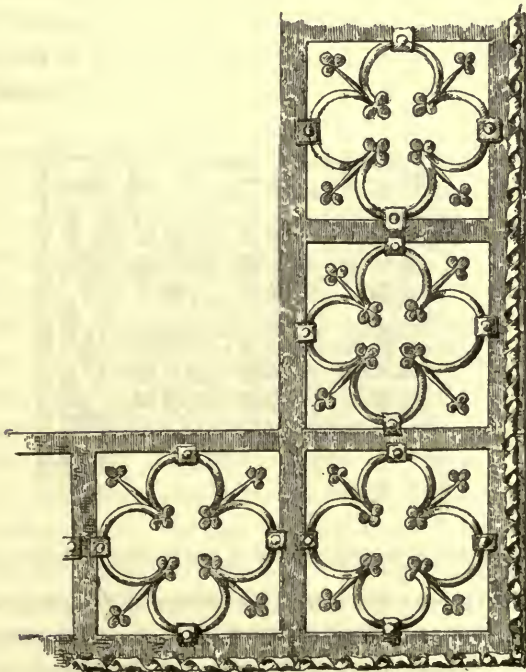


FIG. 3.—Quatrefoil screen, in the Palazzo Publico, Siena. Fifteenth century.

desired. The still older flat work, suggested by Eastern geometric lattice-work (see vol. i.), was at the same time not entirely discontinued (Fig. 4). In this the designs were at first produced by piercing thick plates of iron, but afterwards out of wide and thin bars and plates, with the broad faces placed vertically. The earliest quatrefoil screens were, in fact, also produced in this manner. No finer examples of flat work can be seen than the

screens in the Spanish chapel of Santa Maria Novella, in Florence, produced, perhaps, with other decorations, in 1366.

The study of the antique was, however, the real road to fame in Italy during the Renaissance, when, unfortunately, the reverence for ancient precedent practically precluded the use of decorative ironwork in architecture. Thus, though much constructive use was made of it, as in building the dome of Florence Cathedral, scarcely any decorative work appears in the buildings erected during the classic revival. The great architects ignored

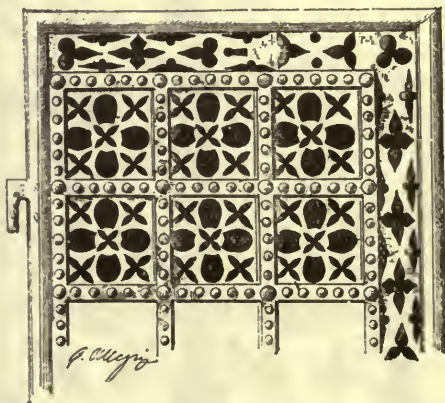


FIG. 4.—Fifteenth century plate-work screen, from the Marini collection, Venice.

it, since its use was not within the canons of Vitruvius, which for a time they entirely followed. Palladio, indeed, limits the fitness of iron to cramps, spikes, nails, hinges, bolts, chains, locks, and the like objects. Still, protective gratings of vertical iron bars must have been used in Italy from very ancient times, and there, as elsewhere, it must have been apparent that passing these at intervals through horizontal bars gave a very material increase of strength. The confinement and exposure of enemies in iron cages in Italy to gratify revenge, carries back the use of the metal, for this purpose, to the thirteenth century. The forbidding gratings to the ground-floor windows of palaces were first



introduced in Florence by Walter de Brienne, Duke of Athens, during his brief rule in 1343. Pliny, however, mentions that windows were always barred in his time on account of the numerous burglaries committed. Perhaps merely for variety, perhaps for greater resistance, they were sometimes threaded diagonally, especially in Venice, where old pictures show most of the houses with windows so guarded. It does not appear, however, that any decorative quality was recognized in such gratings before 1483, when a richly carved marble chapel screen in San Petronio, Bologna, was filled with panels and gates, formed of simple round bars, threaded diagonally in the German fashion. A second chapel, the Barbazzo, of slightly later date, has a screen of flat twisted bars, similarly threaded, under a cornice enriched with iron mouldings, rosettes, a laurel border, and inscriptions. A bronze screen, like netted rope, made by Verocchio, in 1472, for the tomb of Piero and Giovanni De' Medici, in San Lorenzo, Florence, may have suggested the twist. The projecting, so-called "kneeling," window gratings were introduced by Michel Angelo, in 1506, he not disdaining, according to Vasari, to himself make the model for some for the Medici, afterwards Riccardi, Palace in Florence. Excellent examples are in the cloisters of San Lorenzo, which he frequented. Bronze, however, had the preference, and, away from the Gothic influence, iron was regarded, at any rate, for decorative purposes, as, at best, but an inferior substitute. Few, if any, monumental works were designed for execution in iron, but purely iron designs, like the quatrefoil screens of the Sacra Cintola in Prato Cathedral, or of Or San Michele, at Florence, were even carried out in bronze, when their producers were extolled, while the names of ironworkers are rarely recorded.

The striking exception needed to prove a rule is found in that most capable smith and artist, Nicolò Grosso, who was born in 1455, and died in 1509. Vasari relates that he was called, "Il Caparra" by Lorenzo De' Medici, from his habit of demanding payment in advance, and adds that he was unique in his calling,

without an equal in the past, and probably not to be excelled in the future. Conspicuous among his productions are the celebrated *fanali*, or lanterns, still remaining at the angles of the old Strozzi and Guadagni Palaces in Florence. These lanterns differ in design, and in speaking of them, Vasari says that in each are to be seen cornices, columns, and capitals in iron, constructed with the most surprising and masterly skill, and that no modern artificer has executed works in iron so large and so difficult, with knowledge and ability equal to that displayed by Caparra. The numerous finely forged banner-holders and horse-rings are by the same hands. *Fanali* yet remain on the old Pazzi, afterwards Quaratesi, Palace by Brunelleschi, the Borgherini by Baccio d'Agnolo, and the Riccardi, once Medici, built for Cosimo Vecchio, from designs by Michelozzi. As these, and the banner-holders, were only allowed as a mark of great distinction to the few, they are generally richly worked, and it is a happy circumstance that the South Kensington Museum possesses no less than four examples (Fig. 5) of them, which, if simpler, are not inferior in design to those of the Strozzi. A few others are still to be seen in Florence, and in such towns as Lucca, Perugia, etc., where similar customs prevailed. The banner-holders, often combined with horse-rings, are less rare, and are sometimes simple, or, like those of the Strozzi, in the forms of sea-horses, sphinxes, devils, or grotesques. They are frequently of bronze. A picture by Sandro Botticelli, who died in 1510, shows some exquisite specimens in polished iron, holding large branches of olive, myrtle, or orange, at a wedding-feast in Ravenna. Less distinguished were the long, slender, serpentine brackets with dangling horse-rings; and the shorter snake-like heads gripping rings with incised ornament, of the Bargello. These were, perhaps, the kind of wall-rings which the great strength of Leonardo da Vinci bent like lead. With these and the door-knockers, usually plain and severe, but occasionally of richer work, and the large nails that, in such towns as Genoa, Milan, and Padua, sometimes stud the doors, the exteriors of the

sixteenth-century palaces of Northern Italy were frequently

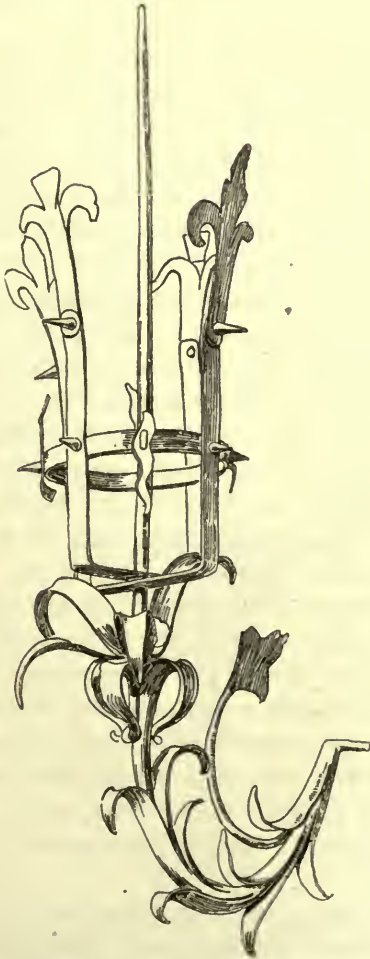


FIG. 5.—One of the four cresset light-holders, *fanali*, in the South Kensington Museum. North Italian, fifteenth century.

graced. Vanes and finials in iron are very unusual, but a particularly picturesque banner-shaped finial, with cross, supports

the bell on the turrets of Colleoni's castle of Malpaga. In many *piazze* and courtyards, wells, with charmingly simple arching supports for the pulleys, may still be discovered.

The interiors were warmed by braziers and lighted from candlesticks such as those so well represented at South Kensington. In the larger tripods (Fig. 6), dating back to the fourteenth century, the chafing dish is supported on brackets springing from the central stem, and ending in dog-like heads gripping rings; the spandrels are filled with thick plates, pierced into foliage surrounding a shield, while a few strong leaves are riveted to the stem, relieved with forged knobs, and standing on three claw feet. A specimen, almost a facsimile of the one figured, is a well-known object in the Casa di S. Caterina, Siena, but ours has in addition a standing bracket and hook to suspend a lamp or perfume-dish. A second well-known form is similar, but much smaller and more delicate, and without plate-work, being designed to take a basin instead of a flattened dish. A third type has the stem, either plain, or dressed with robust welded leaves and flowers, without brackets, dogs' heads, ring-handles, or claw feet. The legs to the tripod are sharply bent, with a small tuft of iron ribbons welded in, a peculiar feature shared by many objects that are probably by the same hand. The fine specimen in the Museum combines, with the brazier, a high removable candelabrum of two branches, and a hook surmounted by a spray of welded flowers. The high candlestick (Fig. 7) in the Museum, from Pistoja, is another splendid example of this work, which was doubtless produced in Florence, or its vicinity, during the fifteenth or sixteenth century.

Andirons seem not to have been indispensable in Italy, except perhaps, in the north, and were, until the seventeenth century, absent from all but the larger living- and reception-rooms. For the most part, they were simple and massive forgings, the front consisting of a strong vertical bar, incised with some ornament, on two spreading feet, and finishing, as in France, in a crook o





FIG. 6.—Fourteenth-century North Italian brazier. In the South Kensington Museum.



FIG. 7.— Candlestick from Pistoja, in the South Kensington Museum. Early sixteenth century.

bronze knob. The vertical bars are sometimes planned to hold a spit. An anecdote of Nicolò Grosso, in Vasari, shows, however, that much more richly forged andirons must have been in use. In Florence and Venice, finely modelled bronze dogs abound, often the work of celebrated artists. Long slender fire-irons, like some in the Bargello, most beautifully forged, with delicate pierced work, and often finishing in small bronze figures, gave a charm to Italian hearths, in which, moreover, the embers were sometimes confined by low iron surrounds, bent like a cupid's bow, with perhaps some chiselling, a mask, or other slight embellishment in front.

Italian locksmith's work, which, from its reputation among collectors, we should expect to find most beautiful, is quite disappointing, since the superb specimens of keys and locks, so long regarded as of Italian workmanship, are now known to be French. Indeed, a mere glance at Italian interiors, and the cabinets, *cassoni*, and other movables contained in them, shows that the locks and hinges were concealed and little esteemed. Some localities in the north, such as the valley of Aosta, where French fashions obtained, are unimportant exceptions, of which the casket in the Cluny Museum (Fig. 8) is a good example.

A peculiar kind of *intarsia* chest, produced, it is believed, in South Italy, or Sicily, but possibly Spanish, was, however, loaded with thin and very delicately pierced sheet-iron, tinned, and resembling in design the richest of the German pierced thistle-pattern lock furniture. It can be distinguished by its greater regularity, and the fact that the piercings are always circumscribed by some line, a circle or quadrilateral, to enable the iron-work to be let in below the surface of the wood, while German work was applied on the surface, and branches freely. The lid fastens with a hasp, secured by a lock on the front of the chest, mounted on a square plate, produced at each angle into a large circle of pierced work, fixed by a multitude of small nails. The handles at each end are attached to plates

with similar circles, and the hinges, angle-plates, etc., are as richly pierced. The designs are based on flamboyant tracery, modified almost beyond recognition, and also introduce rows of small, pointed, Saracenic-looking window openings. A chest in the Italian Court, at South Kensington, has its ironwork perfect, and there are several detached locks and plates in the ironwork collection.

The genuine Italian key is usually of flimsy work, the barrel being merely of sheet iron, lapped and soldered, with a circular

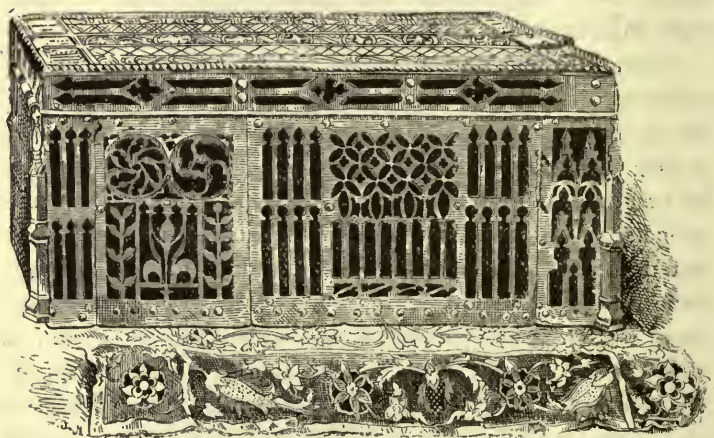


FIG. 8. — Pierced casket. In the Cluny Museum. North Italian, late fifteenth century.

bow, fitted with Gothic tracery formed of morsels of bent iron held together by solder, to imitate the solid pierced tracery of France. The circle is surmounted with something like a coronet, or only a ring, and the wards are often numerous repeats to act on a spring lock, as in Germany. Italian heraldry shows this to have been the recognized type of key, at least in the north. Rather clumsy imitations, which probably originated in Italy, of French Renaissance keys, are common in collections, and in the Industrial Museum, at Rome, is a large embossed lock with figures similarly inspired.

The poverty of the lock-work is the more remarkable, because Italian steel and armour have been renowned since, at least, the beginning of the fourteenth century, when Bolingbroke sent to Duke Galeazzo, of Milan, for the armour in which to combat the Duke of Norfolk. Louis le Hutin's inventory, in 1316, comprised armour from Lombardy; and Italian armourers were established in Paris as early as 1332. In the following century, we find both Louis XI. and the Duke of Burgundy settling Italian armourers in their dominions, and a heavy convoy of armour on its way from Italy to the Duke of Brittany seized by the King. At a great Spanish tournament held in 1434, only Italian armour and weapons were permitted. In his brief day, Jack Cade proclaimed that all "Lumbards and strangers being merchants, Genoese, Venetians, Florentines, and others, this day do draw them together, and do ordain for us twelve harness complete of the best fashion, twenty-four brigandynes, twelve battle-axes," and so forth.

Milan especially had always maintained its claim to be the metropolis of armourers and steel-workers. Matthew of Paris mentions that, in 1237, it was able, with its dependencies, to turn out six thousand armed men on iron-clad horses; and its power of production was such in 1427, that, after the battle of Macado, it furnished, within a few days, four thousand suits of armour for cavalry and two thousand for infantry. Henry VIII. sent to Milan to purchase five thousand suits of "almain rivets." At what precise period Milanese weapons and armour were first ornamented with engraving and damascening is unknown, but etching was introduced for this purpose in the sixteenth century. Alexis the Piedmontese has left copious recipes for the armourer, in which the processes used in the sixteenth century are described, including etching, gilding, bronzing, blacking, encrusting, and embossing. As armour was rarely stamped with a maker's name, it is difficult to discover where, even in what country, some of the finest suits were made. The Negrolos, who



carried on work for more than a century, are among the most celebrated of the Milanese armourers; and Filippo, an engraver of figures and foliage on arms, is known to have made several suits for Francis I. and Charles V. A fine breast-plate from the Magniac collection is signed "*Paulus de Negrolis*," and a helmet of the same suit was exhibited with it at Kensington in 1862. The suit of Henry VIII., in the Tower, with the order of the garter engraved round the neck, has the mark of Missaglia, a Milanese, on the bascinet. Hieronymus Spacini, of Milan, made a sumptuous target for Charles V., in 1550, adorned with no less than forty-eight engravings, gilt, on niello grounds. The superb swords of Lannoy in the Musée d'Artillerie, and of Charles V., in the Ambras collection, are by Antonio Picinino, who died in 1589. His two sons, who were employed by Alexander Farnese, chiselled iron in relief like silver, and were expert at *alla gemma*, or damascened work. Several fine swords exist signed by Frederico Picinino, as well as some by Antonio. The Farnese and Gonzaga also employed Giovanni and Antonio Biancardi, Filippo Negroni, and Bernardo Civo; while Antonio Romero worked for Alfonso of Este. Batiste of Milan was armourer to the King of Navarre, in 1573, and Pompée, a Milanese, was fencing-master to Henri III. The magnificent brown shield and helmet, with silver medallions and gilt arabesques, in the Bargello, are by Gasparo Mola, a Milanese from Como, who died in 1641, and the splendid bucklers at Windsor, Turin, and Madrid, so long attributed to Cellini, are quite in the style of Milanese artists. Cellini distinguishes the Tuscan damascening by the use of the acanthus; while the "Lombards construct very beautiful patterns by copying the leaves of briony and ivy in exquisite curves, which are extremely beautiful to the eye." The names of Giovanni Pietro Figino, Bartolommeo Piatti, Martino Ghinello, Francesco Pillizona, F. Bellino, Carlo Serico, and Pompeo Turcone, Milanese damasceners, have been handed down. Much of the fine armour worn in England under Elizabeth, and

in Spain under Philip II., was Milanese. Brantôme says that the court of France highly approved of the engraved morions and corslets of Milan, which could not be produced with the same perfection in France. The whole of the infantry of Strozzi and de Brissac was armed with most elegantly engraved armour of Milan; and Strozzi compelled his men to use Milanese harquebuses, which were coveted by the Duke of Guise for his light infantry. The Milanese steel-workers did not entirely confine themselves to armour; and the engraved, etched, and damascened caskets attributed to them are innumerable. The extraordinary mirror (Fig. 9) and chess-table in the South Kensington Museum, bought from the Debruges and Soltikoff collections, with many cabinets and other similar pieces, are said to be Milanese of about 1540, though on no exact authority. Unlike the armour, they are more remarkable for the elaborate richness of their gold and silver damascening and inlay, and their chiselled figures of bronze or iron, than for beauty or taste.

Brescia is another of the Lombardic towns that has been famous for centuries for its steel and arms, especially firearms and cutlery. We find Henry VIII. requesting permission from the Doge of Venice, in 1544, to purchase fifteen hundred Brescian harquebuses, and over a thousand suits of horse- and foot-armour. Three thousand specimens in the Turin collection were bought from the Martinengo family of Brescia, including four sumptuously engraved and damascened suits worn by them in the sixteenth century. Francis I. ennobled Serafino da Brescia in return for a gala sword, which he lost at Pavia; and, according to Yriarte, thirty-two swords of Hercule De' Fideli, who worked for the Duke of Ferrara, and engraved the sword of Cæsar Borgia, are still in existence. The superb pistols, signed by Lazarino Cominazzo, Brescia, of which the Kensington Museum possesses fine examples, are well-known to collectors. Rich locks were supplied by Giovanni Borgognone, and barrels are signed by Giennetti, the Francinos, and Francisco Bigioni.

When Evelyn visited the city, in 1646, he found it inhabited



FIG. 9.—Damascened mirror. In the South Kensington Museum. Believed to be Milanese by artists, “every shop abounding in gunns, swords, armourers,”



etc. Like Milan, the valley of Serravalle, and the iron district of Belluna, almost on the Tyrolese frontier, where the mysterious Andrea Ferrara is said to have had his forge, Brescia came largely under German influence, so that all unsigned steel-work is difficult to locate. Thus the "*Franciscus Garbagnani, Brixia, fecit,*" on the magnificent suit of Louis XIV., with engravings of the conquest of Flanders, is the signature of Franz Garbagnauer, a German, who is traced in Brescia down to 1688. Evelyn also observed that "most of the workmen came out of Germanie."

Verona was celebrated for daggers, and Pistoja gave its name to these, and perhaps to pistols. A magnificently damascened shield is signed and dated by Giorgio Ghisi, who worked at Mantua from 1523 to 1554. A sword marked "*Petrus Ancinus Regiensis,*" 1661, shows that an atelier existed at Reggio. Genoa, whose armoury in 1669 contained thirty thousand good weapons, also produced them. The manufacture of muskets or hand-guns can be traced to Perugia as early as 1364; and the infantry cuirasses of Pisa, engraved or etched with ribbon-like bands, between 1590 and 1630, are celebrated.

Florence, however, was the great rival of Milan, and we find Wolsey negotiating with a Florentine for "two thousand complete harness of Almayne rivettes at sixteen shillings per set;" and when visited by Evelyn, it contained arms for seventy thousand troops. The morions and arms of the guard, embossed with the Medici *fleur-de-lis* and sprigs, granted by Louis XI. as a symbol of alliance, are still preserved. The Armourers' Guild was important enough to commission the great Donatello to make a statue of St. George for them in full panoply. If we may believe Vasari, it was the Florentine goldsmith Michelagnolo, father of Baccio Bandinelli, who invented the embossing of steel on the pitch-block, and produced a suit for Giuliano De' Medici. He also relates that Francisco dal Prato di Girolamo embossed and inlaid steel with gold and silver representing foliage, figures, or whatever else he pleased, and made an entire foot-soldier's

suit in the fashion of Damascus for Alessandro De' Medici. Cellini writes that the Tuscan damascening imitates the leaves of acanthus, commonly called bear's-foot, with its stalks and flowers, curling in divers wavy lines. "Into these arabesques," he continues, "one may insert figures of little birds and different animals, hints for which may be taken from wild-flowers, as snap-dragon, which must be combined and developed with the help of fanciful imaginings by clever draughtsmen." A very curious manuscript of 1642, by an armourer named Petrini, relates that a Frenchman, renowned all over Europe, Guillaume Lemaître, was the grand master armourer of Florence in his time, and that Cosmo II. took great pleasure in watching him work iron and steel both in relief and in intaglio. He produced an iron casket about fourteen inches long so wonderfully embossed with figures, cornices, etc., that it was valued, according to Petrini, at the incredible sum of a million in gold. Of the Florentine armourers, the Gamberti emigrated to France, and were lodged in the Louvre by Henri II.; but scarcely any other names are known, and very little existing armour has been absolutely identified as Florentine, except perhaps the superb suit of Philip II. at Madrid.

Farther south little armour was produced, unless at Naples, though damascening of a coarse kind was practised in Rome, and the signature "Rom," on the suit of Louis XIII., is supposed to indicate that city.

At least two Italian royalties are stated to have been accomplished smiths, but both were of the house of Savoy, which was in part French. Duke Emanuele Filiberto, surnamed *Tête-de-fer*, was a good armourer, both as smith and as inlayer of gold and silver; and Carlo Emanuele I. had a forge in his gardens at Turin, and was proud to exhibit his skill in forging barrels for harquebuses and other arms, as testified by Brantôme, who saw him at work. On the other hand, few artists of high renown worked at, or even designed for, armour.

Cellini only claims, as a trifling exception, to have tried his hand at damascening for a short time at Rome. Leonardo da Vinci designed some weapons, particularly a set of halberds and partisans of fantastic form. A sword at Turin is signed Donatello, and Caravaggio and Polidore designed and possibly even executed some sword-hilts. Fig. 10 illustrates a richly chased halberd of the sixteenth century.

Venetian art pursued its own course, and, like Venetian policy, was always somewhat alien to that of the rest of Italy. Its relation to the east controlled its taste, which affected richness, and this was especially apparent in its ironwork, which often set the fashion to the mainland. Already, in the twelfth century, its corporation of smiths was numerous, and under the especial patronage of the doge. About 1376 it introduced the use of cannon into Italy. Its armour differed from that of other Italian states; and though even outlandish in forms, its sallads, morions, round bucklers, battle-axes, partisans, maces, glaives, and anelaces, known as *Cinquedea* or *lingue di Bove*, are prized by collectors. The richness of the decorations, which lean to the Oriental, is displayed in numerous existing specimens, and in portraits of Venetian nobles; and its prodigious quantity is attested by the fact that the arsenal contained in the seventeenth century arms for eight hundred thousand combatants. One of the latest suits of complete armour made was presented to Louis XIV. by the Venetian Republic.

To the Venetians we probably owe the introduction of the art of damascening into Europe, whether the Italian name for it was derived from Paolo Azzimio, the first Venetian to practise it, or, as Cellini claims, direct from the Arabic *al agem*, Italianized into *alla gemma*. In either case, real Damascus work was always distinguished as *lavoro alla Damaschina*. Vittore Gambello, goldsmith and sculptor, who lived from 1484 to 1523, was celebrated for the finest armour, and Paolo Rizzio for damascened caskets and mirrors. The caskets in particular are



FIG. 10.—Carved and chased halberd. Italian. Sixteenth century.

often of most graceful form, delicately chiselled with pilasters and cornices of pierced work, and panels arabesqued with gold

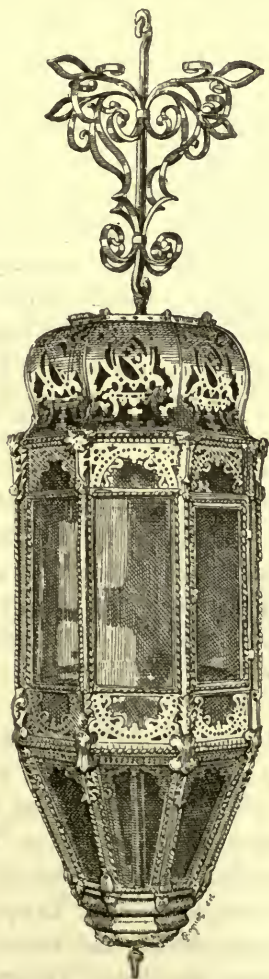


FIG. 11.—Gilt Venetian lantern. In the Cluny Museum. Seventeenth century.

or silver inlay. Before the close of the sixteenth century great gilded lanterns (Fig. 11) begin to decorate the stairs and corridors



of palaces, and to adorn the stately galleys of the nobility. Many are of imposing size and magnificent with leaves, banners, borders, figures, embossing and piercing. Though the workmanship is poor, and the designs often loaded, they are models of grandeur, seldom wholly of iron, but like the rich ornaments at the mast-heads, often partly of lead and sometimes wood. Pops and prows are enriched in the seventeenth century with dragons and other monsters, birds and foliage, generally gilt. Smaller vessels finished in a picturesque volute of iron pierced and incised with the richest figured arabesques. These volutes were thin, and kept brightly polished like their formidable-looking descendants, which still give character to the prows of the Venetian gondolas. Two fine specimens (Fig. 12) of these polished seventeenth-century prows are in the South Kensington Museum.

Pictures by Carpaccio, such as the story of St. Ursula, 1490-95, and St. Jerome, 1502-11, show an apparently considerable use of metal in the furniture of rooms. The desk at which St. Jerome writes, supported on a tripod and two brackets, a table in the background on folding supports, the bench on which he sits, and an armchair, seem partly of metal, and are studded with large nails. A metal astrolabe hangs from the ceiling, and the chamber is lighted from the wall by a candle in a stiff forearm and clenched fist, a form of holder also met with in Spain. The posts to the bed of St. Ursula seem too slender for wood, though painted red, and Evelyn, a century or more later, says that the bedsteads in Italy are for the most part iron gilded, "since it is impossible to keep the wood ones from the chimices." Few, owing to their bulk, have found their way into collections, but M. Des Tournelles has in Paris a perfect example of about Evelyn's date. It is otherwise with the light iron *lavabos* and brazier stands which have been dispersed in large quantities. The great majority of these are very simply constructed, consisting of a fairly stout tripod of bulging outline drawn in and clasped by a band near the base, dressed up with light scrolls and tendrils, and sometimes flowers,



attached by thin iron bands or collars. Occasionally they are more elaborate with leafy sheet iron (Fig. 13), and even moulded bronze enrichments, and they are formed not infrequently to hang on a wall. Branches of similar work to fix against the wall and hold



FIG. 12.—Prow of Venetian gondola. In the South Kensington Museum. Seventeenth century.

candles, were used in nearly all churches and palaces. These range from the simplest possible forms to elaborately scrolled branches, and clusters of lilies and other flowers. Pendant chandeliers in iron were rarely used in Venice, but are occasionally to be met with, and are of pleasing and simple forms. The rich effect of

the Venetian lamp-chains, produced by the simplest methods, is known to all. The fine and handsome appearance of gilded Venetian ironwork, and its small cost, led to its being exported



FIG. 13.—Venetian tripod. Seventeenth or eighteenth century.

*IR*

somewhat largely in the last century. Perhaps the richest iron light-holders in Italy, however, are at the Fillippi Palace, near Arezzo, and consist of lantern-brackets lavishly decorated with

wheat and barley ears, wild flowers, and fruit. They are apparently local work.

The screens, balconies, and balustrades associated with Venetian architecture were less severe than in the rest of Italy, though, as classic influence prevailed, the great palaces, built strictly on Italian lines, had windows grated with the usual rectangular or diagonal crossing bars. The preponderance of the latter especially is seen in some of Canaletto's views, but more decorative ironwork was never wholly out of fashion. When the Gothic quatrefoil fell into disuse, it gave place to screens of C scrolls

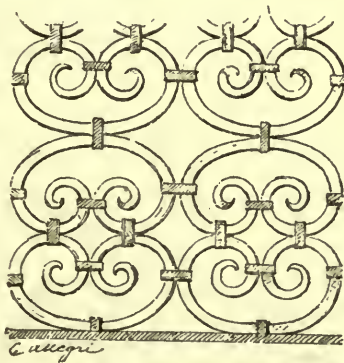


FIG. 14.—Screen from the Scuola dei Laneri. Venetian. Seventeenth century.

(Fig. 14), probably introduced rather with the desire to save labour than to improve the effect. Perhaps the endeavour, in the Vendrami Palace by Pietro Lombardi, 1481, for example, to reproduce in iron the conspicuous bronze scale-pattern gratings of St. Mark's, may have led directly to this, for no smith could be set to copy them without feeling that he would save labour and produce a more decorative effect by scrolling the ends of his bars, and thus converting the scales into C scrolls. We see in the Manzoni and other palace windows of the fifteenth century, gratings of C scrolls placed horizontally, as if to reproduce the scale effect; the step from these to C scrolls placed vertically, and

in all other directions, is not merely natural, but inevitable. The task of filling in round or pointed window-heads with a scale or a geometric pattern like the quatrefoil, must have resulted in further departures, as we see actually happening in the semi-circular-headed gratings of the lovely *Tempietta* of Lucca, 1484. Even the attempt to fill arched window-heads with C scrolls would inevitably suggest new lines of design. In fact, the impossibility of adapting any geometric pattern designed for a rectangular space,



*G. Allegri*

FIG. 15.—From the Palazzo Gradenigo, Venice. Seventeenth century.

to a semicircle, without modification; the ease with which this can be effected by slight alterations of shape; and the exercise of ingenuity thereby forced on the smith, would alone have sufficed to inaugurate a new school of ironworking.

There can be no doubt, however, that its development was soon further accelerated by endeavours on the part of the smith



to imitate the lines of the arabesque, so familiar to damasceners of iron, with the result that Venice suddenly abounded in the

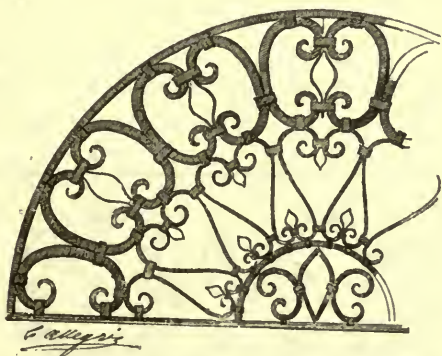


FIG. 16.—From San Boldo, Venice. Seventeenth century.

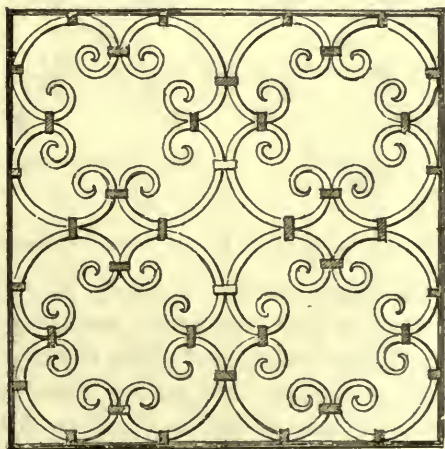


FIG. 17.—Screen from the Palazzo Contin, Venice. Sixteenth century.

sixteenth century with beautiful lace-like ironwork, which spread over the rest of Italy (Figs. 15 and 16). It is difficult to fix the

date of its first appearance, but in instances such as Sansovino's loggia to the Campanile, 1540, it appears to be contemporary with the building. Sansovino was bold in his use of iron; he employed it on the largest scale in constructing his fireproof Zecca or Mint. In palaces of the sixteenth century, in which the rectangular windows are filled with horizontal C scrolls, and in the Tiepolo, in which the same are vertical, the semicircular lunettes

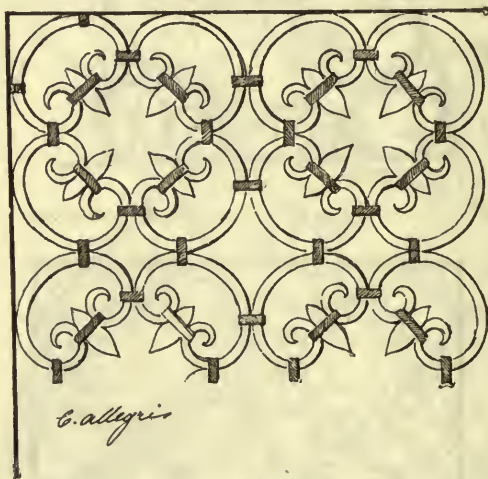


FIG. 18.—Screen from the Palazzo Marcelli, Venice. Sixteenth century.

have, obviously, merely modified C scrolls, pleasingly arranged and nothing else; but the semicircular gratings over the water entrance to the Doge's Palace, and of San Giorgio dei Greci, are as frankly arabesque designs. The window gratings to St. Giorgio degli Schiavoni, and those in Figs. 17, 18, 19, are fine examples of the not uncommon reversion to the quatrefoil, late in the sixteenth century, when they were formed of separate C scrolls tied together, and modified where needed to fit semicircular heads. Figs. 20 and 21 present typical modifications of C-scroll screens. Yet another and more severe type of design is developed from the fitting of the common cross-barred screen into semicircular



windows when it was often embellished with slight scroll-work about the radiating point, and between the straight bars near the

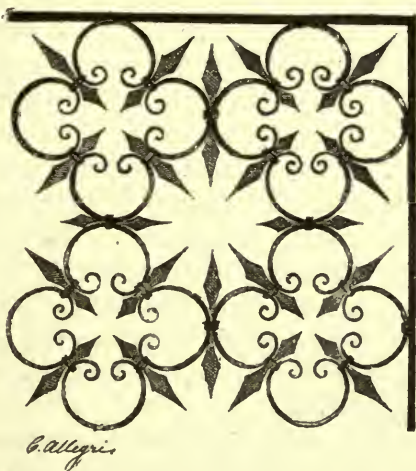


FIG. 19.—A seventeenth-century screen. In the Guggenheim collection, Venice.



FIG. 20.—Screen in the church of San Fosca, Venice. Seventeenth century.

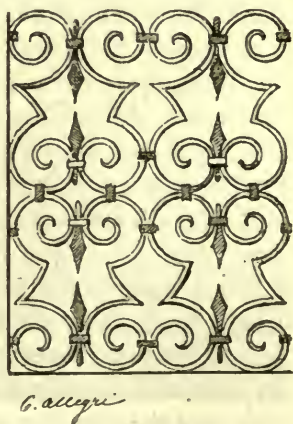


FIG. 21.—Screen from a private house, Venice. Seventeenth century.

periphery. That the spread of Venetian ironwork to the mainland was rapid is shown by one of the finest examples—the

screens to the beautiful courtyard of the Bevilacqua Vicenzi Palace, in Bologna, built by Bramantino about 1547. These are remarkable for the boldness of the badges, and the skirting of foliage, borrowed, no doubt, from the rich borders of the older quatrefoil type. Recognizing the migratory habits of the artistic and industrial classes of Italy in the sixteenth century, it is not surprising that scrolled screens are not peculiar to Venice alone, even at this date, but are to be found in Verona, Milan, Florence, Lucca, Pisa, and, indeed, probably in every town as far south as Rome, sometimes even beyond. The sixteenth-century specimens are distinguished for massive and good work, and excellence of design, and it is unfortunate that the relative value of these earlier pieces has not been sufficiently appreciated by collectors, nor even in museums, which abound with the later and more flimsy ironwork.

At what precise moment floral work was introduced into the scroll designs it is impossible to determine. With the old screen crestings of Florence and Prato at hand, it is but natural to meet with flower-work in sixteenth-century semicircular lunette-fillings at Lucca, especially as these bear evidence of being evolved, perhaps independently, from the gratings of their own *Tempietta*. At all events, as in damascening, point-lace, or embroidery, the value of some solid masses must soon have been felt, and hence rosettes and leaves were introduced, the beauty of ironwork greatly depending on the well-balanced contrast of light open-work and mass (Fig. 22). The inweaving of foliage and flower-work into geometric ironwork opened new fields. A very beautiful effect was obtained by sheathing the scrolls with thin grass-like leaves, and adding liliaceous flowers. Other examples introduce flowers of all kinds with naturalistic treatment; and, again, we find others with only the acanthus and most conventional classic foliage. As the influence of Vitruvius waned, Italy presented an increasingly rich field for development, and variations increased apace, less fettered by tradition and more capricious than in any other

country. Unfortunately, the new rivalry became confined to design, and not at all to execution, and, as time wore on, the



FIG. 22.—Screen from the Peyre collection, in the South Kensington Museum.  
Seventeenth century.

work degenerated and became flimsy, the flowers and leaves being of thinnest sheet iron, and the whole ill put together. A folded



ribbon-like treatment, producing the most effect with the smallest effort, was much favoured; it was scrolled up, bent into flowing and other outlines, and embellished with little spirals or twists, made and pinned on, or tied together without heat. If a want of solid points was felt, small bosses, swellings, mouldings, vases, and masks were cast in brass and applied. Where Venetian influence



FIG. 23.—Screen from San Giacomo dell' Orto, Venice. Late seventeenth or early eighteenth century.

was maintained, we often find a rich intercrossing tracery design (Fig. 23), derived either from the East or from Germany, the work, it may be, of a particular school of smiths. Work is often by German hands under Italian influence, as in the beautiful screen in Sta. Theresa, Mantua, or the altar-rail of S. Francesco, Ferrara, which, though graceful, are threaded and welded in the most workmanlike fashion. Sometimes purely naturalistic, like

trellised vine-work ; sometimes wholly geometric, with great repetition ; now closely worked in graceful symmetry ; or, again, carelessly open ; the immense variety of design lends a charm to Italian seventeenth- and eighteenth-century ironwork, but baffles any attempt to trace and classify its forms. Even the absorbing fashion of Louis XV. did but add new elements of design without suppressing the old. Light, cheap, brightly painted and touched with gold, it became exceedingly popular, and was applied to every possible use, even when the country was at its lowest commercial and political ebb. It is work of this class, which still abounds from the Alps to the remotest corner of Sicily, that alone falls to the indiscriminating purchaser, and from it our prevalent ideas of Italian ironwork are derived. It is this work also which is chiefly copied by the modern Italian ironworker. Owing probably to its want of solidity and sterling quality, its influence did not extend so as to affect the smith's craft in countries beyond the Alps, but it penetrated the valleys of the latter, and mingling with Swiss or German designs, formed pretty and interesting combinations in districts like the Engadine and Tyrol.

## II

## GERMAN RENAISSANCE IRONWORK.

THE closing mediæval period nowhere found the blacksmith especially brisk, and, in Germany, the ironwork, though rich, was subordinate, and palpably under the more or less direct influence of the Church. We have seen that the ironworkers used ornament borrowed from Gothic tracery or based on a mannered treatment of the *Carduus benedictus*, or plain holy thistle (Fig. 24); while screens were generally trellises of rectangular bars threaded diagonally, and enriched with decorative crestings of scrolls and tracery adorned with thistle or iris flowers. The smith does not appear to have made the designs at this period, and had not a free hand, yet opportunities for the display of technical skill were not wanting. Thus the remarkable *ciborium* of Feldkirch, in the Tyrol—finished in 1509—is a magnificent specimen of the smith's craft; though its lines were based on the stone *ciborium* by Adam Kraft, then recently erected in the Lawrence Church of Nuremberg. It, the finest work in iron in Germany, was unfortunately dismantled in 1655, and made up into a pulpit. The beautiful dark green and gold Waldstein screen in the church at Halle, though still essentially an architectural composition, shows increasing freedom in the pinnacles of intertwining stems and details of the cresting, as well as in the finely treated mantling to the helmets over the gates. The splendid Cathedral of Freiburg in the Breisgau, possesses a series of screens extending in date from 1538 to 1590,



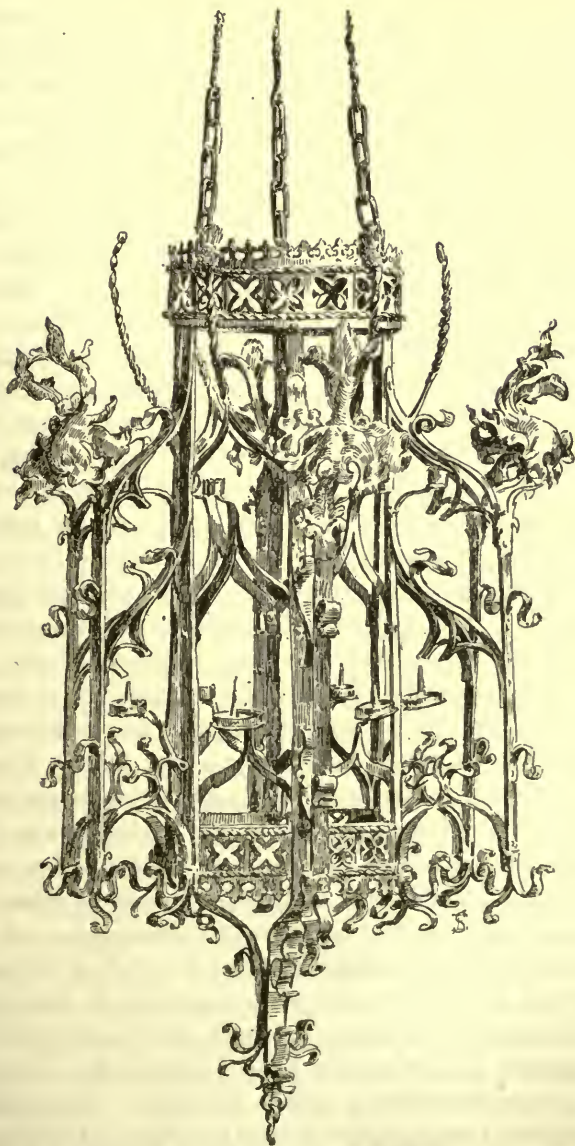


FIG. 24.—A thistle and tracery lamp, in the Munich Museum. Circa 1500.

which commence with tracery designs and end in rich interlacing scroll-work with armorial bearings. In Strasburg Cathedral, the old type of trellis grating is surmounted by a cresting of the new interlacing work, but retains reminiscences of tracery and *fleur-de-lis*, which seem to have survived longer on the Rhine than elsewhere in German ironwork.

The rediscovery and sudden appreciation of classic art affected different countries in widely different degrees. It was not made on German soil, and did not profoundly stir the hearts of German folk. Their own mediæval art was excellent in its way, needing progress, of course, and perhaps refinement, but not rooting up, for it had long been in perfect accord with the climate, genius, and traditions of the Fatherland. Thus, though Germany presented a vast field, studded with opulent cities awake to the advantages of art and commerce, and peopled with earnest workers—some of world-wide reputation—the Italian Art Renaissance, so absorbing on the farther, sunny, side of the Alpine barrier, aroused relatively but little popular enthusiasm on the northern. Nothing is more expressive of the different temperaments of the two peoples than their treatment of iron. The change that came over the spirit of the blacksmith in Germany marched rather with the Reformation than the Art Renaissance. Such stirring events as the Anabaptist and Peasant Wars, and the triumph of Luther, must have sunk deeply in the people's mind; and, of all the crafts, that of the blacksmith was at once the most impressionable and the most popular. The emancipation from the thralldom of tradition caused by these events was thus quickly reflected in the smith's productions, and, as the craft was followed enthusiastically over the whole of Germany, it never had a wider field nor fairer conditions for development. For the space of 150 years it remained entirely and emphatically the people's art, the designs being by the workers themselves, and not by architects or trained designers. Throughout this long lapse of time it enjoyed unusual patronage and opportunities,

yet the total result is disappointing. While fully recognizing its skill and charming quaintness, it is evident that progress simply meant, to the mind of the smith, excelling in manipulative skill. The changes rung on certain stereotyped elements were scarcely appreciably varied by the introduction or omission of leaves with fantastic profiles, of a limited range of conventionalized fruits and flowers, of animals or grotesque heads and masks, and even of figures, at the caprice of the executant. The fundamental and changeless basis of nearly all designs in which such treatment was possible, centred in the threading backwards and forwards of round bars of iron, with the free ends finished off into scrolls, leaves, or flowers of most mannered types (Fig. 25). This perpetual threading of slender bars through each other in alternate directions was no easy task, especially when complicated by their passage through circles and other superadded figures, for each threading involves a difficult operation which it became the settled and peculiar pride of the smith to excel in. The rivalry resulted in the crowding of as many as twelve dozen threadings into a space of eighteen inches square, the slender bars interlacing in some instances like crochet-work, until it seems impossible to follow their mazy intricacies, or to realize that the material is stubborn iron. The picturesque flowers (Fig. 26) with their central open coil, recurved sepals and petals, and hammer-headed stamens, required no less remarkable efforts, and excited similar emulation. They form as persistent an element in the designs—the great difficulty in neatly welding all the parts together, exactly at the growing-point, and in the smallest compass, accounting for the high favour they enjoyed in the craft. These two elements were almost invariably the basis of the composition, the rest being left to the fancy of the individual, for, notwithstanding a partiality for the thistle, any kind of foliage might be adopted. The smith's idiosyncrasies, however, were chiefly to be discerned in the masks, helmeted heads and warriors, made of stout plate-metal scored with lines,



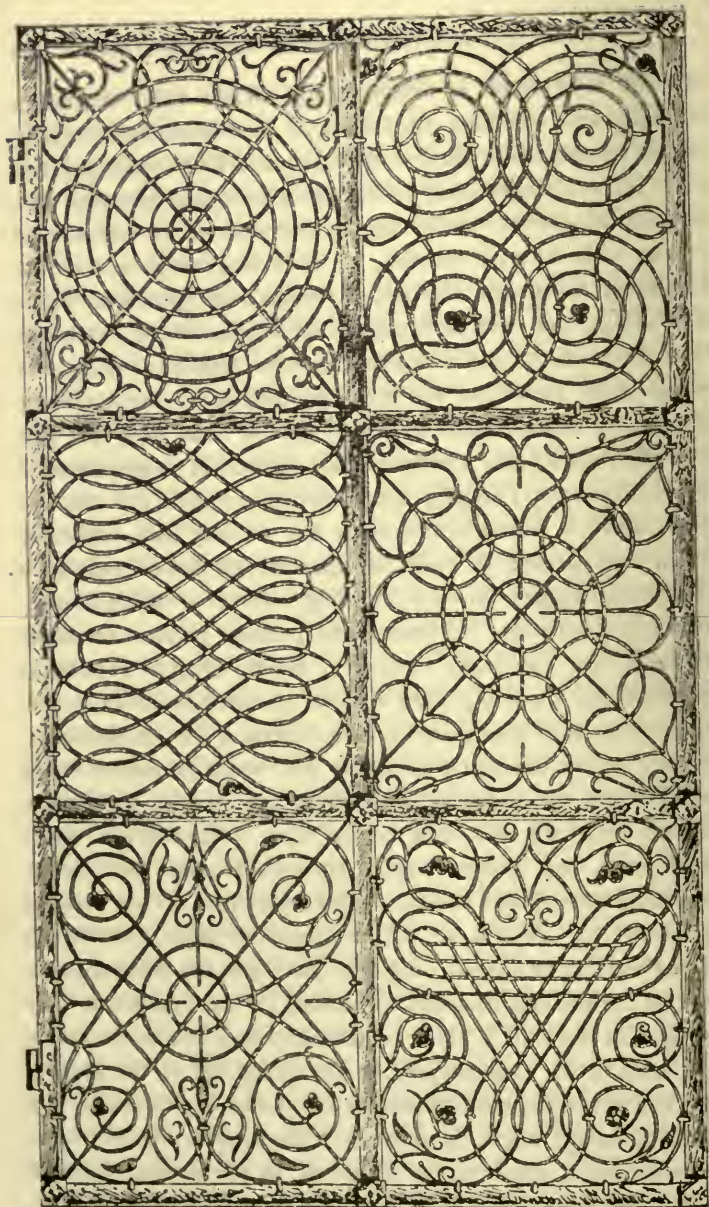


FIG. 25.—Gate to the Silberne Capelle in the Franciscaner-Kirche, Innsbruck. Sixteenth century.

—replaced, if required, by armorial bearings, or by angels and cherubs, when the work was destined for the Church. His robust fancy leaned most evidently to the coarse, grotesque, and martial, rather than to peaceful emblems and grace. The



— 0.20.

FIG. 26.—Screen from Augsburg. Sixteenth century.

style is perfectly familiar, and is illustrated by a wealth of specimens in the Museum gallery, and in recent publications. It is just sufficiently monotonous to make us regret that no Kraft, Vischer, Hirschvogel, or other man of similarly superior and expansive views, is to be found among the German smiths of the Renaissance.

It is impossible to say with whom or in which quarter the style originated; it formed itself as imperceptibly as the clouds, and seems to have evolved itself as rapidly from pre-existing material. The first symptom of change is the disappearance of tracery and the plain trellised screen, the more florid treatment of the thistle, and particularly of the iris, which was soon to assume the complexity of the passion flower. A singular specimen exists in the Schloss Zell, near Coblenz, which, if contemporary with the building, would date from about 1543. The mannerisms of the style are there, but the design is thin and poor, and it has the appearance of an early attempt. There are splendid gates in the rood-screen at Hildesheim, itself finished about 1546; the ironwork may well be later. The style is well developed in examples which occur in the Royal Palace of Dresden, and at Kashau, in Hungary, both apparently dating from 1550. A screen, dated 1564, in St. Elizabeth's, Breslau, exhibits a large variety of leaves and flowers, and even sheet-iron vases, in association with the usual interlaced bars and scrolls of round iron. A domestic grating in a doorway at Kynsburg, dated 1565, comprises similar elements; and the same work is introduced in a screen in the Cathedral of Brunswick, dated 1570. In some of these early specimens, the bars, branching from the main scrolls, are threaded once, and abruptly cut off, or truncated, instead of the ends being fashioned with some form of scroll or leaf. In some instances, trumpet-like pieces conceal the welding. There are no very safe guides that will enable specimens to be satisfactorily dated; but the style was immature till 1550, and nothing remained to be added after about 1625.

The fine well-canopy of Neukirchen (Fig. 27), in Styria, though retaining a mediæval outline, belongs completely to the new style in workmanship, as seen in the panel figured (Fig. 28).

Later and much more magnificent examples of such canopies exist in Germany, especially on Austrian territory. Those like baldachinos seem to have been inspired more immediately by



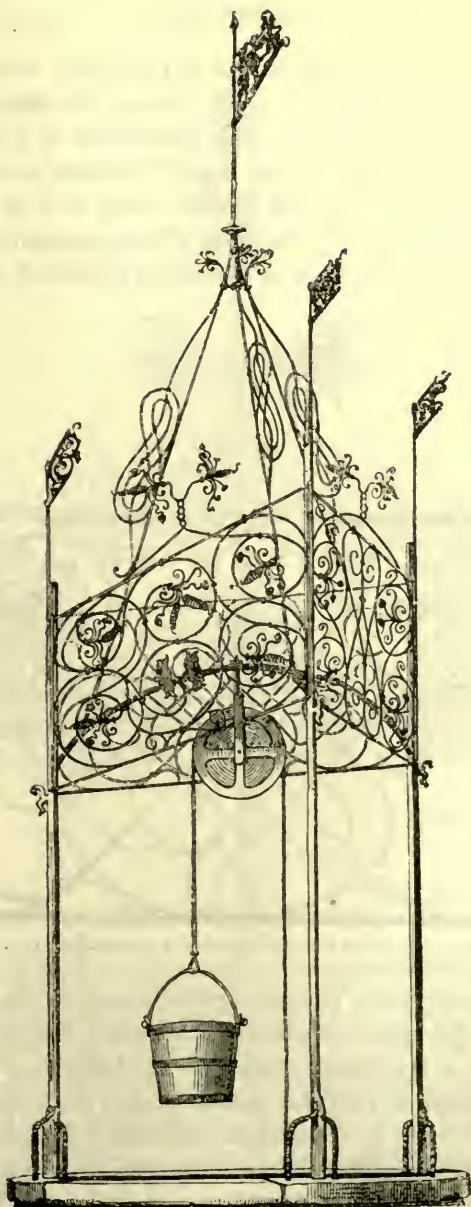


FIG. 27.—Well-canopy at Neukirchen in Styria. Dated 1564.

the magnificent specimen in bronze at Landhause, in Styria, produced by Max Weninger in 1590. One of the finest of these is at Bruck on the Mur (Fig. 29), surmounted by a St. George and the Dragon, shown in our figure. Railings round springs and fountains are common in German cities, such as Augsburg and Nuremberg. One of the sides of the octagonal rail to the fountain in the market-place of Salzburg is illustrated (Fig. 30).



FIG. 28.—A panel from the well-canopy at Neukirchen. 1564.

Chief in importance, however, are the screens to the choirs and chapels of the great cathedrals and abbeys. One of the best, the screen to the Fugger Chapel, in St. Ulrich's, at Augsburg (Fig. 31), made in 1588, has numerous *fleur de lis* and prickets for candles, giving it a distinctive character. The finest of all, rendered more lace-like and precious from its stately surroundings, is the deep red and gold one enclosing the Maximilian

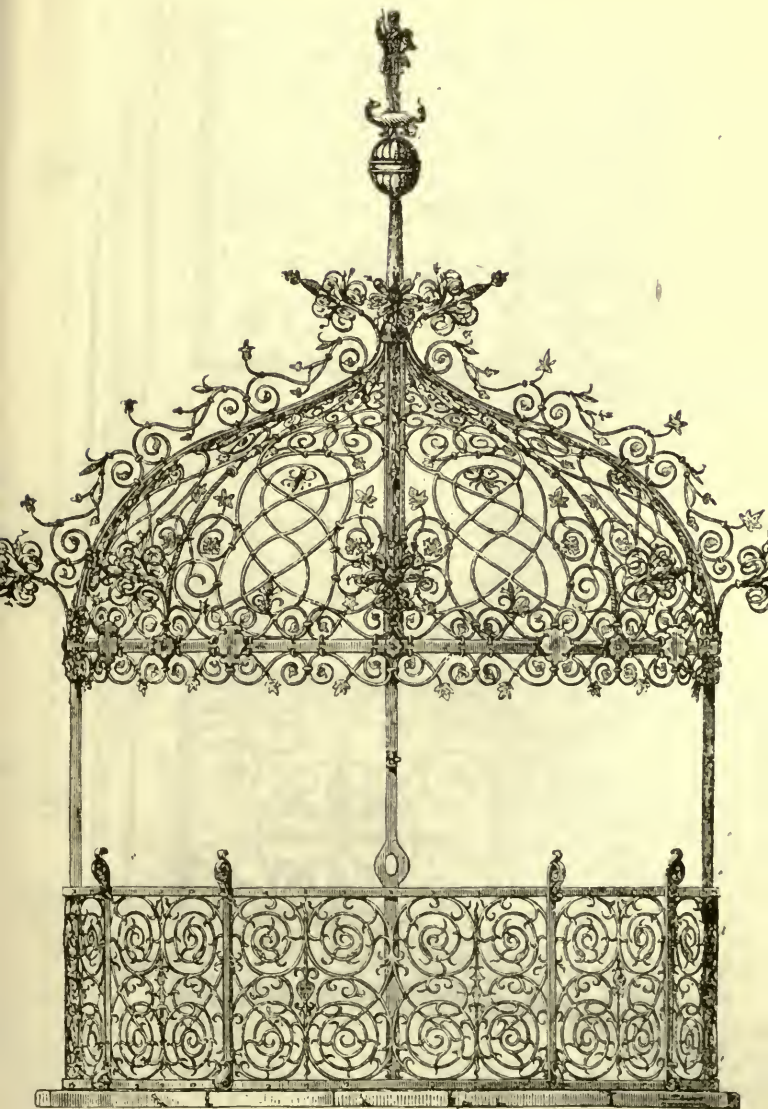
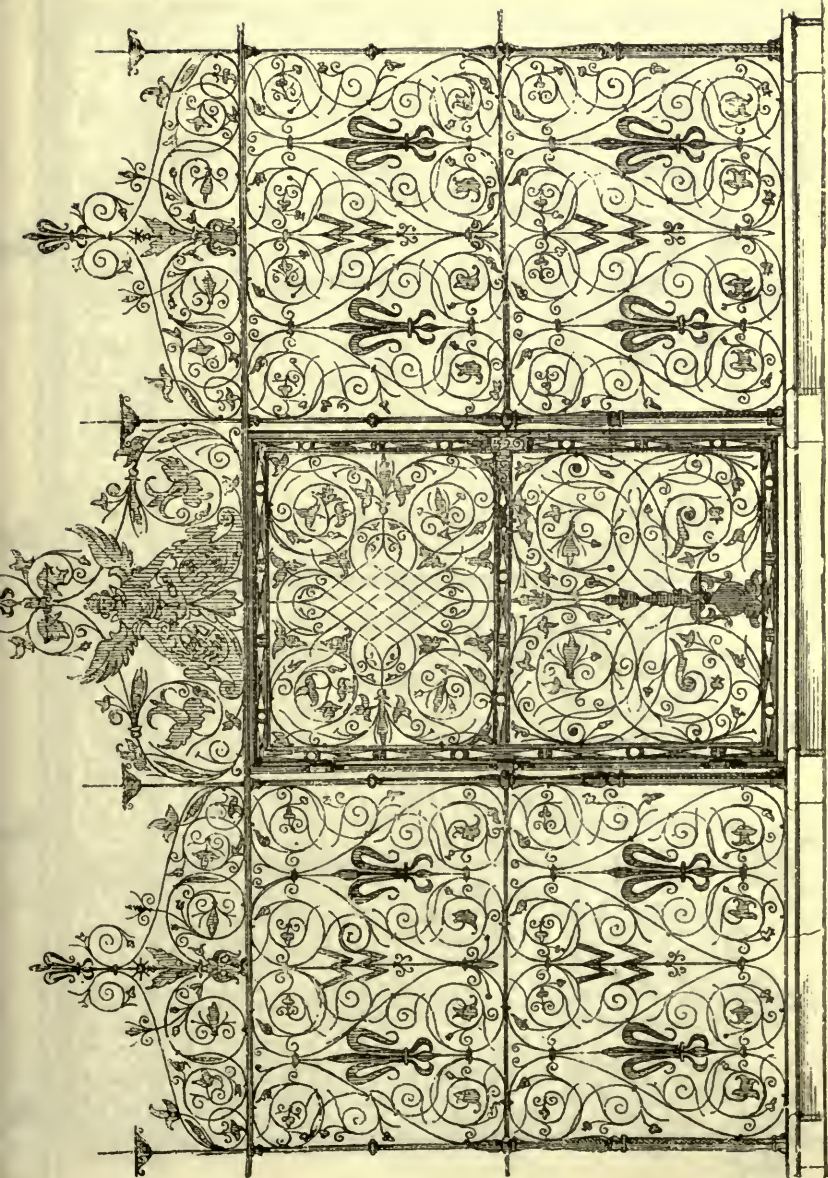


FIG 29.—Well-canopy at Bruck on the Mur. Dated 1626.

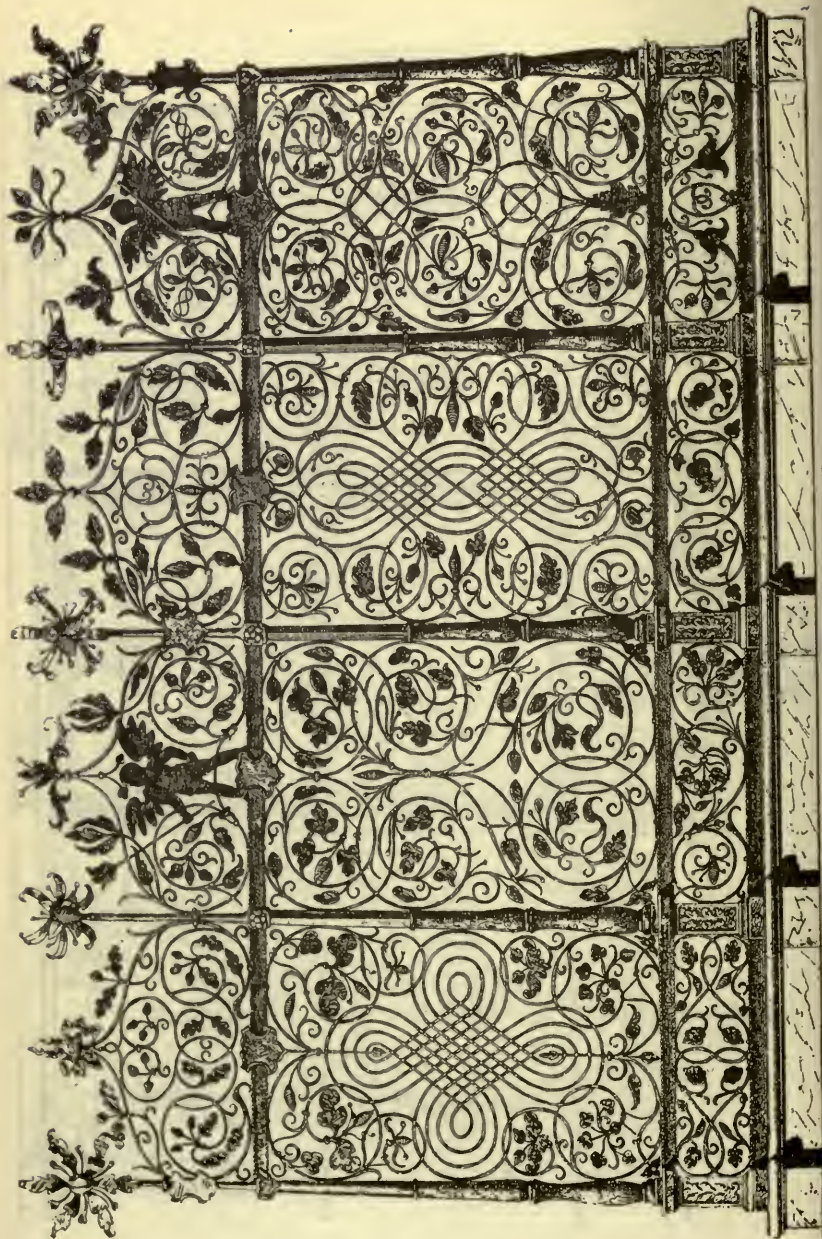


FIG. 30.—Rail to the fountain in the market-place, Salzburg. Dated 1687.









cenotaph at Innsbruck (Fig. 32), executed between 1580 and 1585. The solid standards are swelled and carved into different kinds of leaves, and finish in conventional flowers of remarkable diversity. Its twenty panels form as many different richly interlaced designs introducing the oak, vine, thistle, etc.; each alternate one includes an angel holding a torch and a shield of arms. These belong to the best period of German ironwork, which avoided repetition, plain bars, and geometric designs. There is a semicircular lunette in the Kensington Museum of average threaded work, and a delicate and light inter-threading scroll-work cresting (6118: 1875) of the seventeenth century. The part of a church screen (9089: 1863) is an unusual specimen introducing a number of angels and cherubs, some forged out of solid iron, and others embossed of sheet iron in two halves soldered together. Late in the seventeenth century, the style changed somewhat, new complications being introduced by beating out the scrolled rods here and there into arabesque or organic forms, and inter-threading the whole until large and extremely rich panels were pieced together, solely by welding, without the use of collars or rivets (Fig. 33).<sup>1</sup> Such restless designs yielded in turn to a graver treatment, in which all scroll ends were beaten into strongly characterized thistle-leaves, a style only extinguished by the succeeding *Barock*. One of the grandest examples of this thistle-work, dated 1701, is in the Convent Church at Trebnitz.<sup>2</sup> A magnificent window grating with a later type of thistle-leaf, and comprising grotesque figures, verging on the *Barock*, is in the Museum (Fig. 34). Occasionally the thistle was used in connection with geometric forms, as in the eighteenth-century round-headed window grating numbered 1213: 1872 in the Museum gallery.

<sup>1</sup> A small hinged screen (1214: 1872) represents this kind of work in the Museum, when not in circulation in the provinces.

<sup>2</sup> A semicircular lunette-filling entirely formed of intertwining thistle-leaves illustrates the average work, when not in circulation.

The smith's art was not confined, however, to screens and balconies, for sometimes domestic buildings literally bristled with his handicraft ; wall-anchors, finials, weather-vanes, and the sign-brackets denoting the shops of the various crafts, not omitting

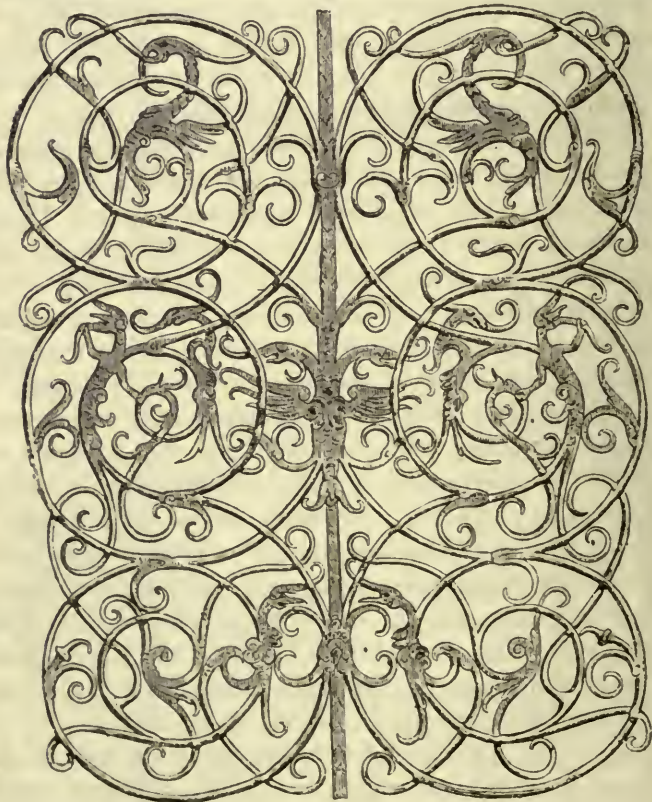


FIG. 33.—Early eighteenth-century window grating, from the neighbourhood of Vienna. Amerling collection.

those of the blacksmiths and locksmiths themselves, exhibited specimens of their skill. The latter have never been surpassed for quaintness, and their happy effect was increased by the huge and elaborate models of keys which dangled from



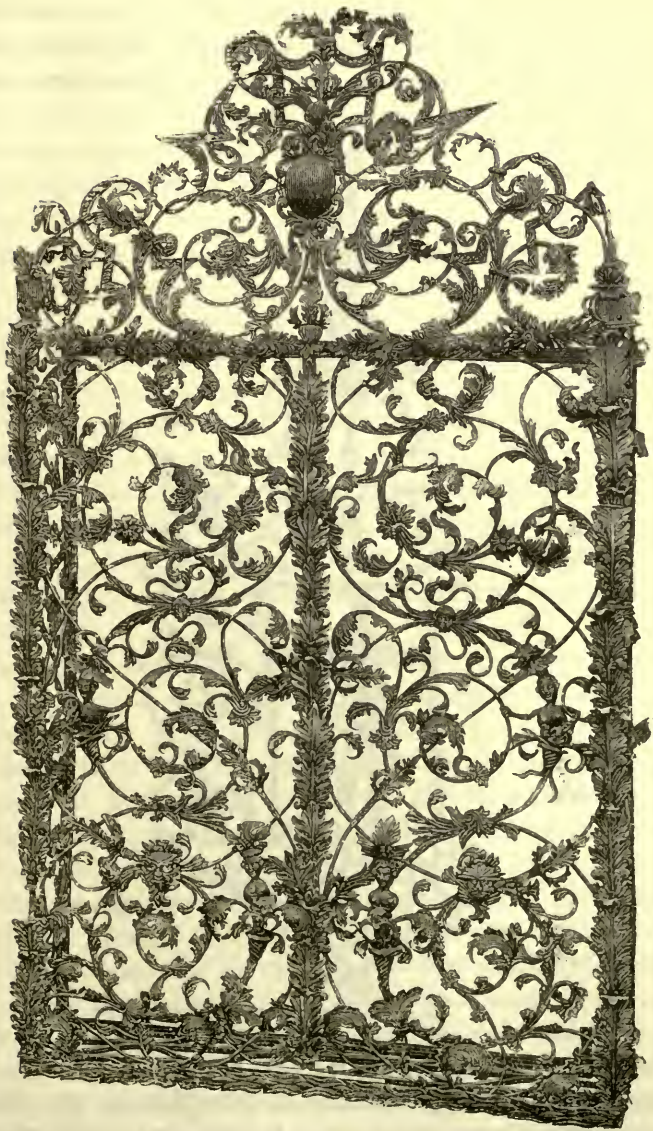


FIG. 34.—Window screen, in South Kensington Museum. Eighteenth century.

them. The Museum is fortunate in possessing the remarkable specimen with a sign in pierced and repoussé iron, dated 1635, as well as the smaller specimen with three imperial crowns, and



FIG. 35.—An Austrian bell-frame.

the two larger key models; for their picturesque value has not always insured the preservation of these signs *in situ*, though hundreds still exist. Of vanes, the favourite form was a mermaid,



or armed merman, on a slender and profusely scrolled stem, an example of which is in the Museum; or fanciful flags, with dates or armorial bearings, on stems impaling wooden or metal discs. Grotesque sheet-iron gargoyles, or gutters, projecting far beyond the eaves, required elaborately foliated supports (see the three typical specimens in the Museum collection); and bells (Fig. 35), slung on richly wrought brackets, formed singularly picturesque objects, as exemplified by the bell and dangle chain (62: 1872) in the Museum gallery. Even the cemetery was gay with the peculiar gilt and painted iron grave-crosses—a not very suitable form of monument which, it appears, was in high favour simply out of general regard for the smith. Several of these are in the Museum; one of the best, though of late work, is signed Georgius Kraus, 1696, and would hold a taper.

The singular popularity enjoyed at this period by the blacksmith is further seen in the multitude of his productions, used in the domestic *sanctum*. Every article of daily use, which, made of brass in other countries, could possibly be in iron, was furnished by the smith.

A singular departure was made by Meister Johann Reifell, the *Stadtschlosser* of Constance, who introduced a broad flat framing, partly concealed and embellished by vandyked and scalloped plates and rosettes, enclosing panels of scroll-work, flattened at frequent intervals into peculiar incised arabesques, leaves, flowers, figures, and, in church work, cherubs. The striking feature in his designs is the imitation in flat iron of balustrades and arcades, usually in perspective. Constance Cathedral abounds with his work, and he was employed for three years, from 1641, on the splendid choir screen at Lucerne. He worked also at Zürich. The singular idea of making openwork iron gates represent a receding arcaded vista and nothing else is seen in the graveyard at Kostel, in Moravia; it is probably by Reifell, or a pupil. The Kensington Museum possesses a piece of his work from Constance. A similar feature occurs in the superb

screen, made by Jacob Mayr for St. Vincent's, Breslau, in 1727, for 4075 Gulden, which represents a Corinthian portal in perspective, filled in with arabesqued thistle-leaves. The entrance gates to the Augarten, in Vienna, put up between 1711 and 1745, show a similar perspective; and a rather poor choir-gate and pulpit-rail in the Museum (664 : 1888), has thistle-leaves and thin spindles suggesting perspective, so the idea, though absurd, was relished. The chapter on *Barock* and *Rococo* ironwork will show how ardently these styles were taken up in most parts of Germany; yet thistle designs continued to be used for even important works, and perhaps still older designs for such objects as candlesticks and household necessaries, down to within ten or fifteen years of the close of last century.

In the Mediæval period, ironwork was used for some domestic purposes, even in palaces, because it was the least expensive metal; but in Renaissance days the smith had to be very alert to compete successfully with brass and pewter. The single and double candlesticks of this period are familiar objects in collections. They are variously contrived to keep the candle flame at any required level, either formed of a spiral coil (Fig. 36), practically a rendering of the brass-worker's slotted tube and peg, or with different spring clips (Fig. 37), or by a small bracket, with nozzle and pricket, sliding on a rod. Sometimes even they are furnished with adjustable shades or reflectors. Their variety denotes a large popular demand and active competition. The domestic requirements supplied by the smith sometimes comprised such large objects as stoves and bedsteads; while even the Reformed Church, with all its simplicity, required, besides rails and screens, large candelabra and hanging-lamps, brackets, pulpit-rails, and sometimes pulpits of iron, so that the career of the blacksmith in Germany could hardly have failed to be lucrative and attractive, both before and after the Thirty Years' War. In some North German churches there is yet another, curious, use of ironwork, for branching hat-holders at the ends of the pews.

The extreme mannerism of the ironwork becomes softened, and even disappears, as the frontiers of Italy are approached, and, as usual, it is in the borderlands, where styles meet, that new developments are to be looked for. The screens in the Campo Santo of Salzburg, dating from about 1570 to the close of the seventeenth century, though of threaded round iron, no longer exhibit excessive interlacing, those by George Klain being especially restrained, and presenting a certain amount of repeti-

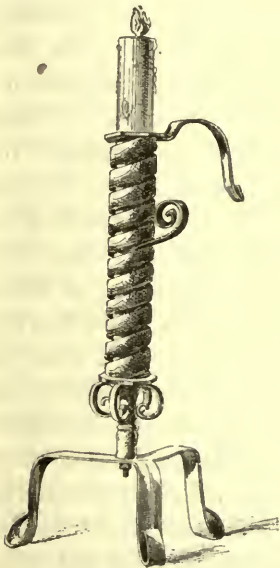


FIG. 36.—Spiral-coil candlestick.

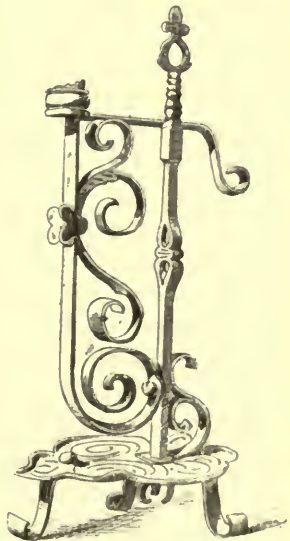


FIG. 37.—Clip candlestick.

tion. Railings in the cemetery at Hall have similar characteristics, and others exist at Botzen, in Southern Tyrol; while ironwork in the Engadine, sketched by Mr. C. H. Löhr, shows the Italian influence still more pronounced.

German locksmiths and armourers formed a united band with the smith, and men might shift freely from one branch of the craft to another. All simultaneously felt the release from the fetters of tradition, and a general licence in design succeeded. It is

hard to imagine, looking back, what occult influences were powerful enough, like some secret *Vehmgericht*, to have bound the locksmith for more than a century, either to the thistle or an architectural form, as the basis of his multitudinous designs. The immense, almost exuberant, variety opening out with the Reformation was doubtless but the natural reaction.

Down to the sixteenth century, doors in domestic buildings were hung by strap-hinges, left plain, or overlaid with pierced sheet ornament, which might end with the strap or be carried beyond it.<sup>1</sup> This pierced ornament was bounded along the two edges by twisted rods beaten out at the ends into some more or less simple or complicated foliage, so fanciful indeed at times that the strap itself looked a mere subordinate appendage. In exceptional cases, as in the castle of Coburg, the pierced ornaments were rich with armorial bearings, or as at Hohentübingen, represented hunting scenes, and figures coursing through the thistle foliage. The door-handles were crescent-like in form, solid or richly pierced, and fringed like the costly example in the Munich Museum from the castle of Burghausen. The horns of the crescent often took the shape of dolphins, or dragons and snakes, when they approached similar but much less extravagant handles in France and England. Several fine examples of these can be seen in the Kensington Museum, when they are not away in circulation. The plain or twisted ring-handles, sometimes fashioned from snakes, or dolphins, or interlaced twigs with stag and steinbock heads (see the specimen 4375 : 1857, if not in circulation), were continued from the mediæval into the Renaissance period, associated with the pierced, lined, and slightly embossed thistle back-plates, ordinarily with a lozenge or cruciform outline. Bar-handles made of one or several rods, or with a roll of pierced metal for the grip, as in the fine example in the bishop's palace at Salzburg, and the three exquisite examples in the Museum,

<sup>1</sup> Examples of the German locks, hinges, and handles here referred to are shown in the frontispiece.



were also occasionally used in the early Renaissance. The splayed rim-lock, seen in Nuremberg, on the tabernacle of St. Sebaldus, as early as 1315, and decorated in the Mediæval period with the thistle or intertwined twigs, or merely with a raised keyhole guide, survived the Reformation, and was enriched with arabesques and armorial bearings, like the fine sixteenth-century specimen in the Munich Museum. A small square rim-lock and bolt on a sheet of pierced iron was used for aumbrey and tabernacle doors. All these were tinned, and scarlet or blue paper was seen through the piercings. They were, thus far, intimately associated with ecclesiastical traditions, and were replaced by new forms and new decorations as these were relaxed. The novel pin-and-socket hinge, with short vertical plates instead of horizontal straps, was necessitated by the large panelled Renaissance door which shortened the hinge-straps to the width of the style. The result, in its plainer forms, was something like our Jacobean cock's-head hinges, but usually the ends branched into spiky foliage, dragons, and arabesques. There are fine specimens in the Museum when not in circulation, as 3594: 1886 from Nuremberg. If the disposition of the panelling allowed, it was prolonged in the centre into a sort of fiddle-shaped strap of open scrolls and arabesques of most complicated forms. Rich examples are found on a cabinet in the Munich Museum dated 1563, and the most fantastic developments were reached by the end of the sixteenth century, to which date the finest specimens in the Nuremberg, Amberg, and other town halls belong. The designs repeat the interlacing features of the screens, and also comprise helmeted heads, men-at-arms, horses, and monsters in the folds of their scrolls. Strap-hinges were still preferred for presses and shutters, and their ends were finished in a variety of pierced arabesques. At the same time, large pierced handle-plates and escutcheons, often taking the forms of warriors, were introduced, and probably led up to our modern finger-plates. The club-shaped lock, a long rim-lock swelling at the end into a trefoil,



was richly decorated, often with very fine embossing, engraving, or etching. An especially fine example is on the cabinet just alluded to, dated 1563, and another superb specimen with armorial bearings, from the parish church at Hall, is also in the Munich Museum. The South Kensington Museum contains at times some magnificent examples of the club-shaped lock, notably the finely etched specimen with the Imperial crown and eagle, and another dated 1610, as well as the brass-fronted lock, 3587 : 1856. The average locksmith's work of the seventeenth century was, however, flat or in slight relief, with rudely incised lines, and tinned, or in common work, coated with lead. The keys are not remarkable. The door-handles were usually moulded or twisted rings, very often introducing a peculiar moustached mannikin's head for the knops and spindle heads, or some form derived from this. A number of examples said to be from Nuremberg are usually in our Museum. Towards 1600, door-knockers became prominent, they afforded scope for a more fantastic treatment than the handles (Fig. 38). Four of those in our Museum are fine examples, particularly the grandly chiselled one 4913 : 1857, reputed to be from Nuremberg. The nails which fastened all this work in place, and occasionally studded the doors, were sometimes handsomely worked. The vast quantity of locksmith's work used in the early part of the seventeenth century can be gauged from a pair of doors in the Pellerhaus, in Nuremberg, 1605. These required, on the inside alone, ten hinges, six of which were very large and elaborate ; a lock and staple with richly foliated straps ; two sockets with arabesqued plates to receive the ends of a chain or bar ; a magnificently worked bolt and socket, and a rich lock to secure the bolt ; besides large and small cruciform strengthening plates. These and the shutters and presses, which were as lavishly covered with metal work, formed brilliant regions in the wainscoted and tapestried rooms. The Museum possesses many fine examples in its numerous cases devoted to locksmith's work. The Germans were very thorough in those days.

As in the blacksmithing, there are endless variations, but few new departures, in the locksmithing. The shutter-hinges and latches often show Flemish characters, and, occasionally, artists may have furnished the designs, as there is a nobility about some of them, especially those based on heraldry, beyond the workmen's capacity. The average productions are intricate and mannered,



FIG. 38.—German door-knocker. Seventeenth century.

angular and poorly grotesque; the endless quantities that have been preserved and illustrated render the style monotonous. In the Tyrol and Switzerland proximity to Italy seems to have slightly softened the designs, as occasionally a female bust replaces the warrior; and now and again, as at Landshut, the employment of Italian workmen has impressed a distinctive character

on the locksmith's work. Again, such vast numbers of Germans worked in Italy in the sixteenth and seventeenth centuries, that the designs, especially of keys and caskets, were visibly influenced. Above all was this the case with armour, which can with difficulty be distinguished after the reign of Maximilian.

The production of armour in Germany is lost in antiquity, for already in the thirteenth century Cologne, Nuremberg, and Heilbronn, and perhaps Augsburg and Munich had achieved celebrity. The Wolf blades of Passau were highly esteemed in France; and we find the Duke of Norfolk, in the fourteenth century, preferring to trust to German armour rather than any other. The fluted Maximilian armour, said to have been thrown into ridges to give extra resistance, was peculiarly German, but after that date only one style prevailed over civilized Europe.

The name of Lorenz Plattner has survived as armourer to Maximilian. Under Charles V., some of the highest artistic skill the country afforded was devoted to the decoration of armour. Among designers of armour and weapons, we find the illustrious names of Wohlgemuth, Dürer, Hans Holbein the younger, Hirschvogel, Peter Flötner, Heinrich Aldegrever, Schwarz, Von Achen, Brockberger, and a host of others. The finest suits in Madrid and Paris, for years regarded as Spanish or Italian, have been discovered to be German. Engravings and original drawings in Munich show that superbly embossed suits were designed for François I., Henri II., and Rodolph II. by Hans Mielich, a pupil of Holbein, who lived between 1515 and 1572. Desiderius Kollman, who worked in Augsburg, 1532, and made suits for Charles V., Philip II., and many Spanish grandees, received fourteen thousand crowns for the complete suit for horse and man of Christian II., now in Dresden. The Spaniards also bought fine armour of Peter Pah, of Munich. The Seusenhofer family made Innsbruck famous, witness Shakespeare's "icebrook's temper," and were much employed by the German sovereigns, as

well as by those of France, England, and Portugal. The fine suit of Henry VIII., in the Tower, consisting of seventy-five pieces engraved with St. George, St. Barbara, and many badges and figures, was made by Conrad Seusenhofer, in 1514, and brought to England by Hans. The family were commissioned to make



FIG. 39.—Front view of stirrup made for Wallenstein. Early seventeenth century.

a suit for Francis I., two for his son, and six for members of the French Court; and Wilhelm, who died in 1547, made suits for Charles V. and Ferdinand. It appears that the suit made for Francis I., the finest in the French collections, was ordered by Ferdinand of Bavaria, as a present, in 1547, but never despatched, and was only taken to Paris by Napoleon, from the Ambras



collection. The circular buckler in the South Kensington Museum, signed Georgius Sigma, and dated 1552, is a good example of German embossed armour. The name of Solingen is found on many of the finest basket and swept-hilted rapiers, especially of the date of our James I., and its numerous

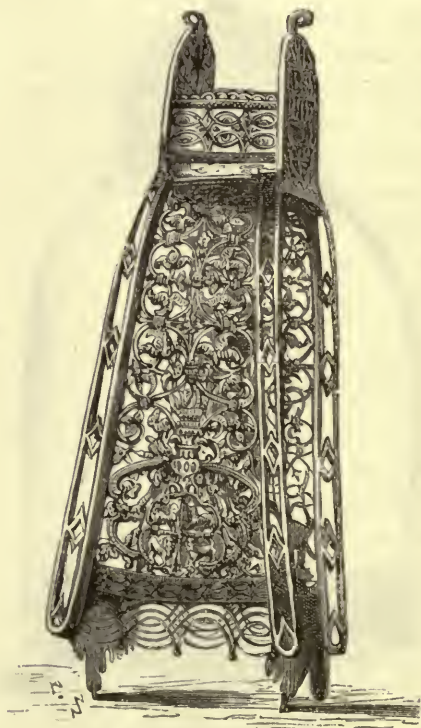


FIG. 40.—Side view of stirrup.

makers enjoyed world-wide reputations. The hilts are frequently most richly chased, and decorated with figures and bas-reliefs carved from the solid. The pierced and chased stirrups made for Wallenstein are rare and fine examples of German accoutrements of the early part of the seventeenth century (Figs. 39, 40).



Gottfried Leygebe, of Nuremberg, who died at Berlin in 1683, achieved an unique reputation for this work, and not confining himself to weapons, produced the game of chess at Munich, and several statuettes. The best of these is the celebrated equestrian figure of our Charles II., represented as St. George slaying the hydra of revolution; it required five years' labour to carve, from a block of iron weighing 67 lbs., and is among the treasures of the Green Vaults in Dresden. The most important work of this kind, however, is probably Lord Radnor's armchair or throne, carried off by the Swedes at the sack of Prague, and brought to England about a century since. It was made by Thomas Ruker, as a present to the Emperor Rudolph from the city of Augsburg, and its pieces are carved, filed, and chased out of the solid iron, to represent events from the Bible and history of Rome. The figures are fine in drawing and execution, and altogether it is, beyond doubt, one of the very finest specimens of German ironwork ever produced.

The quaint but rich designs of the German pierced-iron horse-muzzles, with their badges, armorial bearings, and dates, deserve especial notice. The South Kensington Museum has two good examples, and they are represented in most collections of armour (Fig. 41).

A great deal of the finest German Renaissance armour, and even locksmith's work, was gilded, and sometimes richly painted in oil-colour. The art of etching on armour, which became so fashionable as a decoration, appears to have been introduced by Wohlgemuth or his pupil Dürer. By 1513, Dürer was successfully practising the newly invented process of biting the lines of his drawing with acid on metal, instead of cutting them with the graver, and this process was soon extensively adopted by the armourer and locksmith. The flat surfaces of iron caskets, and even lockplates and hinges of simple outline, were prepared expressly for the etcher, and were greatly appreciated. Fine examples are in the Museum, when not in circulation, especially

one dated 1550. Similar caskets were made in Italy, and if these are by German workmen, it becomes most difficult to tell in which

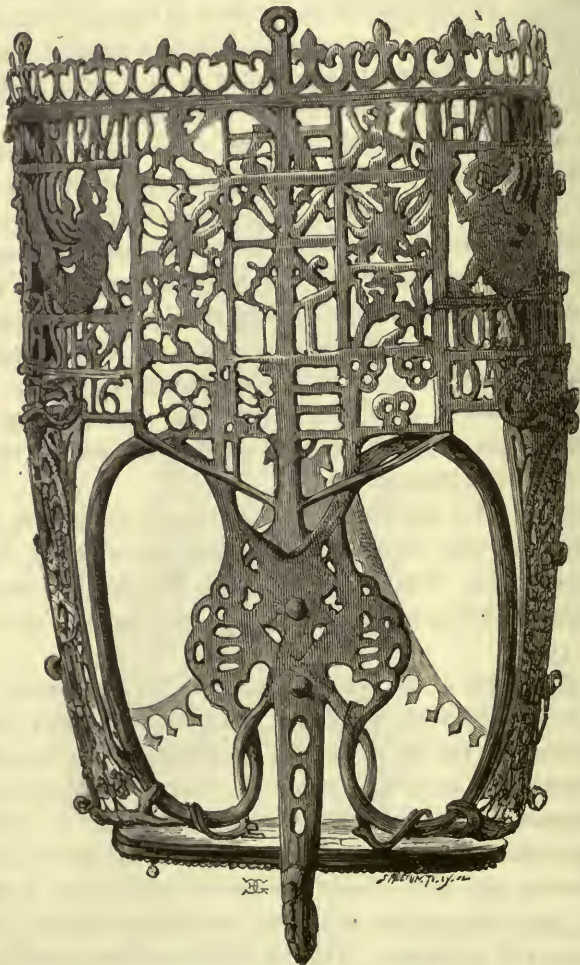


FIG. 41.—Pierced horse-muzzle, with armorial bearings. Dated 1604.

country they were made. There is, however, a quaintness and humour and laboured earnestness about German designs, whether

etched, chased, or embossed, which distinguish them from the more self-conscious Italian or the *spirituel* French.

Considering the activity of the Hansa and German steel-yard, it is surprising how little German ironwork found its way to this country. The iron chests, known to us as Armada chests, and in France as *coffres de Flandre*, are the only striking exception. They are made of hammered plates of iron riveted to iron straps, which bind them together and cross each other at equal distances. The flat lid slightly overhangs the sides, which are furnished with heavy ring-handles. The lock is fixed to and entirely covers the lid inside, and, with one turn of the key, shoots from eight to twenty-four bolts in four directions, to catch under the flanged edge of the chest when shut. The key-hole is in the centre of the lid, and is concealed by some rosette or device repeated at all the intersections of the bands, while an escutcheon-plate, often a florid acanthus leaf, is ostentatiously fixed to the front of the chest. The mechanism of the lock is masked by a pierced and engraved plate, which invariably betrays the German origin of the chest. These were apparently imported late in the seventeenth and during the eighteenth centuries, though they are seldom dated, and they enjoyed a monopoly as safes and strong-boxes. Many of our old-established banks, hospitals, insurance offices, and business houses still carefully preserve, like the Bank of England, their original strong boxes. The Tower armoury boasts of one, labelled a "military chest." One measuring four feet nine inches, with the arms of Nuremberg on the plate, is possessed by the Clothworkers' Company, and the Dyers have one measuring three feet nine inches, while two smaller chests of the Shipwrights and the Plumbers are deposited in the Guildhall Museum. A date as late as 1793 appears on one said to have been purchased at Gloucester, and they may thus have been imported until the introduction of safes in the present century. The chest (4211: 1856) in the Museum is an average example. Oak trunks profusely covered with acanthus straps and ornaments were commonly

produced in Germany in the second half of the seventeenth century. They vary much in form and decoration, one remarkable specimen in the South Kensington Museum, about six feet long, being almost covered with pierced and tinned iron ornaments, while a still more richly decorated specimen is on a stand, and dated 1716. Doors, especially of strong-rooms and sacristies, continued to be lined with plate iron profusely embellished with studs, foliated straps, and embossed foliage.

Little is known of the history of the art of casting iron in Germany, but it originated at an earlier date than was supposed by Dr. Percy. Cannon were cast at Erfurt as early as 1377, when we read that the city of Frankfort ordered one to throw balls of 1000 lbs. weight. There is a remarkably fine cast stove in the castle of Coburg, made of large plates with bas-reliefs of the Coburg arms and of the Virgin and saints, said, with every appearance of probability, to date from 1472. Detached panels from similar stoves are sometimes taken for fire-backs. The castings, and, indeed, the ironwork generally of Germany, did not, as we have seen, become models of classic grace and simplicity with the appearance of the Renaissance, for the German artisan, while welcoming independence of thought, remained inveterately Gothic in his tastes. His peculiar mannerism remained until French influence, under Louis XIV. and Louis XV., became well-nigh paramount in Europe, and German ironwork underwent that great change which will be traced in a succeeding chapter.



### III.

#### RENAISSANCE IRONWORK IN THE NETHERLANDS.

THE chronicles of the Netherlands are singularly reticent with regard to ironworking. Its smiths, as we have seen, were the last to enter into rivalry with those of other countries, yet they rapidly placed themselves in the front rank. At the period of the Renaissance, this excess of energy showed signs of flagging, and the remorseless rule of Philip II. of Spain, and the endless wars that followed, rendered any revival impossible. A terribly protracted struggle dealt crushing blows to the arts and commerce of the country, and drove the skilled craftsmen, the strength and sinews of the land, to seek in crowds the shelter of neighbouring countries. The emigration to England especially, in spite of Philip's efforts, took alarming proportions, Sully stating that when he passed through Canterbury on an embassy to James I., two thirds of the inhabitants were Flemings. The grand ironwork of the Low Countries thus belongs chiefly to the mediæval period, and has been noticed in a former volume, but the later and humbler efforts of the smith are full of quaint design, and of more than superficial interest. All Netherlandish art must appeal to us, since similarity of climate, long-established bonds of trade and alliances, and some racial sympathy, had harmonized it with our own, even before the influx of refugee craftsmen and the enthronement of Dutch William made the arts of the two countries practically one. Repeatedly has our ironwork been particularly inspired by the Flemish, and everything they produced is of importance to the history of the craft here.

When the Italian Art Renaissance came, no nation studied and entered into its spirit so thoroughly, or so quickly and completely assimilated its beauties, and grafted them on its own art, as the Flemish. The ornamentists of the Netherlands, Alart Claes, Lucas van Leyden, Cornelis Bos, Jacob Floris, Hans Collaert, Vredeman de Vries, Marcus Geerarts, the De Bruyns, and others, achieved a world-wide reputation, and even excelled the Italians. They were the masters who taught England how to adapt Italian architecture to a more inclement climate, without sacrificing its beauties, and helped to introduce it into Germany, and even into France and Spain. Yet some French writers affect to believe them the mere chapmen of Europe, stealing ideas, that they met with on the road, to reproduce at home. Their ironwork alone, however, suffices to dispose of the calumny; and no people perhaps have showed originality in art more often than the inhabitants of the Low Countries. The fact that the arts of their next neighbours, France and Germany, were entirely opposite in character, yet both overflowed to meet in their country as on a common ground, was undoubtedly a most happy circumstance for a people so well able to take advantage of it. They only received them, however, to melt and fuse them in their crucible, and mint them anew with their own stamp. The countrymen of the Van Eycks and Rubens were no mere copyists, and their architecture, together with their matchless wood and stone carving, and fine textiles, claims a high place in the history of art. The genuine artistic spirit which imbued the people in their days of freedom, could alone have led to a metal, so intrinsically valueless as iron, being worked so exquisitely as to entitle it to the places of honour in their principal churches. The beautiful Massys chandelier of Louvain, which still excites admiration, is formed of a hexagonal basin with moulded angles, tapering to a point and finishing in a dragon's head holding a ring; the basin is bordered by an open flamboyant balustrade with pinnacles, and is suspended by six curving and foliated ogee rods, while scrolled

branches, also decorated with flamboyant tracery and foliage, spring from the angles to hold the lights. Another in St. Bavon's, at Ghent, is formed of a hexagonal canopy, of architectural openwork design, with three buttressed supports ending in pinnacles containing niches for small bronze figures. The steeply pitched roof



FIG. 42.—Wrought-iron corona in St. Peter's Church, Bastonges. Sixteenth century.

of the canopy finishes with the dragon of Ghent; and beneath there hangs a sanctuary lamp, partly concealed by the clustered branches of almost naturalistic oak, from which small dragons' heads peep out to hold the candles. Other churches boast of coronas rendered rich with fine crestings of flamboyant leaves,

openwork scrolls and flowers. The best known (Fig. 42), is in St. Peter's, Bastonges. All were probably votive offerings, and, perhaps, like the Ghent example, gilded and illuminated in colours; though coronets and even jewellery are sometimes represented in pictures as of the most delicate black ironwork. It is to be regretted that so unaffectedly poetic and so permanent a form of memorial should be lost through the preference for commemoration by costly and useless rows of gravestones.

Of the great font-cranes almost peculiar to the Low Countries, the mediæval examples of Louvain and Hal have been noticed. That of Bois-le-Duc is still mediæval in design, but with some remarkable leaf and flower work. The great church at Breda has one filled with scroll-work, terminating in somewhat Gothic iris flowers, while St. Martin's, Ypres, possesses a purely Renaissance example, with most interesting detail. These are of the sixteenth century, and deserve, like that of Dixmude (Fig. 43), made in 1626, the closest attention. The whole form a remarkable series ranging through the best periods of Netherlandish art.

Few church screens, or *grilles*, of iron were made during the Renaissance, when the Spanish taste for rich carving and the more costly materials, marble and bronze, began to prevail; a taste which seems to have led to the destruction of most of those already existing. No delineation even exists of the iron screen made by Gilles Wolghe, of Bruges, in 1502, for the sumptuous tomb of Mary of Burgundy; nor of that to the tomb of the third Duke of Guelders, reported to have been taken to the Tower of London. An example from the great church of St. Bavon, Ghent, has somehow found its way to the South Kensington Museum (Fig. 44). Glimpses of rich iron screens are, however, not rare in the highly finished interiors of churches by Dutch and Flemish painters. Perhaps the honour of first using iron railings on a large scale round open spaces may belong to Belgium, for we find it mentioned so far back as 1555, that the space in front of the palace of the Duke of Brabant, in Brussels, was so enclosed.



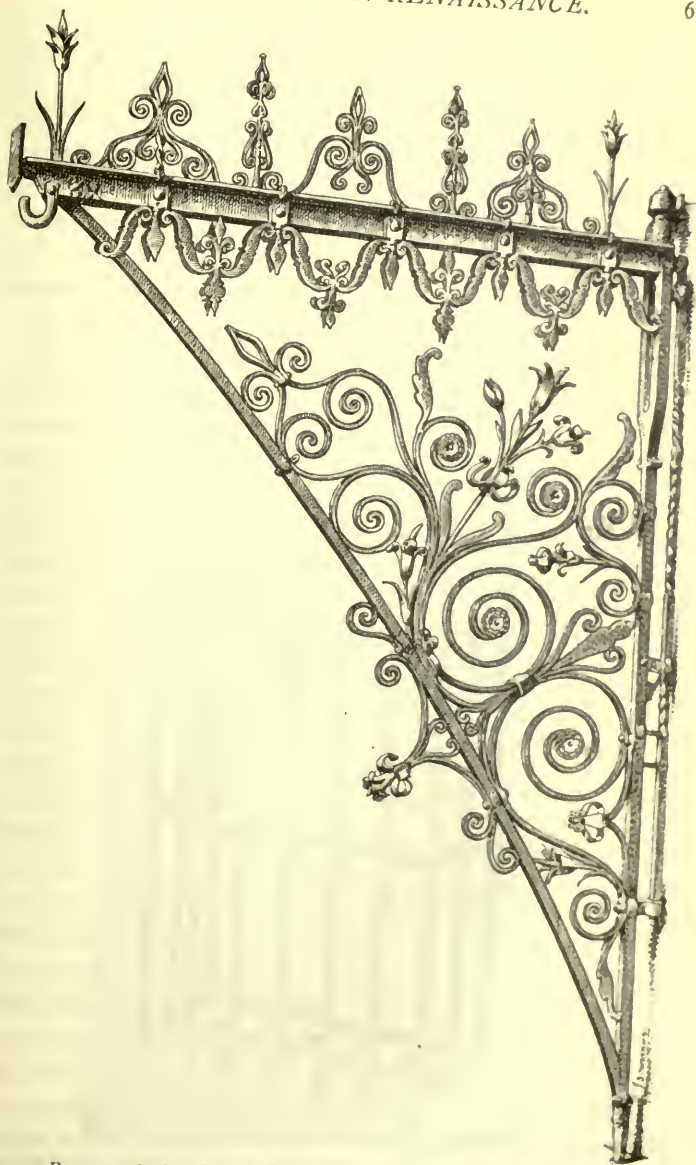


FIG. 43.—Font-crane in the principal church of Dixmude. Presented by a burgomaster, in 1626.

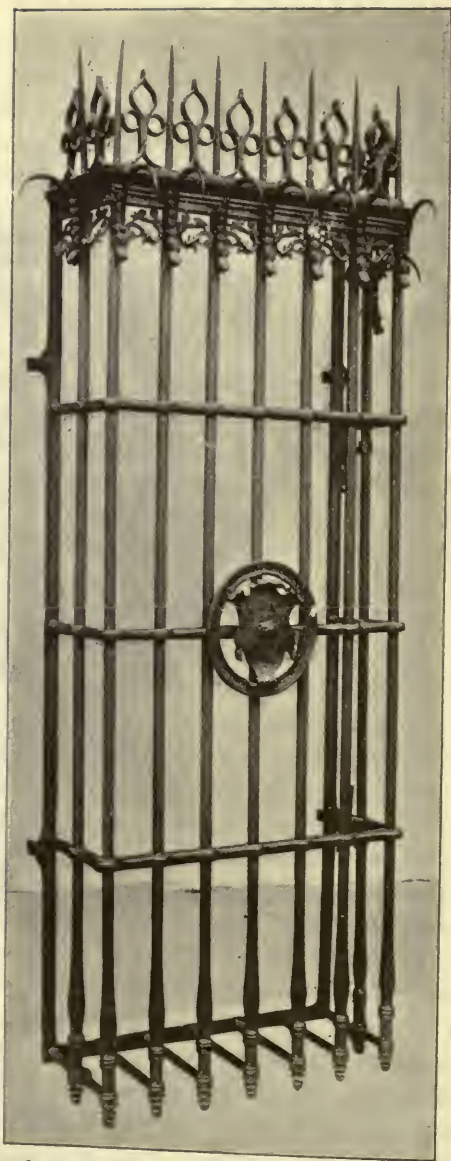


FIG. 44.—Screen from St. Bavon's Church, Ghent. In the South Kensington Museum.  
Sixteenth century.

A most extensive use was made of ironwork in Flemish cities at this period. A view of the old Antwerp Town Hall, engraved by Henri Causé, just before its demolition in 1564, shows projecting grilles of interlaced bars to the windows, some with a cresting of *fleur-de-lis*; the doors and shutters hung with *fleur-de-lis* pattern hinges; a large lantern depending from a handsomely scrolled bracket at one angle, and in the foreground a well, with a rich iron canopy supporting the windlass, while opposite is a handsomely wrought sign-bracket, and two gabled ends bearing decorative iron finials.

Window gratings were of upright bars, often octagonal, sometimes with rudely moulded caps and bases, or of interlacing bars crossing rectangularly or diagonally, and usually projecting beyond the building line. Often one or two of the windows of the Town Hall, or Guildhall, either immediately over the entrance, or in a convenient situation, were distinguished by enriched gratings, with flowers and crestings, perhaps used as relatively safe points from which to harangue the citizens. They are to be seen in old views; two windows are still provided with them in the Nimeguen Town Hall, and there is one at Kampen.

Few iron finials or crestings of the sixteenth or seventeenth centuries have withstood storms and weather, yet some still remain, and many have been restored. The oldest are open-work crosses, used for secular as well as for religious buildings, and differing in no respect from those of the north of France. The fantastic Renaissance towers, spires, and turrets, carved in wood, and sheathed in lead or copper, are surmounted usually by bannerets, and occasionally dragons,—as vanes, but rarely accompanied by the cardinal letters,—or else by spikes enriched with bosses and clustered scrolls. Ship vanes were seldom used before the last century. Gables and roof ridges were sometimes enriched with iron crestings as well as finials, the roof of the seventeenth-century Boucherie at Haarlem having even the ridges of the dormers fretted with richly worked scroll borders.

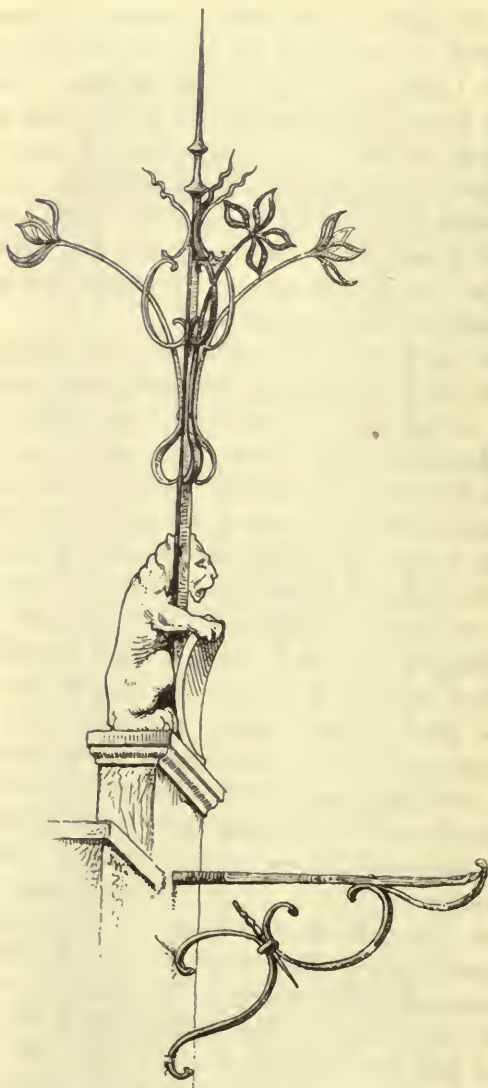


FIG. 45.—Finial in the Rue du Fil, Bruges. Dated 1628.



Some valuable examples exist at Bruges, such as that (Fig. 45) in the Rue du Fil, dated 1628.

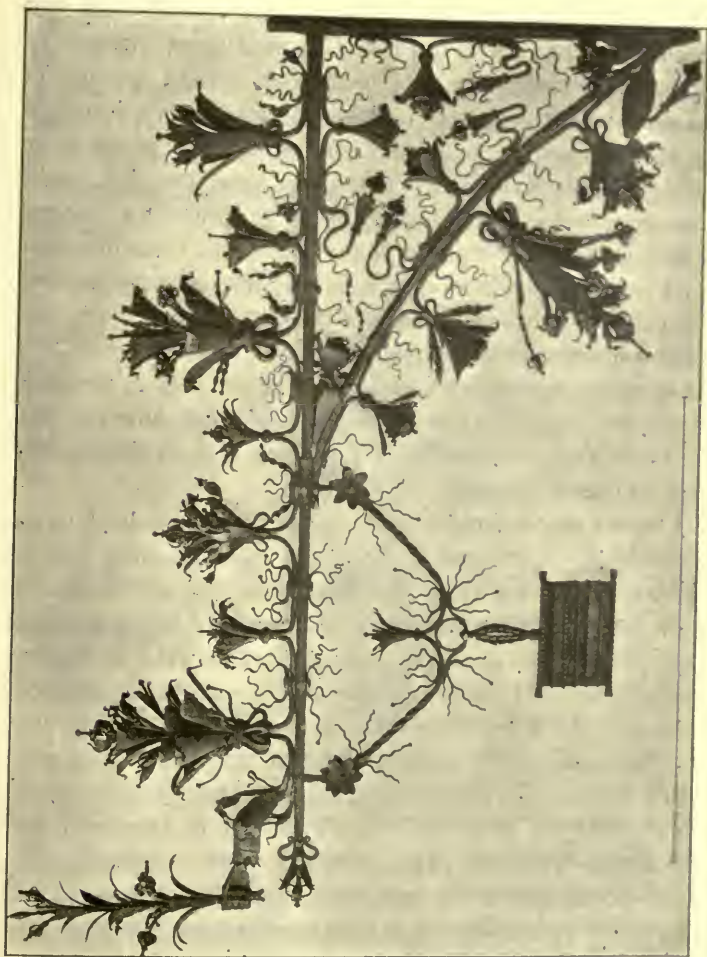


FIG. 46.—Sign-bracket to an *estamineel* called the Roskam, or Curry-comb, in the Marche de Vendredi, Bruges. Sixteenth century.

The sign and lantern brackets must have been at times magnificently wrought, and were decorative features in the picturesque streets. Few, however, are left, mediæval and

Renaissance street ironwork having disappeared almost as completely as in England. The beautiful bracket in the *Marché de Vendredi* of Bruges (Fig. 46), from which a curry-comb still depends from a chain of flowers, is the most noteworthy exception. Shaped like a crane-bracket, with a cresting of liliaceous tufts, bouquets of flowers and ears of corn, it recalls the sixteenth-century font-cranes, and is doubtless of the same date. Van der Kellen illustrates a rich sheet-iron sign, dated 1600, representing the five senses, but shown without a bracket. A sheet-iron sign in Brussels, of the same date, bears the arms of the seventeen provinces upon it, hanging from a simple bracket. The richly wrought sign-brackets of the latter half of the seventeenth and eighteenth centuries are referred to subsequently. A few of the old lantern-brackets may still be met with in deserted streets, and lanterns are preserved, most of which, however, like the richly wrought examples in the Town Hall of Mons, were used for interior lighting.

A feature almost peculiar to the Netherlands, or to brick cities inhabited by its refugees, is the use of highly decorative wall-anchors, introducing either the owner's initials, or merchant's mark, the date of the building, or the nature of his occupation. These still occur in profusion, especially in Flanders. A Belgian royal commission published as many as sixty-eight sets, existing in 1866, in Ypres alone. Few are older than the sixteenth century, and these affect either some treatment of the *fleur-de-lis* or geometric tracery. The oldest figured are on the *Boucherie*, at Ypres, which, like those on a house in the *Wijnstraat*, in Dordrecht, are late thirteenth century. They usually bind ten or twelve courses of brick, and occasionally have some projection—perhaps in the form of leaves and flowers—to hang tapestry from, it is supposed, during festivals. Good examples are a heart pierced with arrows, at Zaltbommel (Fig. 47), and the cross-bow of the *Hand Boog Brewery*, at Delft, of the sixteenth century; but usually they are Renaissance scrolls, enriched, or more often fringed, with smaller

ring-like scrolls. Few are preserved in museums, and the quantity annually destroyed must have been prodigious, to judge from the report of the commission, which mentions that twenty out of sixty-eight illustrated were destroyed whilst it was being prepared. Florid examples, inspired by the Flemish, exist in brick towns of north Germany, and in some few towns of England and France, inhabited by refugees. To the production of these, and the embellishment of cooking utensils and common objects of the *ménage*, the expiring energies of the Flemish smiths seem to have



FIG. 47.— Wall-anchor from the house of Marteen van Rossum, at Zaltbommel. Sixteenth century.

been confined, when liberty was finally crushed in Flanders and Brabant, under the Spanish yoke. Of domestic utensils, the most important are the *landiers* (fire-dogs) and andirons, which, though far from neglected, are ruder than in France. Flemish double *landiers* are particularly scarce, and the figure (Fig. 48) presents the solitary example possessed by the Museum of Antiquities in Brussels. Ordinary *landiers* are abundant, presenting no

especial features ; they are usually provided with the open cresset (Fig. 49). More peculiar are the cooking utensils, the trivets, *crémaillères* (Fig. 50), and other such objects, which are much richer and more characteristic than elsewhere, being only rivalled



FIG. 48.—Landier in the Brussels Museum.

in elaboration, and that but distantly, by the not dissimilar work of Normandy.

Gridirons, mentioned in inventories, from the fourteenth century, were sometimes of colossal dimensions, like that of the Cordeliers in Paris, on wheels, which would grill a whole barrel



of herrings at once. In Flemish grids, the bars are usually replaced by a scrolly design (Fig. 51) worked out in square iron, and a finely decorative effect is produced by clustering scrolls somewhat uniform in size, finishing in complete rings, and welding the whole into one piece. Silver grids have been

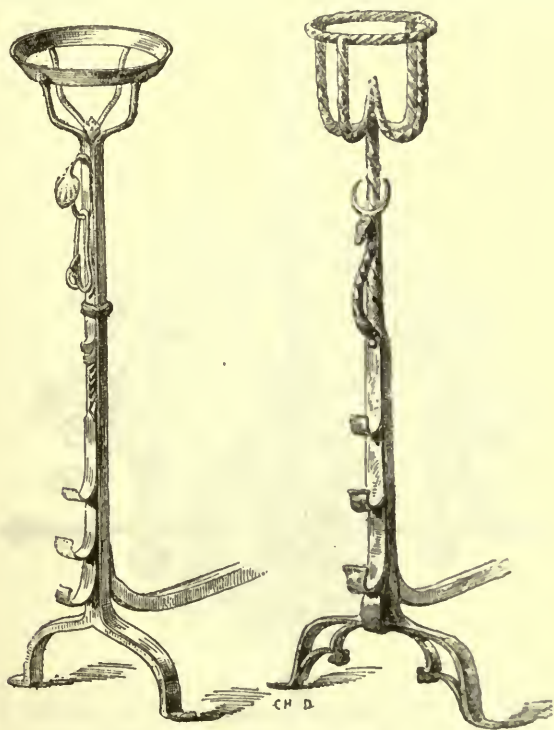


FIG. 49.—Cresset fire-dogs.

modelled on the same lines. The *couronnes d'office* (Fig. 52), often represented in Dutch and Flemish pictures, were also decorative. Occasionally the form of the globose brass chandelier was reproduced in open ironwork (Fig. 53), the welded feathery scrolls, clustered and bent into these forms, producing a charm-

ing effect. The baskets for burning or holding wood, and the braziers, like one dated 1571, in the Palais du Franc, at Bruges, are also picturesque. Brackets, desk-stands, and even bird-cages and dog-kennels, are to be found of the same workmanship. Being highly picturesque and inexpensive, such objects have found their way in quantities to this country. The candelabra

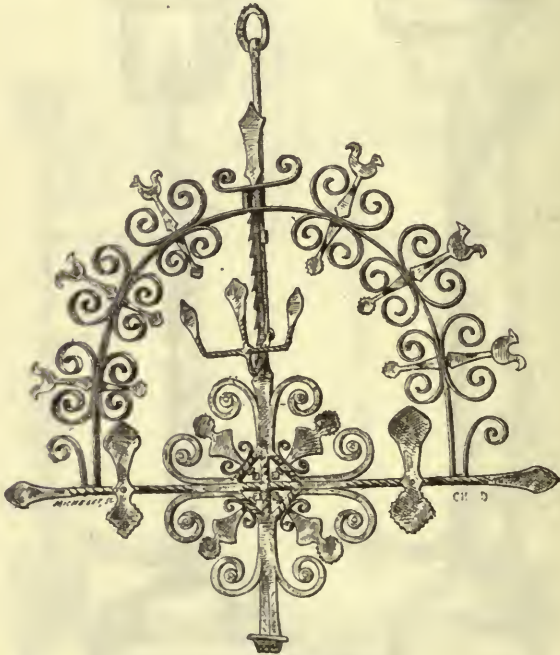


FIG. 50.—Crémaillère.

and wall-branches introducing lilies, borrowed probably from the Venetian, are later, like those in the Baroque and Rococo styles of Louis XIV. and Louis XV. Fine examples of Flemish Renaissance, or early seventeenth-century scroll designs may frequently be met with in screens or even rails. There is a semicircular lunette-screen in the Hôtel de Ville, at Brussels, others in Mechlin

Cathedral, and two in the Town Hall Museum of Louvain, all remarkable from their resemblance to Italian cinquecento ironwork.

Tabernacle doors, too, are often most beautiful specimens of the smith's art, for, being small and precious, peculiar care was bestowed on them. Possibly some sixteenth-century trellised doors in the South Kensington Museum are Flemish, though similar designs were used in other countries. They were more

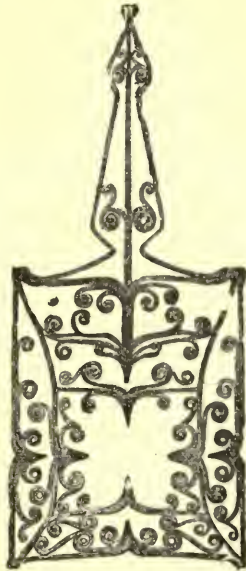


FIG. 51.—Gridiron.

often of pierced plates of iron riveted into a frame, embellished, perhaps, with twisted mouldings and rosettes. A richly pierced specimen, with tracery design, in the Museum, may possibly be Flemish. The most important example is the tabernacle *grille*, or shutter, from the ancient chapel of the Counts of Flanders, at Ghent (Fig. 54), of which we have one leaf in the South Kensington Museum, while two others are figured by Van Ysendeck from a private collection in Ghent. They consist of pierced

sheet-iron panels of three designs, nine of them, let into a stout and decorated frame, forming the leaf. Our somewhat rare English flat ironwork, which ceased with Charles II., was evidently derived from examples such as these.

The Low Countries, and especially Louvain, were more particularly famous, however, for lockwork and domestic door



FIG. 52. —Couronne d'office. Cluny Museum.

furniture — a well-known type of hinge having, indeed, been known for centuries in France, and even with us, as the “Flamand.” These were straps clasping a door on both sides, and ending in an eye working on a hook fixed in the jamb of the door. The latest Gothic hinges were more or less richly decorated straps, frequently ending in *fleur-de-lis*, and these remained in fashion throughout the sixteenth century, as may be



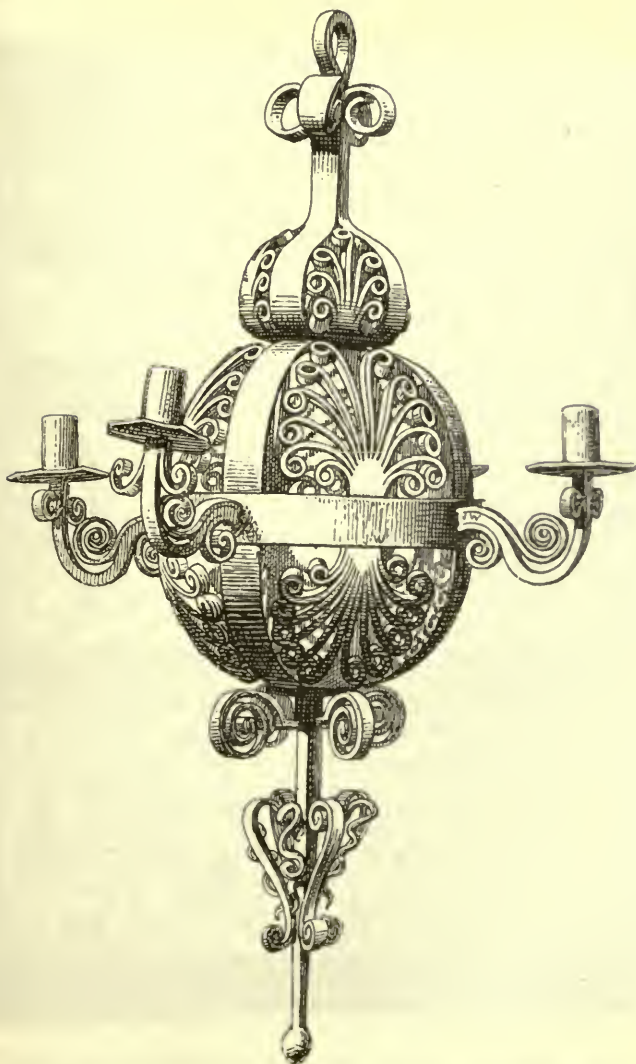


FIG. 53.—Flemish iron chandelier, now in England. Sixteenth or seventeenth century.



FIG. 54.—Part of one of the pierced iron shutters formerly protecting the tabernacle in the ancient chapel of the Counts of Flanders, at Ghent. South Kensington Museum. Sixteenth century.

seen in the Bruges and Ypres Town Halls, though curving Renaissance outlines soon became more usual. When Italian classic panelled doors were introduced, no hinges decorative enough for Flemish taste existed, and they had to be evolved. Designs, evidently based on the Gothic, are seen in the long straps with arabesqued ends, embellished and even fringed with pierced ornament; while a more Renaissance feeling is seen in the spindled ogee outlines, broken by chased dolphins and arabesques, and interrupted by classic mouldings. A short form of hinge was also necessitated by the general use of panelled doors. The designs for these seem at first merely the foliated strap ends seated directly on the knuckle, but afterwards they were converted into **H** hinges, formed of reptiles, fish, or, more commonly, birds' heads. The quietly rich taste of the Netherlander kept the hinges restrained, but when repeated freely, as on presses, they present a sumptuous effect. On plainer furniture, simple strap-hinges were bent rectangularly to follow the framing, with ends cut in a mediæval spirit, or in *fleurs-de-lis*, like those of the presses in the *Salle des Archives* in the Ypres Town Hall, which are also delicately pierced with the *Ave Maria*. A few are particularly slender and graceful, like those to the presses in the Bruges Palais de Justice, formerly the Council Chamber of the Franc de Bruges. An ordinary type is a rather simple strap, expanding towards the centre into a roundel, and at the extremity into an arabesque ornament. Occasionally they are pierced so elaborately as almost to simulate lace, like the rich examples on the presses of the Hospital for Incurables at Liège, and of the Church of St. Trond. Most windows were separated into two or four by fixed frames, to which the glazed casement sashes were hinged, as well as the shutters which covered the glass, which might open in two or four leaves, so as to regulate light in the absence of blinds. All the woodwork was flush, with the hingework and fastenings on the inside face. The hinges were folding straps with two or

more knuckles, when the shutters were in more than one leaf, and these are frequently reinforced with subsidiary straps, following the frames and bent at right angles, so that a single shutter-hinge might possess as many as five decorative terminals. The richer hinges (Fig. 55) were associated with strengthening plates, corresponding in design, at the angles of the frame. The fastenings were also necessarily complicated, and consisted of a pierced plate on the fixed frames between the casements, holding a pair of vertical spring catches, released by pressure of the finger and thumb when the window was to be opened; while pierced plates, with catches on the casement frames held the lifting latches by which the shutters were secured. A rich bi-symmetrical ornament resulted, which formed a bold centre to each set of hinges and angle plates. Altogether so much of the woodwork was covered with bright metal that the window spaces must have been little less brilliant by artificial light when the shutters were closed, than by day. Doors in early periods were fastened by mortise locks with large and enriched rectangular escutcheon plates, on which stout bolts were mounted to act in place of handles. Later ones have plates with arabesque piercings, spindles, and mouldings, with drop-handles instead of bolts; or, sometimes they merely have a richly pierced escutcheon and a slender stirrup handle. Rim locks, when used, were usually large and of relatively coarse workmanship; but an exquisite specimen in the South Kensington Museum, in all probability Flemish, is, however, both small and delicate. This admirable example is oblong, divided into three panels by short, thick spindles. The centre one frames a rampant lion, on a red opaque enamel shield, and the date, 1561, while the others are occupied by pierced arabesques. Drawers of cabinets were furnished with light stirrup- or small drop-handles. Most of the beautiful moulded bar-handles are mediæval in design, and knob-handles are seldom used. Knockers were not in common use, and are very plain, usually formed of two short bars welded together, and shaped into a hammer, diverging towards



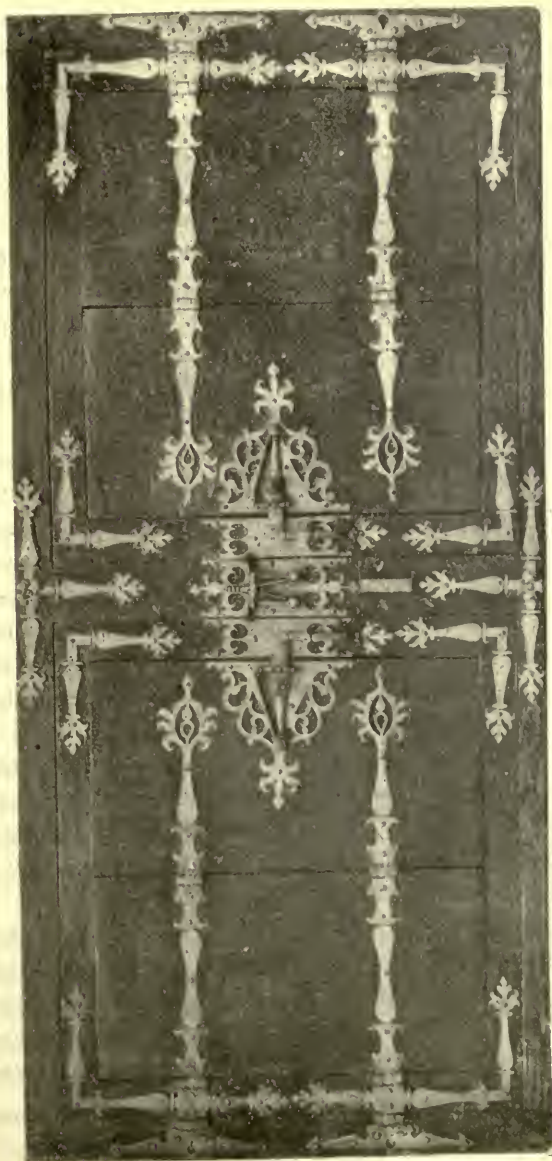


FIG. 55.—Set of shutter-hinges and catches, in the South Kensington Museum. Sixteenth century.

the free end and working in a couple of eyes. Richly worked keys were never in fashion, and there are no special characters to distinguish those of the Netherlands. The *coffre flamand*, a common piece of household furniture in the reign of Edward IV., was an oblong wooden chest, latticed and bound with iron, without much attempt at decoration.<sup>1</sup> Many still exist as municipal and exchequer chests, and in parish churches, but they were wholly superseded in the seventeenth century by the German iron strong-boxes, which also usurped their name. Few iron caskets, apparently, were made in the Low Countries, except the late mediæval *tire-lire*, or hexagonal alms-boxes, which were sometimes profusely ornamented. A noble example stands by the entrance to St. George's Chapel, Windsor.

The influence of all this work on German blacksmithing is quite apparent, though it scarcely did much to sober its exuberance. A study of the specimens in the Ghent, Bruges, and Antwerp Museums also renders it obvious that our Jacobean door and window furniture was but a rude adaptation of the Flemish. Nevertheless, few locksmith designs were published in the Low Countries. Hendrich van Schoel produced at Rome a set of thirty-two plates, comprising some keys and escutcheons, towards the end of the sixteenth century; and some of the very rare auricular designs by Rafael Custos, 1632, are intended for the smith's use. Joseph Bötterman published a treatise on locksmithing at Amsterdam, in 1682, which was translated a century later, and published by Feutry, as a supplement to "*L'art du Serrurier*," in the French Encyclopædia.

The Low Countries, especially Brabant, were once celebrated for the production of armour. Froissart observes that if all the armourers of Paris and Brussels had been at the battle of Rosebecque, 1382, they could not have made a greater clatter. The same chronicler calls attention to the leg armour worn by

<sup>1</sup> Some very richly worked chests appear in old tapestries and pictures, but none such are known to exist.

the Ghent men in 1413, even when on foot. Monstrelet tells us that the King of France, as well as Henry VIII., sent to Flanders for armour and stores; and in Sully's proposed triple alliance against Spain, France was to find the men, England the money, and the Netherlands the stores and ordnance. Evelyn equipped himself with a "suite of armour which I caused to be made to fit me, with the harness of a horsman," at the Hague; but no armour is identified in collections as Flemish or Dutch,



FIG. 56.—Cast-iron fire-back, with figure of Charles V. and his motto, "Plus outre." In the Museum of the Porte de Hal, at Brussels. Sixteenth century.

and few weapons bear armourers' marks of the Low Countries. Cornelis van Bosch, who worked at Rome 1530–60, designed a few sword mounts, and there is an engraving of a sword grip by Cornelis Massys, 1544–56.

Chroniclers lay special stress on the immense siege trains used by the Flemings, as at the siege of Bruges, by Philip van Artevelde, when two hundred carts laden with cannon left Ghent.

These were at first of wrought iron, like the monster "Basilisco" of Ghent, or the "great iron murderer" from Mons; and smaller wrought cannon continued to be produced almost to the time of Elizabeth, notwithstanding the great efficiency of the bronze or cast-iron guns produced at Tournay. This place was famous for artillery, and in 1513 Henry VIII. sent there for thirteen large cast cannon; and both English and French sovereigns were good customers throughout the sixteenth century. The production of small arms also became considerable, and following the example of the French, design books for gunsmiths were produced by De la Feuille, and by Pieter Schenk, in Amsterdam, in 1692. One of the most famous of the Parisian *arquebusiers* of the same date was named *le Hollandois*.

Besides the cannon, some particularly well-designed cast-iron fire-dogs and fire-backs were produced. The one figured (Fig. 56) bears the portrait and motto of Charles V., and another very fine one in the Hôtel de Ville, at Oudenarde, bears his arms and the date 1545. Many grand examples of sixteenth-century fire-backs are to be found in civic halls of Belgium. Later examples have figures and fruit, and can be recognized by swelling outlines into which the dolphin, a feature ever present in Flemish Renaissance ironwork, very usually enters.

What further developments the Flemish school of ironworking might have produced, were lost or but feebly prosecuted on foreign soils. The spirit of the burgher and artisan class was crushed, as we have seen, by foreign aggression, civil and religious wars, and the remorseless Inquisition, among whose victims we find a Massys of the famous Louvain family of smiths, whose wife was buried alive, as a heretic, in the market-place. But while in the Netherlands the smiths' craft was stifled in the Spanish grasp, it is seen to spring up with more than corresponding, with indeed, extraordinary vigour, in the country of the oppressor.



#### IV.

### SPANISH IRONWORK.

THE ironwork of Spain, though as abundant and fine as any in Europe, is relatively little known. That of the Mediæval period has no very strongly marked characteristics, but can generally be recognized, either through some traces of *Mudejar* ornament, or from its tendency to combine distinct French and German elements. Florid or latest Gothic and Renaissance ironwork is distinguished by a redundancy of armorial bearings and by surpassing magnificence.

In Romanesque buildings of Leon, Navarre, and Old Castile, examples of twelfth and thirteenth century screens, identical with the earliest in France and England, are met with, and, like the contemporary hinge-work, appear to be of Anglo-French inspiration. A few keys, weapons, and implements make it clear, also, that the older traditions had not ceased to survive in various parts of Spain; and in the Moorish provinces the smiths are reputed to have been particularly skilful in the manufacture of cutlery and arms. That no more considerable use was made of iron, in the interior of buildings, until the fifteenth century, may be ascribed to the Oriental partiality for rich materials, shared at that time by Spain and the larger part of Italy.

The most important works produced in the fifteenth century are the church screens, made principally of long vertical bars, with rich floriated crestings. Barcelona, which possessed a guild of ironworkers from the thirteenth century, contains in the cathedral a most extensive series of typically Spanish examples of this date.

In general design they resemble each other, but differ in the details and relative richness of their cornices and crestings. They were doubtless produced under the direction of the Spanish architect who completed the cathedral in the middle of the fifteenth century, and were not copied from abroad, notwithstanding a resemblance to some ironwork in the remarkable church of St. Sernin, at Toulouse. The latter is well known, and was considered by Viollet-le-Duc to belong to the end of the fifteenth century, while much of the Spanish work is of earlier date, and differs in being made of round bar iron, and in its superior height, ranging from twelve to fifteen and eighteen feet, thus discovering the peculiar *penchant* for lofty iron screens which developed afterwards in Spain in so surprising a manner. St. Sernin, Toulouse, and the great church of Compostella, built in almost exact imitation of it twenty-two years later, were rivals, both possessing the body of St. James; and much as the French shrine might boast *non est in toto orbe sanctior locus*, the phenomenal devotion paid to St. James of Compostella eclipsed it, and the Spanish-looking ironwork may therefore have been introduced intentionally. The simpler of the Barcelona screens have plain rectangular horizontal bars, and round vertical ones, every fourth ending in a pricket, with half a dozen re-curving liliaceous leaves clustering round. The loftier screens, which close the cloister chapels, have more richly decorated cornices of cusped arches, with crestings of lily leaves and flowers, and, in some cases, one or several pinnacles clothed with curly acanthus or thistle leaves in the manner of contemporary German work. Beneath, under pointed arches, are gates hung on massive and architecturally designed buttresses, with crockets, finials, and mouldings. The gates to the cloisters have, in addition, a border of large quatrefoils under the cresting, and lock and lock-rail of rich flamboyant piercing. The spiky liliaceous leaves are characteristic features in Spanish smithing of the fifteenth century; high church candlesticks and other objects are sometimes embellished with them. Pamplona had, like Barcelona, its guild

of smiths in Mediæval times, and its cathedral possesses a noble fifteenth-century *reja*, as iron screens are called in Spain, to the Capilla Mayor, or sanctuary. This is no less than thirty feet in height, of which the cresting occupies about one-third. Street describes it as "made, as is so usual, with vertical bars set rather close together, and alternately plain and twisted. What the lower part lacks in ornament the cresting more than atones for; it is unusually ornate, consisting of interlacing ogee arches, with crocketed pinnacles between them, all very elaborately hammered up. The horizontal bars and rails are also all covered with traceries in relief, and at regular intervals on these there are small figures under canopies." Palencia Cathedral, which abounds in Flemish and German work, has a screen lightly constructed of twisted vertical bars, with moulded caps and bases—bent at the top into a cresting of intersecting ogee arches, each crowned with a single and much-curved and shredded thistle-leaf,—and a narrow band of delicately pierced sheet iron beneath, forcibly recalling early sixteenth-century German. A fine example, with large cup-like bunches of thistle-leaves in the cresting, stands in front of the Gothic porch to the church of San Pablo, a Dominican convent near the town. There are others of 1490 at Zamora; and fifteenth-century screens or tomb-rails are not rare in Gothic cathedrals and churches. Many protect the tombs in the cloisters at Burgos. A good example guards the rich fifteenth-century tomb of Ordoño II., in Leon Cathedral, and consists of alternating plain and twisted vertical bars, joined by three bands of intricate interlacing ornament. Parts of the borders and cresting of a fifteenth-century screen from Avila are in the South Kensington Museum. The fine top to the *reja* to St. Anne's Chapel, in Burgos Cathedral, though purely Gothic in detail, comprises the arms of a cardinal, and may have gone far to suggest the treatment of the *rejas* of plateresque design which immediately followed. The latest Gothic, the *Gótico florido*, was still used in ecclesiastical building, after the Renaissance style had been generally adopted in domestic architecture.

Threaded lattice-work, rather massive, and of various dates, is not uncommon. It occurs in the gates to the cloisters at Toledo, which, with their band of thistle-like ornament, might well be mistaken for German.

Windows were barred with iron throughout the Peninsula from early times, especially in the old Moorish cities. Either plain bars or threaded lattice-work were used until quite recently, especially in Portugal. The Casa Solar, at Leon, in which Alonso Guzman was born in 1256, is noted for a profusion of iron gratings and balconies. The Casa de las Conchas, in Salamanca, presents some good gratings in the *patio*, or court, and two magnificent examples on the exterior; these massive specimens not only screened and protected the inmates, but excluded the glare of the sun. As we frequently find, though the building is Renaissance, the ironwork is purely Gothic in spirit, consisting of plain and twisted vertical bars, with horizontal bands of pierced work which recite the *Ave Maria*, and present, with their rich foliage, armorial bearings, turrets of Castile and pilgrim shells of St. James, splendid monuments of Spanish dignity and grandeur.

Some of the work we have noticed shows German influence, but many of the finest buildings in Spain were erected by French and Flemings, and their art has on occasions deeply influenced Spanish ironwork. The rich traceried effects, produced by piercing and superposing two or more plates of iron, so popular in those countries, were introduced in Spain, but the work is never so pure and refined as in France. No better illustration could be found than the fire-guard (Fig. 57) in the Louvre, which, with Flemish panelling, combines some *Mudejar* feeling in the cresting, and, in the lower border, a German pierced pattern interrupted by turrets of Castile. Some tall candlesticks, wall-branches, fire-dogs, and other objects, are designed in the same spirit, but they are scarcely numerous. The hexagonal pulpit (Fig. 58), with its fine overhanging canopy, in San Gil, at Burgos, described by Street,



appears to be one of the best examples. The framework is of wood, on which the iron is laid, and the whole is rich flamboyant. A still handsomer pulpit exists in the cathedral at Avila, in which most of the panels and borders are pure flamboyant, but mixed with some entirely Renaissance details, including the dolphins which help to support it on its slender stem. Though so rarely Gothic, iron pulpits are as prevalent in Spain as the iron font-

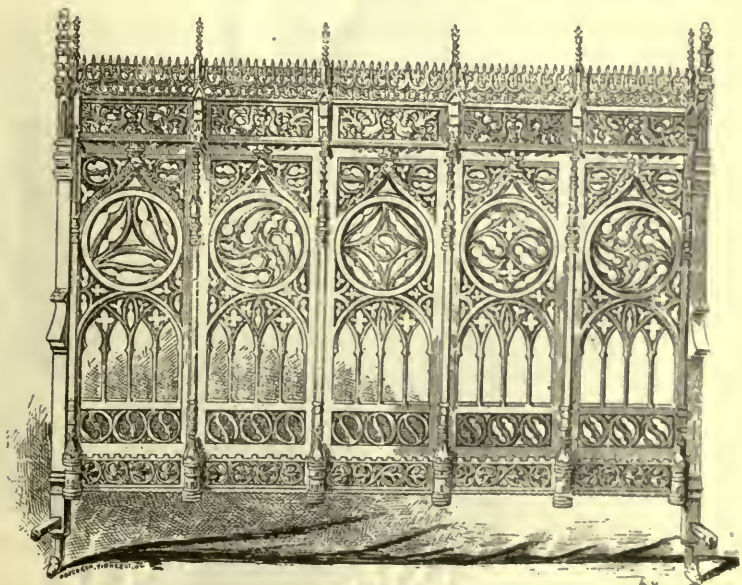


FIG. 57.—Fire-guard in the Louvre. Sixteenth century.

cranes in the Low Countries, and are generally in pairs, fronting each other, one for the Gospel and the other for the Epistle.

Some of the finest pierced-iron flamboyant caskets are regarded as Spanish. A type is met with in most museums in England, and is well represented at Kensington (Fig. 59), consisting of a somewhat flat rectangular box with slightly ridged lid, covered with parallel rows of repeating tracery patterns, worked out of two thicknesses of pierced plate and half-round wire. Such boxes are

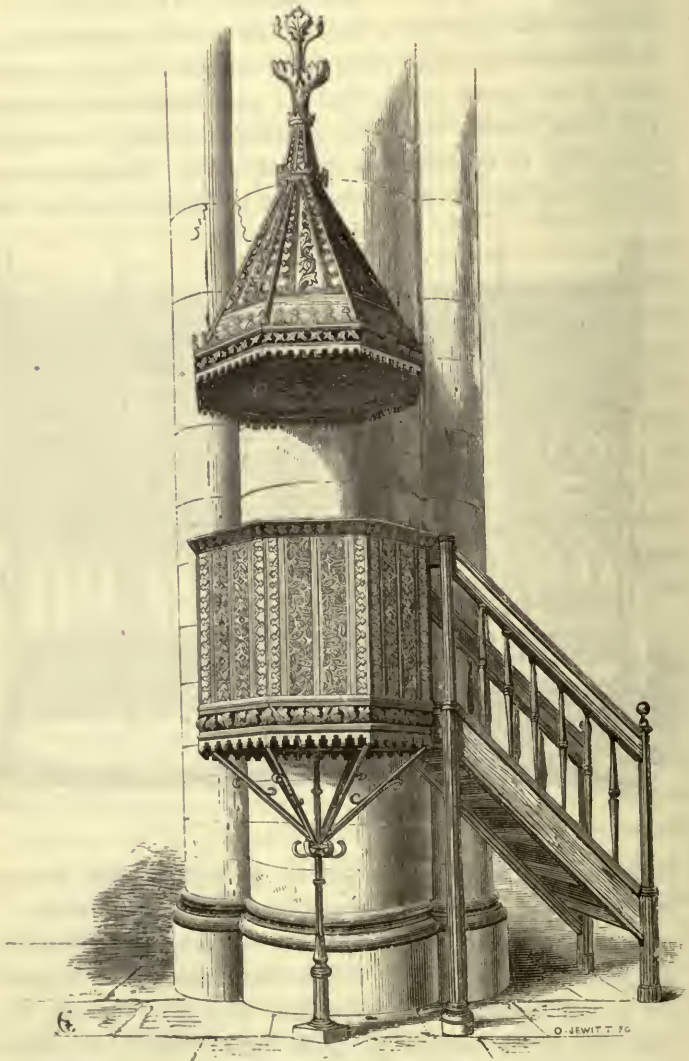


FIG. 85.—Hexagonal pulpit, Church of San Gil, Burgos. End of fifteenth century

usually raised on rudely finished buttresses at their angles, and furnished with peculiar and characteristic lock-plates. The details show little of the taste and refinement distinguishing the contemporary work of France or Flanders; the type is not found in Germany or Italy, and, save the fact of a considerable number of examples existing in this country, there is nothing to encourage us in regarding it as English. The caskets were evidently produced in

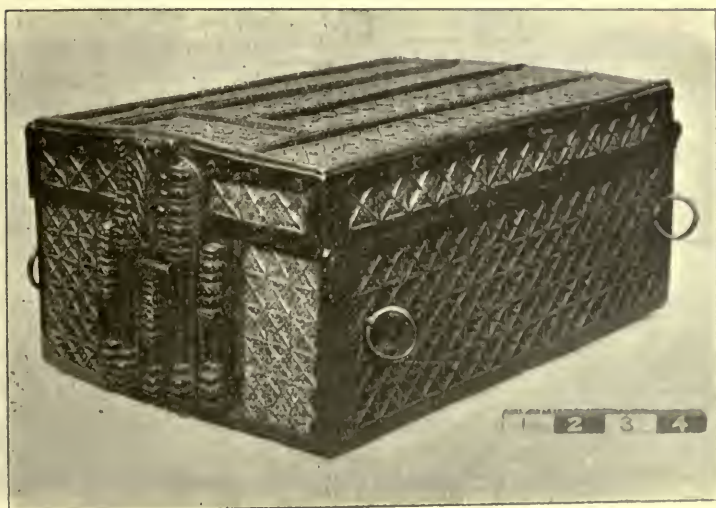


FIG. 58.—Casket in the South Kensington Museum. Possibly Spanish. Sixteenth century.

one spot, and may possibly be identical with those which figure in the inventory of Margaret of Spain, in 1524, as "*bien ouvertes à jour*," in the *manière d'Espagne*. Our trade in iron and ironwork with Spain was considerable in the sixteenth century, and much Spanish ironwork reached us as booty in the spacious times of Elizabeth. Thus, lament was made in 1559 that Spanish iron at only five marks per ton had been excluded in favour of English iron at nine marks, to the great destruction of our forests. But, valuable as Spanish iron was, the Coventry ironmonger who



had three years previously bought some barrels of steel gads or ingots in open market in Spain, and found them filled with silver and cochineal, had no cause to sorrow. Part of the booty of Cadiz, in 1596, was iron valued as high as £14 per ton, and steel as £15; while twenty-three chests of armour were put down at £460, and 100 "murrions" at 2s. 6d. each.

Of less doubtful origin are the trunks and caskets covered with stamped Cordovan leather, strengthened by wrought-iron straps



FIG. 60.—Vargueño cabinet in the South Kensington Museum. Sixteenth or seventeenth century.

ending in scallop-shells, with rich pierced tracery binding, and large locks decorated with the turrets of Castille and shells of St. James. The British Museum possesses a large and perfect example of one of these, only equalled by one at Brussels, while South Kensington has recently acquired a smaller casket with the Peyre collection. The Spanish handbook by Riano, one of this series, also mentions the existence of carved chests with good ironwork, and of an iron coffer at Toledo with carved and repoussé work.

The *Vargueño* cabinets (Fig. 60) made at Vargas, in Toledo,



though of much later date, preserve a somewhat Gothic feeling. They are richly decorated and gilt inside, but the exteriors, of light-coloured wood, depend entirely for their effect on pierced iron plates and bindings, lock, bolts, and handles. The piercing is Arabesque or Hispano-Moresque, generally, if not always, introducing lions, and often with rectilinear outlines bordered with twisted edgings or mouldings. The ironwork was gilt, and laid



FIG. 61.—Knocker and nails on the door of a private house in Toledo. Fifteenth or early sixteenth century.

on red leather slightly let into the wood. These cabinets seem also to be known as *contadores'* chests.

Door-knockers were generally used in Spain. They are varied in design, and frequently based on tracery and architectural forms, with the hammer, ring, or stirrup-shaped striker lined and pounced by the tool. A particularly fine one with serpents writhing round the ring and flamboyant plate was noticed by Street on the north transept door of Pamplona Cathedral. Later, more fanciful

Moors' heads, lizards, dolphins, or dragons, came into fashion. Doors were studded with nails, larger and richer than in any other country, and arranged in patterns or rows in the Moorish manner. The earliest, as well as later, Renaissance nails are bossed into half-melon-like forms (Figs. 61, 62), while late Gothic ones are often shaped into foliage, crosses, or scallop shells, etc. They commonly measure from two to four or even six inches across. They may then comprise quite a cluster of shells, dragons, and other curiosities radiating from a centre. The South Kensington Museum possesses a smaller kind, as well as some remarkable rosettes, forged and welded from the solid.

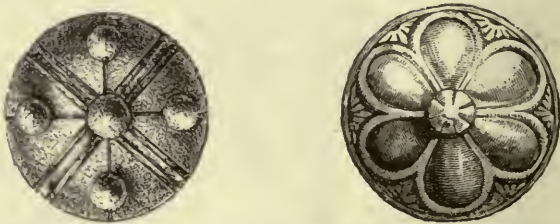


FIG. 62.—Nail heads, in the South Kensington Museum. Sixteenth century,

A still richer effect, borrowed from the Moorish bronze-covered doors of Cordova, Toledo, and Seville, was produced by sheathing doors on both sides with iron. A very early example, apparently regarded as of the thirteenth century, was noticed by Street in the west wall of the cloister of Tarragona Cathedral. One of the doors in a monumental recess of completely Moorish character he describes as "covered with thin iron plates, stamped with a pattern, gilded, and fastened down with copper nails." The principal doors to the cathedral are sheathed in the same way, and diapered all over with roses, within lozenges, like quilted needlework, fastened with copper nails. The hinges are pointed straps decorated with a much finer diaper, and the locks and handles have finely wrought tracery designs. The whole was executed in 1510. Hinges of similar form occur at Valencia.

The west doors of Santa María del Mar, Barcelona, are covered with plates cut into cusped circles or quatrefoils; and the west doors of Huesca Cathedral are also sheathed in iron beaten into a pattern, and fixed by large brass nails. There are some remarkable adaptations of the English crescent and strap form of hinge at Segovia and Toledo, and the *fleur-de-lis* form was in very general use at the close of the Mediæval period.

Spanish locks are not so remarkable, though some, on the

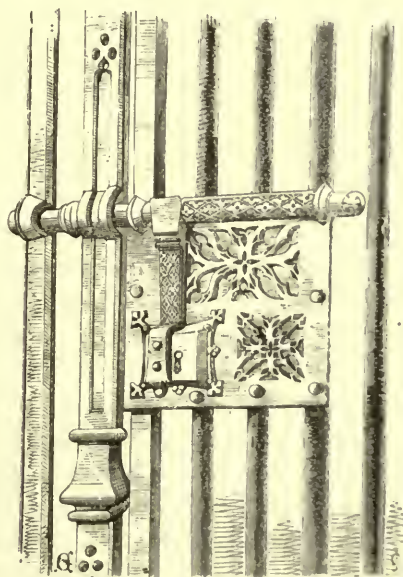


FIG. 63.—Lock on one of the *rejas* in Barcelona Cathedral. Fifteenth century.

Gothic *rejas* especially, are sufficiently rich (Fig. 63). The keys, except perhaps some made by the Moors, are little better than the Italian, though, from certainly the time of Philip II., it was customary for each of the king's favoured ministers to possess a *clave maestra*, or master-key, to the palaces. The houses of the nobility were similarly provided, it would appear from the adventures of Don Quixote in the Duke's castle. Under

Charles II., all the gentlemen of the king's household carried at all times gilt master-keys, admitting to all the rooms of every royal palace, with absurdly large oblong bow handles projecting from the right-hand pocket, and secured by some coloured ribbon. The valets carried the same key, but not gilt. If a key was lost, the loser had to warn the chamberlain, who immediately caused every lock to be changed at a cost, exceeding 10,000 crowns, which had to be defrayed by the loser. Dummy keys were given as badges to officials who had no necessity to use them, and to some few nobles not of the household, as a mark of distinction. They are known to collectors as chamberlains' keys; there is a fine series of them in the British Museum, but they possess no great artistic merit.

The art of damascening was practised by the Moors, and must be of great antiquity in Spain. Some information regarding it will be found in the handbook on Spanish Art, where a writer of the thirteenth century is quoted, who states that immense quantities of steel implements were made in Murcia and ornamented with gold. Many, if not most of the pierced, chased, and damascened purse mounts, scissors, scissor-cases, etc., and some of the damascened cutlery, in collections, is Spanish. The armchair (Fig. 64) from the Lonsdale collection, and now in the South Kensington Museum, made entirely of pierced and inlaid iron, is a late, but splendid specimen of the art, perhaps contemporary with the extraordinary inlays on polished iron of the palaces of Aranjuez and the Escorial, the latter of which has been completed at an enormous cost only in the present century. The well-known work of the Zuluagas and Alvarez is too recent to require notice here, but the monument to General Prim, in Madrid, made entirely of damascened iron, is too remarkable a work to be passed without mention.

The few pieces of Hispano-Moresque armour and weapons that have been handed down are of excellent quality. While Granada, Murcia, Seville, and Almeria were held by the Moors, they were



celebrated for weapons, such terms as "Morion" and "Morris-pike" preserving the tradition, long after the race was expelled, to the ruin



FIG. 64.—Damascened iron chair, in the South Kensington Museum. Seventeenth or eighteenth century.

of Spanish manufactures. Decorated armour, on which grandees have lavished their wealth in all ages, appears rarely to have been made in Spain, at least after the fifteenth century, for even so far

back as 1434 we find the armour used in the great thirty-day passage of arms near Veguellina all of foreign make. The whole of the royal and princely suits in Madrid are also known now to be German or Italian, though many swords and other offensive weapons are Spanish. In the manufacture of these Toledo stood pre-eminent, the marks of its innumerable smiths being found on the blades of the most splendid swords, though the exquisite basketed and swept hilts, into which they are fitted, are not necessarily Spanish work. Quantities of the finest rapiers, destined for the English Romanist nobility, were taken from the flagship captured in the first brush with the Armada. Spanish harquebuses were imported and held in high repute in the sixteenth century; and the thunder of cannon in European battle was first heard on Spanish soil in 1340, six years before Crecy. In later years, guns were cast in many Spanish foundries, sometimes to English orders, as in the case of the "Columbyne" made for Henry VIII. at "Fountraby in Spayne," at a cost of £18 10s. The noted superiority of the cutlery, such as the scissors and *navajas* or pointed knives, as well as of the weapons, was due mainly to the marvellously rich peroxides and other ores of Bilbao, whence the "good Bilbos" of Shakespeare. There are also rich mines at Somorrostro, Mondragon, Albarracin, Marbella, and Villar del Salz, which are worked at the present day.

The Renaissance architecture and ornament of Italy took root on Spanish soil at a period of unbounded wealth and prosperity, and developed rapidly into one of the most distinctive and magnificent of the styles of art that Spain has produced. This is known as the "*plateresque*," so called from its ornament, which was at first of such delicacy as to be likened to the work of the *platero* or silversmith. The ironwork accompanying it remained for the most part *Gotico florido*, until the early refinement of the architectural ornament began to give place to richer treatments, and to comprise much figure-work, which at first had been excluded. Then the ironwork also became of so grand and impressive

a character as to confound all our previous conceptions of the capabilities of the material. The limits that its stubborn nature, and the technical difficulties of the craft seem to impose are disregarded, and, in contemplating the colossal *rejas*, or screens, in the great Spanish cathedrals, it is hard to realize that effects in iron must be got swiftly by the hammer and punch while the iron is hot, or tediously by the file, chisel, and drill while it is cold. Hitherto, spindled balusters with mouldings had rarely been attempted in hammered iron, or merely produced in twos or threes, but, in the screens and railings of the later *plateresque*, we find them in ranks and rows, and literally in thousands. They actually appear commoner than plain rectangular bars, and, as if to excite greater astonishment, whole rows of them are embellished with foliage carved out of the solid. Human figures, so rarely attempted by the smith, except in minute size, are not merely introduced singly or in pairs, but in multitudes, and the master ironworkers have not hesitated to attempt even the portrayal of scenes and historical events. The character and execution of this figure-work make it impossible to believe that those who produced it were only smiths, and we find, in fact, that the masters who signed their names to such magnificent productions are spoken of by contemporaries as sculptors and architects, and were in two or three instances in holy orders. They were, indeed, artists of the highest rank.

In setting themselves to such almost superhuman tasks, the Spanish ironworkers were, after all, only keeping pace with the unprecedented expansion of wealth and prosperity under Ferdinand and Isabella. The activity of the smith we have more than once observed to be a gauge of the condition of his country, and in this instance it is no more than commensurate with the unexampled exaltation, and inflated grandeur of Spain, following the conquest of Granada and the discoveries of Columbus. The greatest strides—when the smiths courted difficulties, and revelled like Titans in their work—were made prior to 1520, though increasingly rich and imposing effects were produced,

but obtained in less legitimate ways, until 1550 or 1560; and the erection of sumptuous iron screens did not cease, it is curious to observe, until the final expulsion of the Moors in 1609. That the development was due in any considerable degree to the patronage and encouragement of the Spanish monarchs, of Charles V. or Philip II., is not apparent; in fact, the superb and costly suits of armour for their personal use and adornment, which might so evidently have been produced at home, were ordered from abroad, no single suit of these periods being known to be of Spanish make. Nothing less than the expansive and exuberant spirit of the nation and people could have produced these prodigies of smithing, and of it they can only be regarded as most triumphant and tangible proofs.

The internal planning of Spanish cathedrals lent itself most happily to the use of ironwork at this time. The choir in nearly all was towards the centre, as in Westminster Abbey, the easternmost part being occupied by the *Capilla Mayor*, which enclosed the altar. The east end of the choir, or *Coro*, and the entrance to this chapel fronting it, separated by the width of the transept, were both closed with lofty iron screens, or *rejas*, with low railings of iron or bronze connecting them. The screens were in some cases continued across the aisles, or quite round the three sides of the *Capilla Mayor*, while the numerous chapels which fringed the cathedral and cloisters were also frequently thus closed. The *rejas* to the *Coro* and *Capilla Mayor* rose majestically to a height of forty feet or more in Seville, Toledo, Granada, and Burgos Cathedrals, and, being mostly the work of different masters, competed with each other in magnificence. Admirably conceived to veil, without concealing, the choir or altar, their height is such that the eye is scarcely carried over them without an effort, while the protection they offer is all but absolute.

Though late flamboyant and classic details are frequently mingled, the final transition from one to the other is abrupt. The grand lines of later *plateresque* designs were, however, already



sketched in such *Gotico florido* examples as the screen to the chapel of Santa Ana, in Burgos Cathedral. The happy idea of the replacement of plain or twisted rectangular bars by spindled balusters, which led to such important departures, must evidently have been an individual idea, due, no doubt, to one of the great masters who changed their style with the times, like Friar Francis, of Salamanca, or Juan Francis, who is said by Riano to have been working at Toledo in 1482. On the cresting of a screen from Avila, in the South Kensington Museum, we read "obra de maestre Juan Francis, maestre maior de las obras de fieror," set out in pierced lettering of the character used in the time of our Henry VIII. The portion (Fig. 65), with long attenuated and splendidly forged spindly balusters, and another piece with shorter balusters carved with foliage, also from Avila, probably formed part of the same screen, and seem to preserve a lingering trace of *mudejar* in the small pointed arches between the spindles. The construction and workmanship of a plateresque *reja* can be studied at leisure in these fragments, and we see that the spindles only are forged from the solid, the massive-looking square or round pilasters which give so much dignity to the whole, and some of the cornice-work, being like the Gothic pulpit of San Gil, merely of wood cased with thin *repoussé* iron, though the masks and other Raphaelesque ornaments are splendidly executed in the purest Italian taste. The figures in the cresting are also of thin iron, embossed in two halves, and joined to form the round. Though undated, it was probably made in about the first decade of the sixteenth century. The screen of the principal church of Avila, and that of the *Capilla Mayor* of the collegiate church which has disappeared, were, with perhaps the fine ironwork in the windows and about the University of Alcala de Henares, by the same artist. This University was raised as a rival to Salamanca by the great Cardinal Ximenez; it was finished in 1533, and is interesting as the birthplace of Cervantes. The exquisite pulpit in embossed and gilded iron, dated 1525, which stands in Avila Cathedral,

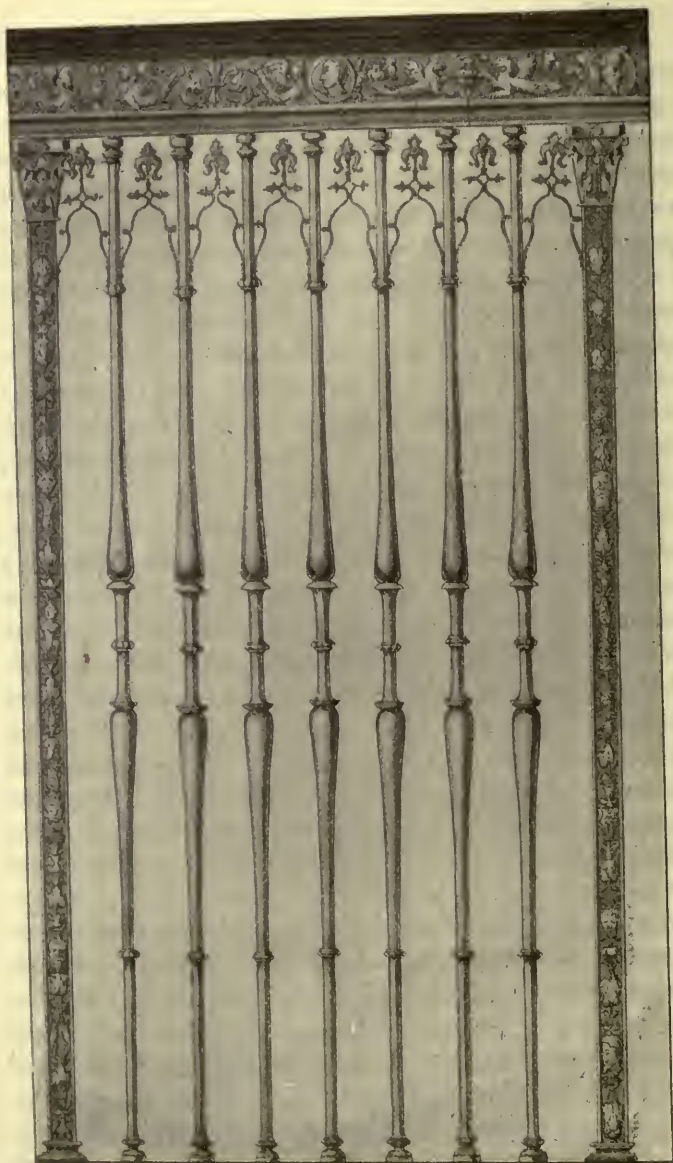


FIG. 65.—Part of a screen (*reja*), from Avila Cathedral, by Juan Francis. In the South Kensington Museum. Late fifteenth or early sixteenth century.

and is one of the recognized gems of the *plateresque*, may perhaps also be by the same master.

In the Puerta del Cardo, a late Gothic doorway in Leon Cathedral, stands a gate of attenuated spindles with chiselled foliage, with a narrow beaten frieze, which introduces panels of purely flamboyant tracery, like strips from the pierced caskets,<sup>1</sup> on the face of two of its small plinths. A more fantastic specimen, with many traces of Mediæval design, is seen in the screen surrounding the chapel of San Bartolomé in the old cathedral of Salamanca, founded by Diego de Anaya, Archbishop of Seville, in 1374. The cresting is a curious assemblage of heathenish figures and candlesticks, and other details too complicated for description, and the bars are plain round and twisted. The archbishop's name occurs in pierced black-letter characters, and the details in general are unusual.

The superb tombs of John and Isabella of Portugal, and their son, the Infante don Alonso, which were completed by Gil de Silve, in 1493, in the Carthusian monastery of Miraflores, near Burgos, are protected by iron screens of late Gothic design, with Renaissance foliage. They are the work of the celebrated friar, Francisco de Salamanca,—for some time an inmate,—who also commenced, if he did not stay to finish, the *Gotico florido* choir screen. He also made an elegant one for the Chartreuse of Poular, and then became a Dominican. His grand work is the *reja* to the *Capilla Mayor* of Seville Cathedral, produced between 1518 and 1533. This is purely *plateresque*, with three tiers of spindled balusters divided by the usual, partly wooden, massive-looking pillars sheathed in richly embossed iron. In addition to the sumptuous frieze of finely modelled medallions and arabesques with figures, a lower and equally rich border intersects the screen, while the cresting is a truly marvellous work, abounding with saints and angels within scrolls, or standing on pinnacles among tall candelabra. There is, in addition, a magnificent panel, forming a central feature,

<sup>1</sup> See p. 95.

with a representation of the Entombment in embossed iron, comprising many admirably designed and quaintly costumed figures. The superb iron pulpits by Francisco are dwarfed into insignificance among the many colossal gilded *rejas* which Seville Cathedral boasts. Other works by the same master are the screen in the convent of Guadalupe, and that of Salamanca Cathedral, with perhaps some of the work in the University of this, his native city.

Among the great gilded screens of Seville, that to the *Coro*, was wrought by Sancho Munez, of Cuenca, in 1519. The central mass is in this instance of twisted bars, with the great cased wooden pillars at intervals, making a lavish display of exquisitely embossed sheathing and Corinthian capitals, and with a tier of spindled balusters above and below. A frieze of the richest work, comprising the heads of five of the Apostles in medallions, is surmounted by a heavily moulded and fretted cornice, and this, again, by a cresting representing the tree of Jesse, with many dignified figures and much fine scroll-work, divided by towering candelabra. The screens of the sides of the *Capilla Mayor*, which are 30 feet high, very varied, and scarcely less rich in design, are also by Munez, who produced them in 1518. Of the numerous examples closing chapels in the same Cathedral, those to the chapels de la Gamba and de la Antiqua are noteworthy, though eclipsed by the Conception and Annunciation ones, which abound with armorial bearings and have representations of the events after which are named the chapels that they shut off.

Cuenca Cathedral is also noted for its screens, especially those to the de los Caballeros, de los Apostoles, San Juan, Munoz family, and other chapels. Mr. Prentice has published beautiful drawings of some of these, as well as of the fine screen at the back of the altar, which includes some exceedingly delicate figure-work and bears a tree of Jesse, filling in the arch above, doubtless by Sancho Munez. The most important *reja*,



however, in Cuenca Cathedral, is that to the *Capilla Mayor*, produced, in 1517, by Hernando de Arenas. Some 45 feet in height, it is of vertical twisted bars, breaking into knops and mouldings, and the usual cased wooden pillars. It is separated horizontally into two stages by a band of scrolls and cupids, surmounted by a corresponding frieze, and capped by a most elaborate cresting ten feet high, formed of a row of tall candelabra, rising from foliage, with cupids and perching birds. Some delicate *mudejar*-looking arches between the vertical bars impart a relatively early look.

Christobal Andino, another notable smith, produced, in 1520, the great *reja* to the *Capilla Mayor*, in Palencia Cathedral, and received for it fifteen hundred ducats. It consists of two tiers of massive spindles with chiselled foliage, each with a narrow frieze of embossed scrolls and honeysuckle, while the whole is surmounted by a cresting of enormous candelabra and scrolls with shields of arms. The design is thus comparatively simple, with an absence of all figure-work except a small rood; but the effect is majestic, dwarfing, however, as usual, the fine pulpits, associated with it, into insignificance. The screen to the Capilla de San Pedro is not dissimilar, and is perhaps that for which he received 430 ducats in 1530. The fine *reja* of the Capilla del Condestable in Burgos Cathedral produced in 1523, is, however, generally considered his masterpiece, and is one of the grandest in Spain. It also consists of two tiers of the utmost richness surmounted by a pediment, beneath which are the Constables' arms, supported by two kneeling figures, and the signature "Ab Andino." Other works by Andino are the screen to the Chapel of the Presentation, in the same cathedral—a magnificent work quite typical of a style which has many peculiarities—and another for the church of Santa Cruz, at Medina del Rio Seco. In 1540, he had the mortification of competing unsuccessfully for the screens and pulpits for Toledo Cathedral.

The steep slope on which Burgos Cathedral is built necessitates a descent of thirty feet from the north transept door to the nave, by a double flight of steps. Advantage has been taken of this pretext for the display of a marvellous specimen of wrought ironwork. The balustrade to the landing nearest the door, at the top, is of moulded posts, on richly corbelled brackets, between which are medallions of angels and saints within wreaths of laurel. The upper flights continue with a different design of richly embossed square posts, with smaller portrait medallions over foliated arabesques. The half landings are still richer, and, in the lower flights, the design again changes to round posts with cherubs' heads in full relief over dolphin arabesques. It was designed by Diego Sylve, and the work, carried out between 1519 and 1522, has been attributed to Christobal Andino. This *escalera dorada* is the richest work that can be imagined in wrought iron. Owing, however, to the draught in the church, the doors have been blocked up and disused for upwards of a century.

Bartolome, equally famous as a sculptor and ironmaster, worked at Seville and Jaen; but his *chef d'œuvre* is acknowledged to be the magnificent screen to the Royal Chapel at Granada, produced between 1520 and 1530, and bearing the inscription, "Maestro Bartolome me fec." This was regarded by Digby Wyatt as the best in design, and the most imposing of Spanish *rejas*. It is divided into three stories, diminishing in height from the base, by two massive-looking friezes, the lower embossed with medallions and figures, the upper with a honeysuckle border. There are the usual round and square wood pilasters sheathed in superbly embossed iron, and with Corinthian capitals. The vertical bars between are of twisted iron, breaking in the centres into leafwork and open tracery in two of the tiers, and into cherubim and foliage in the third. The pilasters of the upper tiers are furnished with canopies and statuettes of the Apostles. Over the doors is an immense panel containing the arms of the Royal personages within, with their supporting lions, and eagles, and

other insignia, and a profusion of angels. In addition to all this richness, the cresting is extremely lofty ; it is formed of tall candelabra, connected by the richest possible arabesques, which form canopies over a series of representations of scenes from the life of Christ, the figures being beaten in the round, and almost half the size of life. The figures appear extremely well modelled, and are artistically grouped so as not to diminish the repose and dignity of the work as a whole. The gilding and colouring is suitable.

Domingo Cespedes of Toledo was another notable smith, whose work is best seen in the cathedral of his native city. The screen to the Chapel of the Holy Ghost, produced in 1529, is elegant, and presents some original features. That to the baptistry is grander, with a panel over the doorway representing the baptism of Christ, under some arabesques, and a large pyramidal top with scrolls and the arms of Fonseca. In these works he has preferred twisted vertical bars to spindled balusters. The *reja* to the *Coro* is regarded as his best work, though only some twenty-five feet high, and much lower than those hitherto noticed. The chapter seems to have been critical in the case of this, and required a wood model to be submitted before ordering it. The screen to the *Capilla Mayor* opposite was competed for. Though the work is most elaborate, its effect is simple and imposing. It consists of a row of tall spindled balusters, thirteen feet high and richly chased, on a low base, and with a cornice of similar spindles. The main pillars are superbly chased, but are of bronze, and perhaps by Fernando Bravo, who helped complete the work. The cresting is more restrained than usual ; the figures are in the round, not flattened as in the earlier examples, and the candelabra are partly wood. It was not finished till 1548. The above-mentioned great *reja* facing it is by Francisco de Villalpando, who competed for the work in 1540. It is more ornate, and is also partly in bronze, in which Villalpando preferred to work. The gilt-bronze pulpits, the bas-reliefs of the *Puerta de los*

Leones, the font, and the rail to the Altar of the Virgin in the choir, were by him, as was also the choir-screen in the Cathedral of Palencia, his native city. In design this is similar to that at Toledo, but the cresting is heavier and richer, and bears the arms of Cardinal Ximenez, and other prelates, surrounded by banners, medallions of the Evangelists, arabesques, and figures. Ford gives its date as 1561, and Street states that it was made by Gaspar Rodriguez, in 1555, for three thousand six hundred gold ducats bequeathed by a Bishop de Vaca; but the date, twice repeated on the base, is 1522. The pulpits in the cathedral are by the same master.

The growing tendency towards over-richness and elaboration was checked by a reaction in the direction of Greco-Roman art, and the later of the great iron screens became low, and horizontal rather than vertical. That of the *Coro* of Plasencia Cathedral, by Juan Bautista Celma, is low, restrained, and architectural, but with the usual elements of design, and surmounted by an Assumption of the Virgin on a pediment. Another to the *Coro* of the new cathedral, El Pilar, of Saragossa, made between 1574 and 1579, is the same in general treatment, but finer, and is attributed by Ford to the same master, and by Riano, in his handbook, to Cela. A third screen, chiefly of bronze, closes the burial chapel of Gabriel de Zaporta, who was laid in the old Cathedral of Saragossa in 1579. This appears to be of the same workmanship. Celma was a celebrated worker in bronze, and produced the pulpits at Santiago in 1563. He and Cela, if not the same individual, were contemporaries, were both Aragonese, and both worked in the same style.

This brief review of the great *rejas* has brought all the most celebrated smiths of the sixteenth century under notice. The work of Christobal de Salamanca, in the monastery of Montserrat, has been omitted, though, if it resembles the magnificently carved balusters, or the embossed cresting of the gates to the University Library of Salamanca, it is second to none. One or



two other names, like *Idrobo*, have been considered worthy of mention by some authors, and the work in the Cathedrals of Oviedo, Pamplona, Segovia, Sigüenza, Santa Casa, Salamanca, Tortosa, and others, would require a full notice in any comprehensive treatise on Spanish ironwork. This was not only used in churches, but *plateresque* buildings generally are provided with handsome window gratings and balconies of the same work. Forged spindle balusters are used in countless thousands,—as commonly, indeed, as rectangular bars in England—the only competing forms being twisted bars or bars opening out into some heart or lozenge form. A fine *plateresque* door-knocker (Fig. 66) in the South Kensington Museum is carved in the manner of the screen-work; and a cloister screen, dated 1558, has been made up into gates, and presented to Chester Cathedral by the Duke of Westminster.

With the close of the sixteenth century, the sun of Spanish grandeur was setting, and its wealth and wondrous energy were becoming exhausted. The *plateresque* was dissolving into the Jesuit *Borromenisco*, or baroque. In this the use of ironwork was maintained, but it was no longer wrought with the same magnificence. The arrangement of the houses in the



FIG. 66.—*Plateresque* door-knocker. South Kensington Museum.

favoured towns of Andalusia especially, necessitated open ironwork gates, called *cancels*, to the *patios*, or inner courtyards, and cage-like balconies to at least the first-floor windows. An anecdote in the second part of Don Quixote shows that upper windows also were sometimes protected early in the seventeenth century. The defensive value of gratings to the ground-floor windows was witnessed by the English minister late in the seventeenth century, when the Conde de Oreposa's house was attacked during a riot in Madrid. The mob was baffled by the iron window grates, and though it at last succeeded in tearing some down, only a few could enter, who were easily overcome. A passage in the second part of Don Quixote shows that gardens were provided with iron railings at least as early as in 1615, and it is not uncommon to see even quite insignificant vineyards so enclosed at the present day.

Weather-vanes and finials were commonly used, generally in the form of crosses, or of small pennons surmounted by a cross. The figures made to move with the wind, like the famous Giralda of Seville,—produced in 1568,—a bronze figure of Faith, fourteen feet high and weighing no less than 25 cwts., were exceptional *tours-de-force*. Astorga Cathedral possesses the wooden image of a gipsy, borrowed, perhaps, from the celebrated armed Moor of Granada, removed in 1817, whose lance, however, perhaps alone turned with the wind.

The iron structures on palaces and public buildings, in which their bells were hung, form picturesque objects, and Lugo Cathedral had a chiming apparatus of iron, in the Flemish manner. Wells in courtyards were also surmounted with light iron structures for the pulleys and buckets, but none are of rich or particularly remarkable work.

The French rococo passed into Spain as elsewhere, but its elegance and comparative restraint were not appreciated by the Spaniards, who only took hold of and exaggerated its worst features. It is currently known as the *Churrigueresque*, from the

architect Churriguera, whose mission seems to have been to try to conceal Spain's decay by grandiose and laboured architectural efforts. It is impossible to admire this work, but nice effects were sometimes produced in the simpler ironwork designs. That to La Granja, built in 1720 by Philip V. in imitation of Marly or Versailles, and that made by Destriches, for the king, in Portugal, are refined and purely French.

## RENAISSANCE IRONWORK IN FRANCE.

THE fifteenth century found France renowned for ironwork *pris dans la masse* or chiselled from the solid, "in the French manner" as it was termed in Italy. French skill in ironworking was particularly lavished on works needful to secure their homes and treasures, as locks, keys, bolts (and knockers), coffers, caskets, gratings, and screens; much more rarely on timepieces and furniture. Unlimited time and consummate knowledge were expended in these productions, and they may easily be discriminated from the similar but inferior ones of neighbouring countries, by a peculiarly artistic and even poetic refinement characteristic of French art in the fifteenth and sixteenth centuries. The designs are conceived in the finest late Mediæval spirit, purely architectural, introducing every detail of rich flamboyant on a minute scale, with figures or groups of figures, canopies, pinnacles, crockets, mouldings, carved from the solid, and backgrounds of intricately traceried plate-work. This work remained in vogue, with a few notable exceptions, throughout the Renaissance period in France, being quite commonly found with woodwork from which all Mediæval feeling has disappeared. In fact, locks and keys with most elaborate Gothic tracery were produced in France, under certain circumstances, until the reign of Louis XVI.

Italian influence first banished the style from Court circles, and it was gradually relegated to more and more remote provinces, to perhaps finally die out in Brittany within our own days. We



first miss from doors and furniture the long strap-hinges, covered with delicate flamboyant piercing; next the knockers, bolts, and the jewel-caskets, and lastly, the locks, to which the greatest elaboration had habitually been given.

Late Mediæval French knockers, of excessive elaboration, are therefore rare, especially as knockers fell almost into disuse under

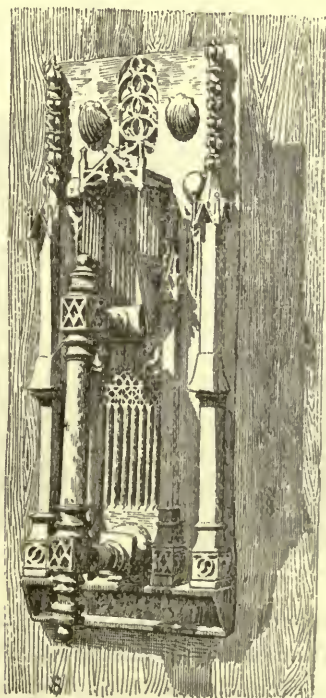


FIG. 67.—Knocker from Jacques Cœur's house at Bourges. Fifteenth century.

the last Valois kings. Nothing finer, however, could be produced of their kind than the richly traceried canopy and niche, sheltering the hammer formed of a most spirited St. George, on horseback, slaying the dragon, and the companion example with St. Michael, now at Florence. A specimen in the Troyes Museum has a naked boy, holding a chequered shield for a hammer, and another a saint,

with enriched backgrounds. One of the same type, but with a dragon for the hammer, is at Dijon, and a similar specimen exists at Châteaudun. Another (Fig. 67) scarcely less rich, remains *in situ* on Jacques Cœur's house at Bourges. All these are carved, chiefly from the solid, in the grandest style of Mediæval art, the treatment being in all French specimens, whether elaborate or simple, vertical, compact, and restrained.

The forms of the caskets are no less characteristic, for the typically French varieties are but two. The most usual is the steel

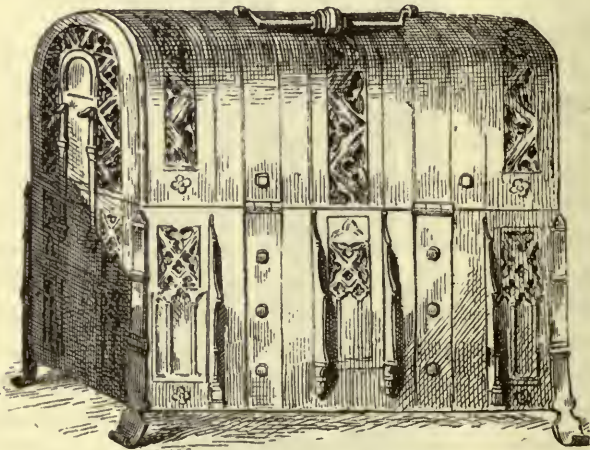


FIG. 68.—Iron casket. French. Fifteenth century.

box, eight or nine inches long, with a barrel lid (Fig. 68), bound with bands and plates of iron, pierced into tracery or inscriptions, and supported by carved buttresses forming feet. A bent handle at the top is very delicately worked with mouldings, and has ends finishing in minute dragons' heads. This form is ancient, for one was found at Caumartin, near Crecy, filled with rose nobles, principally of Edward III. The many steel caskets mentioned in French chronicles were probably of this form. The second type is of wood, with a flat top, often covered with cuir-bouilli, bound with similar ironwork (Fig. 69), and provided with

a similar delicate handle and a lock. Louis XI. bought one of gilded wood, with brown steel mounts, for his private seal, from Laurens Volvic, in 1481; and Charlotte of Savoy's jewel-case is described in 1483 as of wood *ferré de fer blanc*. The genuine French caskets can be distinguished by the exact care and knowledge with which the architectural mouldings, buttresses and tracery are reproduced in the iron.

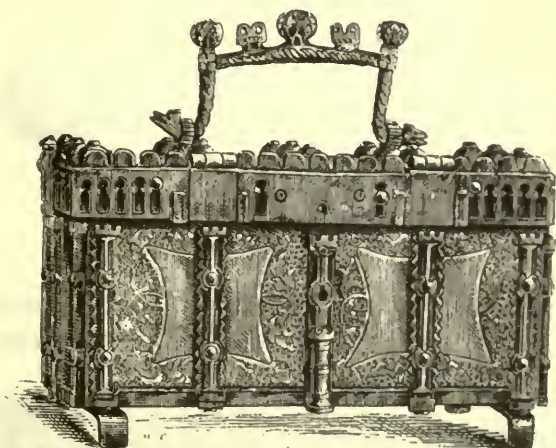


FIG. 69.—Wood casket, bound with iron, and covered with stamped leather. French. Fifteenth century.

The fifteenth century also introduced complicated locks with several movements, often requiring separate keys. The Duke of Burgundy prudently placed the guild banners of Ghent under locks requiring the consenting presence of five different officials to release them; while Isabella of Bavaria was so solicitous about her maids in the Hôtel St. Pol, that their sleeping-apartments were secured by locks, likewise requiring five keys to open them, made by Berthelot, of Louvain, in 1496. These locks could only be opened from without, the doors being secured on the inside by bolts (Fig. 70), either separate, in pierced sheaths, or combined with locks. The most usual type of door-lock is a square or oblong architectural panel with tracery, and with some group



under a canopy, such as the Virgin and angels, to conceal the key-hole, and an angel or other figure holding a shield of arms forming the handle of a bolt, to be shot independently of the key.

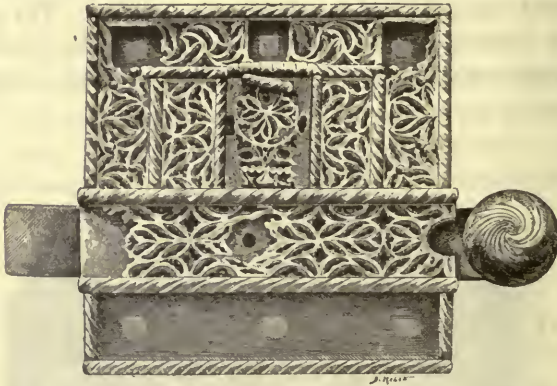


FIG. 70.—Bolt in pierced flamboyant case. In the Cluny Museum. Late fifteenth century.

By far the finest locks were made for buffets and wardrobes, and the magnificent *bahuts*, or coffers, in which valuables were

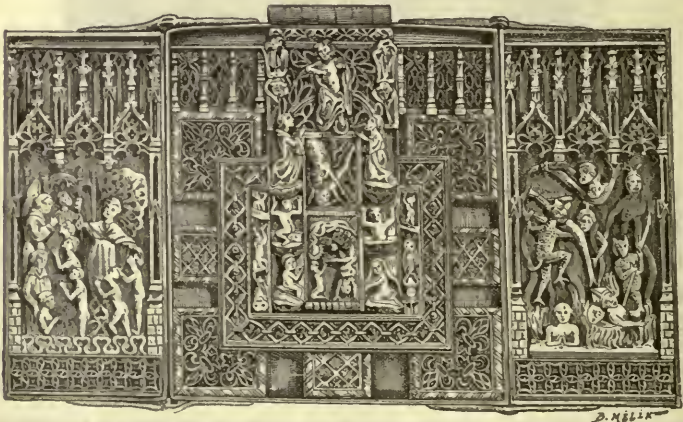


FIG. 71.—Chest-lock with representations of the Last Judgment. Formerly in the Spitzer collection. Early sixteenth century.

stored. It is hard to describe the sumptuous richness of the architectural decorations of the most elaborate of these, such as the



extraordinary triptych lock, representing the Last Judgment, with thirty-five figures, of the dispersed Spitzer collection (Fig 71), or the still richer one purchased by the late Sir Richard Wallace for thirty thousand francs. Some doubt, unfortunately, must always exist as to the authenticity of such pieces, for which enormous prices are paid, in the absence of pedigrees. The Cluny Museum possesses one representing the Almighty and the Twelve Apostles, under separate canopies (Fig. 72); while others exhibit the



FIG. 72.—Lock, with figures of the Apostles under canopies. In the Cluny Museum. Late fifteenth century.

Crucifixion, Last Judgment, Communion of Saints, etc. Others, less ecclesiastical, like the superb specimen bearing the arms of France and Brittany, made for Louis XII. (Fig. 73), are equally rich. The display made by locks and bolts on presses, and their decorative effect, is well seen in the Sacristy at Evreux, or on the large one in the chapel of the Hôtel Cluny. An hôtel in the Rue Bourdonnois was described in 1422 as one of the curiosities of Paris, from its possessing as many locks as there are days in

the year. The keys at this period, though artistic, by no means received the lavish care bestowed on the locks. The producers of these *chefs d'œuvre* are unknown; but the seventeenth article of the *Statuts des Serruriers*, under Charles VIII., in 1411, commands apprentices aspiring to become masters to produce a masterpiece

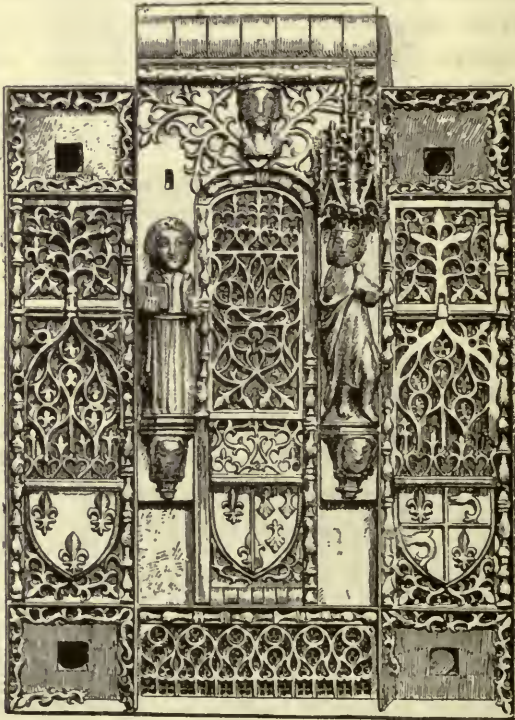


FIG. 73.—Chest-lock, with the arms of France and Brittany. In the Cluny Museum. Early sixteenth century.

lock, which, with its elaborate ornaments and key, would occupy one or two years. In the fifteenth century, these locksmiths were the most powerful corporation of Paris, but on the entry of Henri II, in 1549, they appear as only fifth in importance, though represented by sixty well-equipped men.

In face of the taste for extraordinary elaboration, it is not surprising that larger works were seldom undertaken, but we sometimes meet with very rich pierced-iron tabernacle doors, such as those from Rouen and the Abbey of St. Loup, at Troyes, and with clocks identical in workmanship with the locks (Fig. 74). The smiths, in fact, were the only clockmakers of the Middle Ages. One named Jean d'Allemagne made a clock for



FIG. 74.—Clock of pierced-iron tracery. Fifteenth century.

the Duchess of Orleans; another, Pierre Cormier, restored the clock at Plessis-lès-Tours, for Louis XI., and the same king, on entering Arras, was frightened, by the smith who had charge of the town clock suddenly descending from the steeple, in full armour, and seizing his bridle. Anthoine fitted up that at Tarascon, and Saunois repaired the clock and supplied the still existing Jacquemart at Dijon. The names of three smiths appointed,

successively, clockmakers to the City of Amiens are also preserved.

The craft had reached, in workmanship, a culminating point, which left no room for increased perfection when the classic



FIG. 75.—*Repoussé* bolt and case. In the Louvre. Sixteenth century.

style was abruptly introduced into France, and it was long before the change was generally adopted by the smiths. It is first seen in the locks and bolts made for François I., who disbursed large sums to his locksmith, Antoine Morisseau, for works executed at Fontainebleau, the Château of Madrid, near Paris, and the



Château of Villers. In these solid chiselled work (*pris dans la masse*), the glory of French ironworking, is abandoned, and the cases are made of thin *repoussé* iron, with arabesques, in the Italian fashion. The oldest specimens appear to be bolts in rectangular cases covered with rich Italian embossed ornament (Fig. 75), the handles only being carved, into lions' or warriors' heads, or rosettes. The later cases are usually elliptical in outline. Under



FIG. 76.— Embossed and chased lock of the Henri II period. In the Cluny Museum. Sixteenth century.

Henri II, architecture and art were less immediately dependent on Italians—a brilliant school of Frenchmen, who had enjoyed the advantage of study in the great art studios of Italy, but without losing their individuality, assuming the control. The lock fronts, beaten in relief from sheet iron, take the architectural lines prevailing in French ornament of the period, and represent Corinthian porticos, with garlands, caryatides, draped figures, or

combats, mingled with a profusion of royal arms, ciphers, and



FIG. 77.—Embossed and chased lock, representing a combat. Sixteenth century (Henri II period). RAM 77.



FIG. 78.—*Repoussé* lock, with the cipher of Anne de Montmorency. From the Château of Écouen, now in the Cluny Museum. Sixteenth century.

badges (Figs. 76, 77, 78). It is illustrative of the times that nearly all the ironwork made for the king, of which an immense

quantity exists, bears the crescents, motto, or monogram of Diana, the *grande sénéchale*, interlaced with his own. Her chamber doors at Anet were fastened by three large locks, secured by a double turn of the key, and her chimneys—a favourite mode of ingress for gay gallants—were closed by iron gratings. Her



FIG. 79.—Door-knocker, with the arms of Henri II and crescent of Diana. From the Château of Anet, now in the Cluny Museum. Circa 1552.

apartments at St. Germain-en-Laye, were secured in the same way by three large locks opened by separate keys, but all readily undone by a key, *qui passe par toutes*, carried by the king. The locks in this château were all changed by Antoine Morisseau directly Henri came to the throne, and we find padlocks in use

there in 1547. Door and window bolts, called *targettes*, locks and door-knockers (Fig. 79), were decorated with the same emblems on *repoussé* plates, or, as in a few examples, they were, etched (Fig. 1); and, if not rivalling the older work, were sufficiently rich. The names of Guillaume Hérard, Gilbert Drouys, Adam Bontemps, Michel Suron, Jean Duchesne, and Jacques Martin of Lyons, have been handed down as smiths receiving important commissions at this period, where, as at Écouen built for the Montmorencys, the door fastenings were particularly cared for (Fig. 78). In the brief reign of Francis II., Philibert Delorme expended 6011 livres with Mathurin Bon, *serrurier*, for his work at Fontainebleau. Precisely the same character of work was maintained, but the Latin mottos, fashionable in his father's court, now gave place to Greek. The *ciseleurs* and damasceners were constituted a *corps de métier*, in 1573, by letters patent of Charles IX., who amused himself at the forge and rivalled any smith or farrier.

Under Henri III, when the king's minions and favourites paraded at their girdle a gilt key, giving entrance to his private apartments, keys began to receive unwonted attention, and exquisite specimens of Renaissance art, finished like the finest jewellery, came into existence. One of these, known as the Strozzi key (Fig. 80), was disposed of some years since for the enormous price of £1200. Like most of the keys admitting to the royal apartments of Henri III, the design of the bow, on which the work is lavished, takes the form of winged chimeras, or sphinxes, addorsed, with masks and entablature, and a ring for suspending it, above. The junction between the bow and the stem is also extremely elaborate, either a Corinthian, Ionic, or Doric cap, or some other well-designed architectural form; the stem itself is formed of two circular concentric pipes, and the bit shredded like the teeth of a very fine comb. The Strozzi key, and three others (Figs. 81, 82), were figured, in 1627, by Mathurin Jousse, who looked on them as marvels of art, and appeared to believe



that they were cast. All four are, doubtless, the original keys which admitted into the king's apartments. Another larger and hardly less beautiful key of the same date, belonging to



FIG. 80.—The Strozzi key, which admitted to the apartments of Henri III. Sixteenth century.

Mr. Currie, has the comb of the bit shortened to make room for a series of elaborate perforations, forming a monogram, believed to be that of Catherine De' Medici. In this key a miniature temple, sheltering a statuette, is introduced between

the Corinthian capital and the bow. In later keys, the pipes are angular, polygonal, or trefoil in section; and, though the bows may be similar, the classic capital to the stem is first debased into a kind of coronet or band, and then disappears (Fig. 83); the bit becomes more wedge-shaped and flanged, its comb is shortened and confined to the flanged extremity, and the rest is solid, with a few extremely thin, rectangularly meandering wards. When there was a Dauphin in France, key bows were often fashioned of two dolphins (Figs. 84, 85). The Louvre contains two well-



FIG. 81.—Key of Henri III, figured by Mathurin Jousse. Sixteenth century.



FIG. 82.—Key of Henri III, figured by Mathurin Jousse. Sixteenth century.

known ecclesiastical keys, with figures of St. Peter and St. Paul in the midst of foliated scrolls, for bows. All, though so generally regarded as Italian, are most assuredly French. Jacques Androuet du Cerceau, who died about 1585, in the reign of Henri III, was the first to publish designs for keys (Figs. 86, 87) for the use of locksmiths. The pipes are round or square, and the bits unflanged, but no keys of these designs are known to exist. A master-smith named Pompeius published some designs or escutcheons, and a key bow, in 1612; and the more cele-

brated Antoine Jacquard, of Poitiers, published others a little later (Fig. 88). In Jousse's treatise, 1625, forty examples of key bows are displayed, and many others were published, almost at the same time, by Didier Torner. The bows in Jousse are generally elliptical and foliated, filled in with knotted ornament or monograms; the pipes are usually round and the bits flanged, the chief novelty being the replacement, in many cases, of the pipe by a solid shank. In Briseville, a work published on precisely similar lines in 1670, only one very plain key appears.



FIG. 83.—Key with triangular barrel. Early seventeenth century.



FIG. 84.—Key with triangular barrel and dolphin bow. Late sixteenth century.

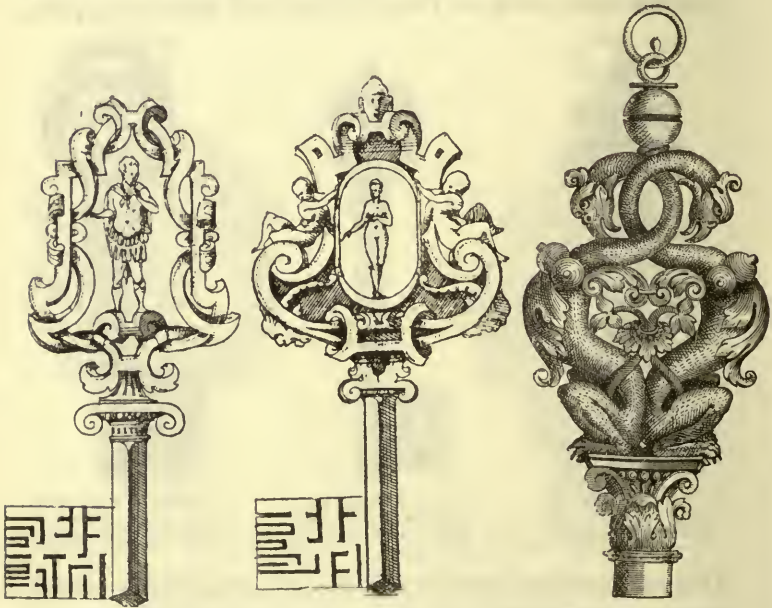


FIG. 85.—Key with dolphin bow. Late sixteenth or early seventeenth century.

This was partly because the lighter and less expensive English keys were already finding their way to France, and partly because cast ormolu bows were in use as a substitute. Of this kind were most of those, composed of graceful branches, garlands, etc., by Marot (Figs. 89, 90), Delobel, and Domenico Cucci, who made the fastenings for the Louvre, Tuileries, and Versailles. In the eighteenth century, some steel keys with interlaced monograms, and anchor, star, and other fancifully shaped wards, were produced, but they were generally imitations of the English, which,

by 1720, had become quite the rage. Very few finely chiselled steel keys were produced in France after that date.

The locks in the seventeenth century were mortised in the wood or fixed to the inside of the door, and the principal decoration was lavished on the escutcheon, while the back of the lock was engraved, etched, or pierced. The published works on locksmithing abound in illustrations, but Jousse was the first writer to describe their construction in detail.



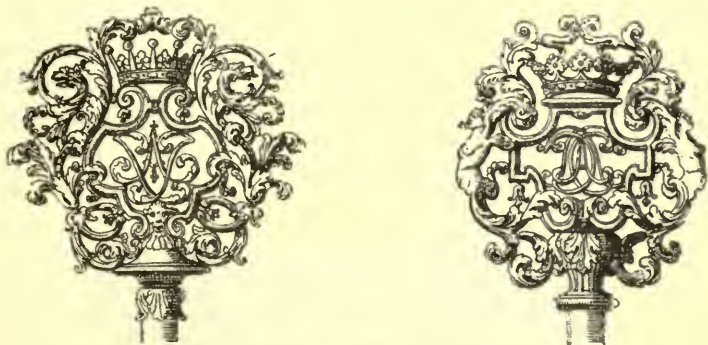
FIGS. 86, 87.—Two keys from the work of Jacques Androuet du Cerceau. Second half of sixteenth century.

FIG. 88.—Key bow by Antoine Jacquard of Poitiers. Early seventeenth century.

The great incentive to the production of elaborate locks was the system which continued in France for nearly four centuries, of setting apprentices, who aspired to become master-workmen, a task which was expected to occupy them a couple of years. The set task was a lock and key called a *chef d'œuvre*, and they were, in the seventeenth century, alternately mortise-locks à *pène*



*dormant* (Fig. 91), or rim-locks *à la moderne*. The mechanism of the former is fully described by Jousse, who illustrates locks shooting up to twelve bolts (*fermetures*) or seven bolts (*pelles*). The ornament on some few which had the fronts exposed is Renaissance in character, consisting chiefly of masks and archi-



FIGS. 89, 90.—Two key bows by Daniel Marot. End of seventeenth century.

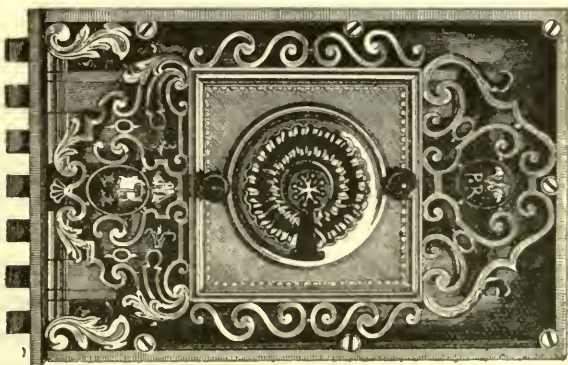


FIG. 91.—*Chef d'œuvre de maîtrise*, a mortise-lock, with pierced plate. Late seventeenth century.

tectural ornament, chiselled from the solid, or pierced and engraved and polished (Fig. 92), no longer *repoussé* as under the Valois. The Museum possesses several specimens of great value, purchased from the Bernal collection, one of which is signed Gaspard J. Mazelin, 1649.

The lock *à la moderne* was, by a strange contradiction, a reproduction of the old traceried Mediæval lock placed on the outside of doors and coffers, which had been in vogue for centuries. It presents the traditional pierced flamboyant tracery, chiselled canopies, pinnacles, figures of saints and especially of the Crucifixion, but in a seventeenth and eighteenth century rendering of Gothic. To effectually conceal the keyhole was a crucial point with the apprentice, and he was not called on to divulge the secret to the master who received the *chef d'œuvre*. The keys were also of Gothic style, and, with their capitals, vases, pyramids, and pilasters pierced *à jour*, took as



FIG. 92.—Rim-lock, pierced and chased, with armorial bearings. Seventeenth century.

long to produce as the locks. The stem gave place to a turret-shaped handle with four, or sometimes eight sides, and a dome of open pierced work, or a moulded top. Between this handle and the pipe was a wheel-like disc filled with open tracery, next a broad moulded table and neck, and then the very short circular pipe and the bit, with perhaps as many as twenty-three thin comb-like teeth, and nineteen small rectangularly pierced wards arranged in two or three symmetric rows. This form of key was the favoured *chef d'œuvre* of aspiring apprentices, and is often associated with locks of purely classic taste.

Locksmithing reached its apogee in France under Louis XIII., who, in 1618, when but seventeen years old, delighted to work

at the bench and forge. In 1628, François Toisonnier was lodged in St. Germain, that he might produce his locks and curious masterpieces free from sordid cares; and in 1639, Rossignol, head of a race of smiths, was installed in the Palace of Fontainebleau as the royal *serrurier*. His Majesty's tastes were already pronounced in 1605, when, as dauphin, he amused himself with letter padlocks, which even then were not entirely new. A small one, set to the word AMOR, was given to Pierre de l'Estoile in 1606, and there is a gilt box partly covered with red

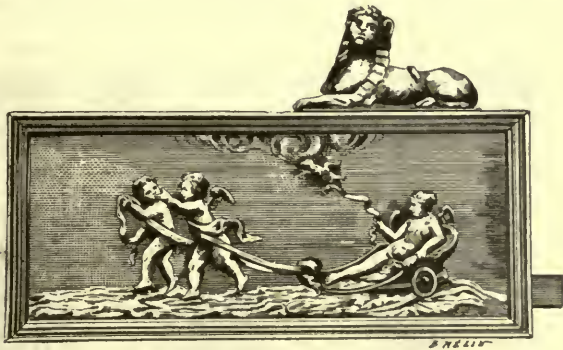


FIG. 93.—Lock in *fonte malléable*. In the South Kensington Museum. Eighteenth century.

velvet in the Louvre, fastened by one of perhaps a slightly earlier date. One was exhibited in the loan collection of 1862, at South Kensington, bearing the motto, "Feere not," and dated 1654; and one opening to the word AMEN is mentioned by Beaumont and Fletcher early in the seventeenth century. In the eighteenth century beautiful iron rim-locks, with cupid and other bas-reliefs (Fig. 93), were produced in *fonte malléable*, a discovery of Réaumur's, who published "L'art d'adoucir la fonte," in 1722. Royal manufactories to produce all kinds of objects by this process were started soon after, in 1727, but were not successful. The business of publishing designs for lock-furniture and escutcheons, or *entrées de serrures*, was continued throughout the reign of Louis XIII., and we find, besides those already mentioned and

several series of plates only signed by initials, works by Nicolas Jardin, Aubert Lorient, and Mathurin Berton, none of which, unfortunately, are to be found in our public libraries.

Knockers are akin to locks, and we find that, though somewhat out of fashion in the earlier years of the seventeenth century, they are still richly worked. They are either stirrup-shaped, with masks and heads, or of the beautiful pearl-drop-like form, with rich foliated mount, depending from a rosette or lion's head, invented by J. Androuet du Cerceau (Fig. 94). When these are reduced, to serve as handles to cabinets, they are quite gem-like.

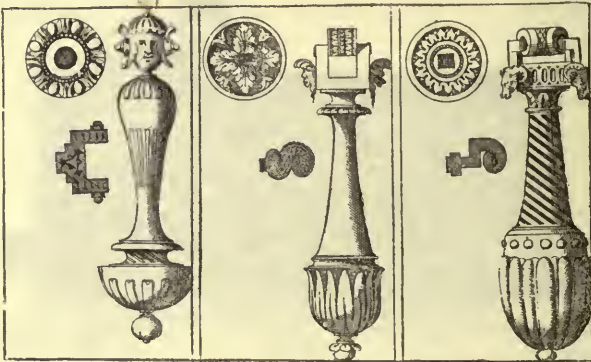


FIG. 94.—Door-knockers designed by Jacques Androuet du Cerceau. Second half of sixteenth century.

The numerous designs for knockers with the hammers fashioned of grotesque figures, which he published, were either never carried out or are lost, like some carved and S-shaped hammers abounding in organic details in Jousse. Still, designs for knockers are extraordinarily varied, and even fantastic, down to Louis XIII., when an embossed plate, with heavy moulded stirrup-shaped hammer, became the regulation form. They were much the same under Louis XIV. and Louis XV., but the plates were merely pierced, and reached a large size and high degree of elaboration.

Quitting the subject of locksmithing, we find the richest and most delicate work of which iron is capable bestowed on objects



to be carried on the person. Of these, the most important were the mounts of the purses, called *escarcelles*, worn at the lady's girdle, which might be laid on the deceased husband's tomb, if the widow wished to be free of his debts and inheritance. The masks and lions' heads, and the damascening with which they are generally embellished, often signify a French origin, whilst others are Spanish and Italian. On *étuis*, *drageoirs*, buckles, whip-handles, and other trifles, even more minute work was lavished, and iron in these cases scarcely yielded to gold in costliness. The beautiful steel mirrors, the indispensable companion of the wealthy of either sex, and of royalty, down to the seventeenth century, were objects of most careful workmanship guarded in leather or velvet cases. When glass mirrors were generally introduced, steel was still admitted for the frames. A superb, late sixteenth-century example, with the crest of a rampant goat, in the midst of most intricate foliage, and surmounted by the coronet of a French Marquis, is well known to every art collector. *Appliqués*, or wall lights, owed much to the high polish and reflecting power of their iron back-plates. The female figure holding up two branches in the Museum is a fine seventeenth-century example. Steel lustres are first mentioned as being furnished for Plessis by Pierre Cormier, smith to Louis XI. The magnificent specimen in polished iron of the Hôtel Cluny, made for Louis XIII. or Louis XIV., is recognized as one of the gems of art. The chased steel flambeaux of the Sauvageot collection in the Louvre show the excellence attained by French artists in the sixteenth century. The few iron lanterns of the Henri IV and Louis XIII. periods (Fig. 95) also deserve special attention. A gilt one, with *fleur-de-lis* and surmounted by a tuft of vine and wheat, in the Rouen Museum, and one in polished iron in the hôtel of M. le Comte de Vogué, at Dijon (Fig. 96), have been repeatedly illustrated. The magnificent chandelier (Fig. 97) of polished iron in the Hôtel Cluny, made, probably, in the first half of the seventeenth century, before the accession of Louis XIV., is also of the greatest interest.

Good authentic specimens of all these objects are sufficiently rare, but we read that iron was used in France for other purposes, of which apparently no specimens at all have come down to us. The Duke of Bourbonnais had in 1507 an iron chair covered with velvet; and there was one in the Château of Condé in 1569.

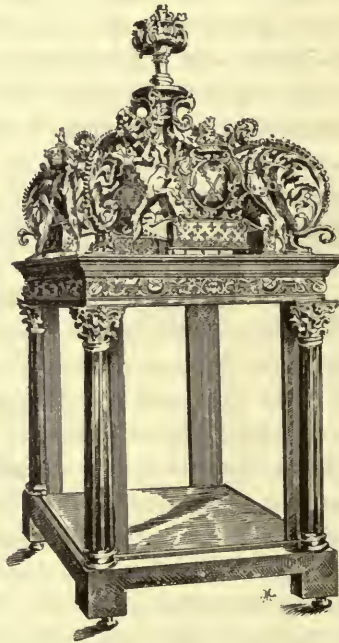


FIG. 95.—Chased and polished iron lantern. Seventeenth century.

Amédée de Chalamont possessed an iron bench to sit down on in 1571, and Cardinal Amboise had a table and two brackets of iron in 1550. The Abbé d'Effiat possessed a screen of blue velvet on a gilt-iron support. The elaborate *Gaufre* and *Oublie* irons are good specimens of die-sinking, when nothing seemed too trifling to decorate.

The effect of much of this highly finished work was increased by damascening, that is, by beating gold or silver wire into lines,

cut into iron or steel, which was afterwards polished and blued.

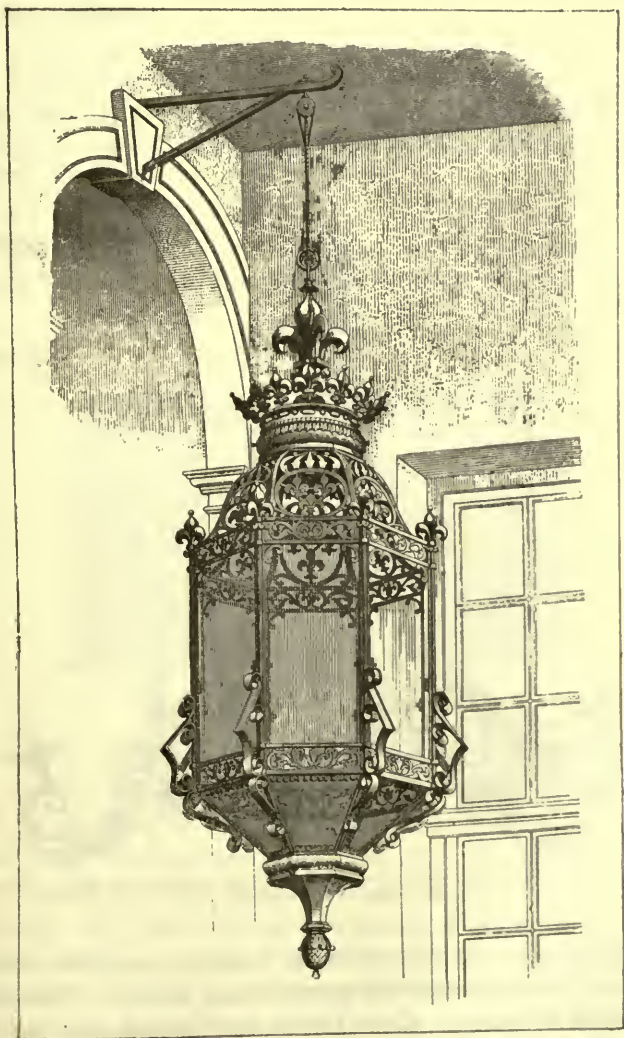


FIG. 96.—Lantern in the Hôtel de Vogué, Dijon. First half of seventeenth century.

This process was introduced into France from Italy some time

prior to 1550, when a large number of designs for damasceners were produced by Jean de Gourmont and a master who signed I. R. Like those by the famous Étienne Delaune, they are most exquisite. In 1573, the chasers and damasceners, as we have seen, were incorporated with the cutlers; but the *fourbisseurs* and *armuriers* of Paris also made considerable use of



FIG. 97.—Chandelier with six branches in polished iron, with the royal arms. In the Cluny Museum. Seventeenth century.

the process in the decoration of weapons, especially under Henri IV, when damascened armour was in fashion. The most renowned damascener of the period was Cursinet, who died in the middle of the seventeenth century. The mirror frame of the Monbrison collection, inscribed with a sonnet by Ronsard,



composed soon after 1510, is one of the most sumptuous productions known.

A medallion, with the portraits of Henri II and Catherine in *repoussé* and damascened iron, is in the Museum. Many exquisite coffer (Fig. 98) and plaques for furniture in the same work still exist, and the splendid Renaissance clock in damascened iron, figured by Lacroix, in his "Arts of the Middle Ages," is also apparently a French production. A fine statuette of Louis XV. in damascened iron is also known. Small boxes, watches, and all kinds of trifles were damascened

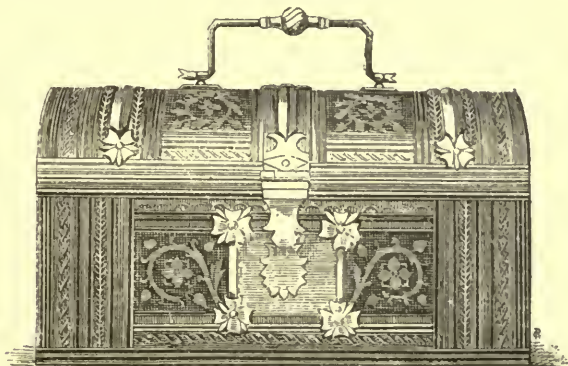


FIG. 98.—Small iron casket, damascened with silver and copper. Sixteenth century.

in France down to the reign of Louis XVI., and designs for the use of damasceners continued to be occasionally published.

It is surprising to find that while such magnificent ironwork was being produced in France, her vain, but gallant, nobles were almost dependent on foreigners for the armour they proudly donned. The history of the production of armour in France, or, indeed, in any country, has yet to be written; few materials for it exist, and the task of collecting them is most laborious. There is reason to suppose that from Roman times, when armour and weapons of high quality were produced at Bibracte under the eyes of specially appointed Roman officers, until

the close of the Mediæval period, France produced her own armour. The French who followed Norman William wore armour superior to the English, and we learn that under Philip Augustus it was made at Chambly, as well as at Bordeaux and Paris. Horse-armour was introduced by the French, and not wholly abandoned by them till quite 1550. Richard I. saw it for the first time in the French wars, and considered the capture of a quantity of it a matter of importance. German swords, however, were used by both Philip Augustus and St. Louis, but swords of Toulouse are mentioned in the inventory of his son Louis X. Bordeaux steel is continually mentioned by Froissart. Thus the English men-at-arms and the Lisboners were armed with well-steeled Bordeaux lances with which they pierced through everything; and at the fight on the river Lys, the French received the Flemings on the sharp points of their Bordeaux spears, to which the Flemish coats of mail made no more resistance than if they had been cloth. Sir Robert Salle drew a handsome Bordeaux sword to fight Wat Tyler's rabble, and Sir Peter de Béarn drew a Bordeaux sword to slay the bear. Hauberks, helmets and shields, as well as swords and lances of Poitou were renowned, and at this time the barbed horses, and the knights and squires, richly armed and equipped for war, with banners and pennons flying, are spoken of by chroniclers as presenting a magnificent sight. Limoges furnished the steel.

Froissart's account of the famous battle of Rosebecque, fought in 1382, where the hammering on the helmets of the combatants made a noise that could not have been exceeded if all the armourers of Paris and Brussels had been there working at their trade, shows that these capitals were still great centres for the production of armour; and the figure of St. George, patron of armourers, cased, horse and rider, in steel, in the Church of St. Jacques de la Boucherie, was no doubt set up as a sample of what the Parisians could do. The Duke of

Burgundy kept armourers at Dijon, and he had the greater part of his armour forged in his castle of Hesdin when he was preparing to meet the challenge sent by Gloucester.

Armour had always been the chief spoil of battle, next to gold and silver plate, and the wager by Sir John de Cornewall, related by Monstrelet, of his steel helmet, which he offered to prove to be worth five hundred nobles, shows that by the beginning of the fifteenth century, a knight's armour was of considerable value. From the time of the Crusades, at least, gilt and jewelled helmets and gold-hilted swords were used by the great, and, though even a king's armour might be plain polished steel for war, on occasions of pomp it was loaded with silversmith's work and jewels. Thus a most precious sword of Henry V., ornamented with diamonds, was presented to the Count of Charolois, and Dunois was girt with a sword set with pearls, diamonds, and rubies of the value of fifteen thousand crowns, on entering Rouen. The Count of Foix entered Bayonne on a horse whose head-piece of steel, set with jewels, was estimated to be worth fifteen thousand crowns, and on leaving Rouen the Count of St. Pol's horse had a head-piece blazing with thirty thousand francs' worth of jewels, while his men-at-arms were accompanied each by two mounted archers in greaves, brigandines, and salades, for the most part ornamented with silver. Magnificence culminated in the person of the Duke of Burgundy, who accompanied the plainly dressed Louis XI. into Paris, in armour, valued for horse and man at a million crowns, followed by nine richly clad pages bearing light but superb helmets, one of which was worth a second million crowns. From this arrogant and measureless display the king's implacable hatred must be dated.

We hear of the occasional importation of Italian armour in the reign of Charles VII. ; but his son, Louis XI., and his peers not only introduced it freely but even brought Italian armourers into France. Thenceforward the production of the defensive armour of western Europe passed almost exclusively into the hands of

Italians and Germans, and soon afterwards, at the close of the Maximilian period, the fashion of armour affords little indication as to where it was made. The richly embossed, engraved, etched, or damascened suits, which became the fashion in the sixteenth century, are of the greatest importance in the art history of ironworking, and, as already remarked, their production was practically monopolized by Italy and Germany. Hardly one of the grandly decorated suits in the magnificent collections of Paris and Madrid can be claimed as of Spanish or French workmanship, nor can we be sure of an indisputably English ornamental suit in the Tower. The finest suits have been one after another identified as German or Italian. It is now known that the vast bulk of the armour used in France, Spain, and England later than the accession of Charles V., was supplied by Italy, though many of the exceptionally sumptuous suits made for royal and grand personages were German. The designs for several of these have been recovered, but in other cases it is not so easy to pronounce upon them, especially as large numbers of German armourers worked in Italy, and the designers on both sides the Alps followed much the same lines. Where, however, masks, figures, and animals form part of the grotesques or arabesques, Italian work can be recognized by the seriously conscious attitudes and solemn expressions devoid of interest. The overstraining after the sublime resulted in a meaningless gravity, by which the ornament of all but the earlier and more powerful Italian masters is unhappily distinguished. German arabesques or grotesques, although of precisely the same richness of motive and line, always present some lurking humour of expression or quaint attitude to provoke attention or a smile. The good cheer and fellowship of the old German burgher life permeates the design on the one side of the Alps, and on the other, the touchy braggadocio of a people who were losing at once their artistic powers and their liberty.

The problem why the French, who were unsurpassed in the



artistic manipulation of iron at this period, should have left such a large and presumably lucrative field to their rivals and enemies across the Rhine and the Alps appears insoluble. The few pieces of Renaissance armour decorated with arabesques, attributed to Frenchmen like Cousin, are endowed with an elegant, almost poetic, grace in the figures and expressions, and a *gentillesse* in accord with the vain, restless, chivalrous genius of the people. The damasceners Roquelin and Dehoux are supposed to have worked armour for the king about 1561, and Cursinet, armourer to Henri IV, was renowned all over Europe, and died about 1650. Antoine Jacquard, of Bordeaux, and the Drouarts, installed in the Louvre, made weapons and executed damascening, but it is doubtful whether they produced armour. Brantôme expressly states that Milanese corselets and morions were in the greatest vogue in the French court, and that the French could neither produce them so light nor in the same perfection. Offensive weapons of superior workmanship, on the other hand, were always to some extent manufactured in France. Engravings of the superb sword-handles of Pierre Woeriot,—a Lorrainer, born circa 1532, and settled in Lyons,—with others, of about 1615, by Antoine Jacquard, are in the Slade collection of the British Museum. They were evidently carved from the solid, a method known in Italy as “the French manner.” Jean, Vincent, Henri and Guillaume Petit were famous sword-cutlers. Pierre Vernier, a *forger d'épées*, the *frères* Marbreaux, Jumeau, Juste and Legre were installed in the Louvre, 1608, as *couteliers, arquebusiers, or damasquineurs*; and the names of a few others, as Philippe de Salles and Maupetit, are found on sword-blades. From the time, however, that the German Reiters, or pistoliers, came prominently on the scene, special attention was given in France to the manufacture of firearms. A body of French cavalry was armed with wheel-locks in the reign of François I. to oppose the Reiters, and history shows that the pistol and harquebus became at this time the most deadly weapons of war,

and left little to the sword or pike. Brantôme relates that he actually saw Charles IX. forging musket-barrels with his own hands, and the indefatigable J. Androuet du Cerceau did not disdain to design the locks. It was the custom to sign the locks with much flourish and ornament, and impressions from the engravings, in the South Kensington Museum, preserve names of many gunsmiths. The rare engravings by Jacquinet of the designs of Thuraîne and le Hollandois, "*arquebusiers ordinaires de sa Majesté*," published in Paris, 1660, and accessible to all through Quaritch's valuable reproduction, furnish the names of twenty-four makers or vendors of guns in Paris. Under Louis XIII., were published: a volume entitled "*Arquebuserie*," by Antoine Jacquard, 1615; twelve plates signed H. P.; a series of fourteen others by Daubigny, dated 1635 to 1637; and six by Hennequin of Metz (Fig. 99). Similar publications of designs for "*Arquebuserie*" were continued in France under Louis XIV. Besides the work already noticed, Jacquinet engraved, in 1657, a volume of eighteen plates for François Marcou, a *maître arquebusier* of Paris; and shortly afterwards ten plates of designs were produced by the celebrated Jean Bérain. Nicolas Guérard, an artist and engraver, also published a series of designs; and Simonin engraved on twelve plates the works of Laurent le Languedoc, a noted gunsmith of Paris, in 1684; while De la Feuille, a French arquebusier settled in Amsterdam, issued a series in 1692. Even under Louis XV., Claude Gillot, a painter, designed six plates of new designs for *arquebusiers*; and De la Collombe and de Marteau, two engravers, followed suit. The publication of a German work with a French title, by Jacob Sandrart, of Frankfort and Nuremberg, seems to concede that the French had made this art their own.

On the other hand, the French do not appear to have been distinguished in the production of artillery, though as early as Charles VIII. their field and siege trains were most efficient; but the iron guns themselves, even when cast, seem to have been

chiefly produced in Belgium. Sully, however, as master of the ordnance in 1600, speaks of treating with the masters of the great ironworks in France for carriages and bombs, but with foreign merchants for the metal.

The Italian buildings of the Valois required little decorative



FIG. 99.—Part of an arquebus, by Hennequin of Metz. First half of seventeenth century.

blacksmith's work, as distinct from the locksmith's work already described, and no Italian smiths were imported. The French smiths, imbued with Mediæval traditions, adapted their work but slowly to the new style. When a round arch at Écouen required a grating, under Henri II, 1547-59, nothing better could be devised than awkwardly arranged ovals and squares filled with

the ubiquitous H.D. and crescents ; and the cross on the chapel is modified Gothic embracing the same ciphers. We look in vain for indications of iron balconies, gratings, or stair-ramps, in the designs of Pierre Lescot or Philibert de l'Orme, and it seems



FIG. 100.—*Landiers* : finishing with brass balls, sixteenth century ; and in a crook, fifteenth century. In the South Kensington Museum.

clear that, until Louis XIII., the blacksmith found little patronage from the architect.

But if unemployed in architecture, he was in request for the *ménage*, which required from him during the fifteenth and sixteenth centuries objects as numerous as they were decorative. Chief



was the fire-dog, as necessary to the royal palace as to the humble fireside. The earliest forms, going back to the fourteenth century, were plain, and either finished in crooks to take the spit, *à crosse*, or in balls (Fig. 100). We read, however, that Charles V. of France possessed, as early as 1380, a most elaborate

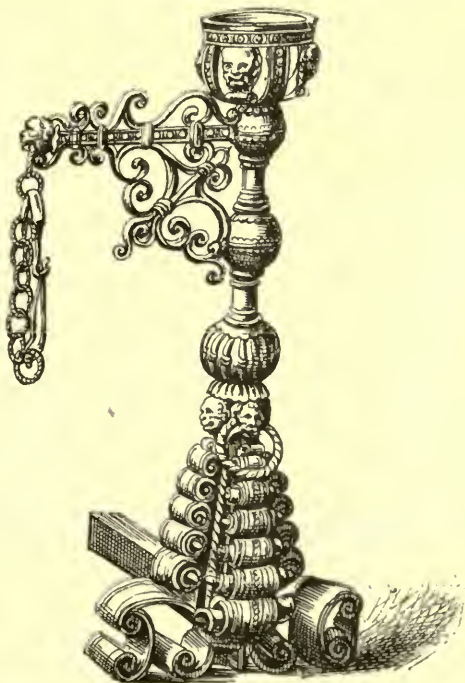


FIG. 101.—*Landier à chaufferette* of the time of François I. In the South Kensington Museum. Middle sixteenth century.

pair in iron, *ouvrez à fenestragés et à bestes*, and they are often set down in inventories as weighing 50 or 60 lbs. each at that date.

They were classed as *chenets*, or *chiens-de-fer*, if low; and when more majestic, as *landiers*, or *andiers*, perhaps from the same root as andiron. These names were, however, applied indiscriminately towards the sixteenth century, until *chenet* prevailing

in fashionable society, the term *landier* became obsolete. The kitchen dog, provided with hooks, etc., for spits, and cressets for saucepans, was the *hâtier*; while the *contre-hâtier* was a larger *hâtier* with places for several spits, and often two or more cressets and other apparatus. Much art was sometimes lavished on these. The Museum possesses three superb sixteenth-century specimens, consisting each of a pair of huge andirons united by a foot-bar, surmounted by cressets, and provided with swivel-brackets and other handy appliances (Fig. 101). Two of these could hardly be surpassed in richness, the broadly modelled, massive,

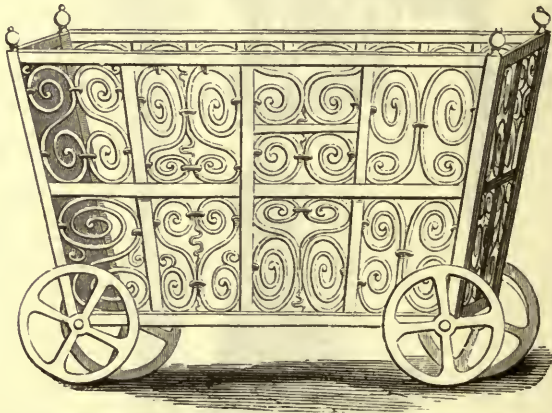


FIG. 102.—*Escarfaille*, or portable brazier, probably Spanish. Sixteenth century.

ribbon-like treatment being particularly effective, while the details are elaborate with masks and ornamented bosses. A pair in Paris, similarly decorated, and dated 1541, bears the royal crown of Francis I. and a couple of candle-holders. *Chenets à rouelles*, or dogs surmounted by small cressets, used as *réchauds*, or chafing-dishes, were admitted at this time into cabinets and parlours, and our elaborate specimens could scarcely be intended to be seen only by cooks and serving-men. They, probably, in part superseded the domestic brazier of preceding centuries, which was in disuse until re-introduced from Spain by Anne of Austria.

Some chafing-dishes on tripods, and iron cradles on wheels (Fig. 102), are to be found in collections. More portable forms for warming the hands and feet, and others more resembling portable blacksmiths' forges, still exist in cathedrals, as Rouen, Noyon, and Beauvais. Cast-iron dogs, *andiers*, appear in the fifteenth century, and, as far back as 1472, the king's suite of rooms at Angers



FIG. 103.—Cast-iron fire-dog. In the Cluny Museum. Fifteenth century.

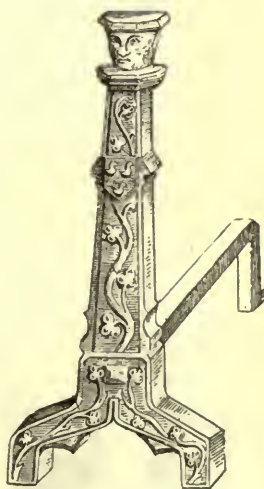


FIG. 104.—Cast-iron fire-dog. In the Cluny Museum. Fifteenth century.

was furnished with them. Many are well and richly modelled (Figs. 103-106), while others are almost shapeless lumps of iron. For the most part the designs are Mediæval and admirable, while others represent classic satyrs, terms, or figures. Cast fire-backs, at first called *bretagnes*, or *contre-feux*, and now *contre-cœurs*, followed later. One decorated with Hercules was produced for the Queen's room at St. Germain, in 1548, and others were made in 1559 by Nicolas Clerget, of St. Dizier, for the

Louvre. They usually bore coats-of-arms (Fig. 107), ciphers (Fig. 108), or emblems, and large numbers condemned to destruction, on this account, in 1793, were fortunately preserved by the simple expedient of turning their faces to the wall. Fire-guards were scarcely known in France until the seventeenth century—the oft-figured fragment of a twelfth-century church-screen, converted into a fire-screen by Didron, notwithstanding.



FIG. 105.—Cast-iron fire-dog. In the Cluny Museum. Fifteenth century.



FIG. 106.—Cast-iron fire-dog. In the Cluny Museum. Fifteenth century.

Cast brass and bronze embellished fire-dogs in the seventeenth century, when wrought-iron stems were frequently surmounted by brass knobs. This led up to the bronze dogs of the seventeenth and eighteenth centuries. Androuet du Cerceau introduced a number of new forms, especially the obelisk. Two superb pairs of beaten iron, gilt, in this form, are preserved at Loseley. The



makers and gilders of iron and steel dogs lived at this time in Paris, in the Rue Dauphine and Rue de la Verrerie.

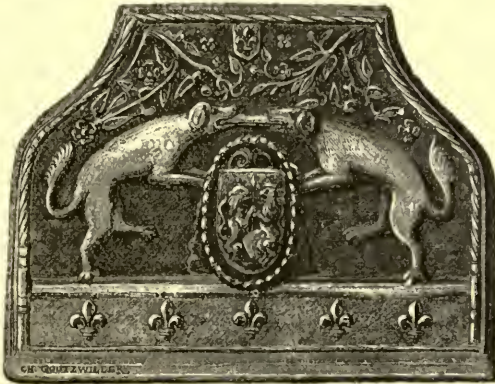


FIG. 107.—Cast fire-back. In the Cluny Museum. Sixteenth century.



FIG. 108.—Cast fire-back, from the Château of Villeroi, of the time of Louis XIII. In the Cluny Museum. First half of the seventeenth century.

Returning to the kitchen, in the chimney was suspended the *crémaillère*—a word spelt in a variety of ways—an elaborate pot-

hanger, consisting generally of a large trident embellished with much scroll-work, with its prongs downward, regularly toothed, and ending in hooks to receive the cauldrons and kettles. Various utensils, as the *méchinette*, the *louche*, the *poêle*, and the *gril* or *grail*—the latter, the gridiron, lending itself to sumptuous scrolling,—were suspended or supported from it. Placed at hand were the hook and *tenailles* to manipulate the logs, and later the *pelle*, or shovel, and more delicate *pinçettes* of the seventeenth century, and the little iron lamps filled with oil or grease, known as *craissets*,\* *graissets*, or *crastiers*. Finally, there hung from the ceiling the



FIG. 109.—Large iron flask (*cantine de guerre*). In the South Kensington Museum. Seventeenth or eighteenth century.

*couronne d'office*, a circle of iron with hooks to receive meat and game, frequently wrought into a highly decorative and picturesque object. The old forms of many of these culinary necessities have continued in use in Brittany and remote districts almost to the present time. The uses, to which the large iron flasks, of which the Museum has a good example (Fig. 109), were put, are imperfectly known, but it is recorded that the king always kept one in his night chamber.

The most ambitious efforts of the smith, by far, were the well-

\* In Scotland "crusie," an obvious derivation.

cranes, of monumental size, which formed a sort of baldachino over the well-heads. They are more abundant in France than elsewhere, notwithstanding that nearly all those situated in public places and thoroughfares have been removed. None, however, rival the well-known Antwerp example, the earliest, and, outside Germany, the richest extant. Of those remaining, the Gothic examples display masterly simplicity. The fine specimen in the courtyard of the Hôtel Cluny is familiar to many, and others may be cited at Dijon, Beaune, Marcoussis, Hennebont, Nantes, Troyes, etc. Those of the Renaissance, like the Toulouse examples, are somewhat richer, and extremely well forged, but later examples are poor, as if wells had become of less importance. Jousse, in his treatise, 1625, presents four indifferent designs; but worse were made, as may be seen in the Picardy Museum. In the right situations, they might still form most pleasing and inexpensive monuments. The bells of St. Just, at Narbonne, are hung from a similar construction. Androuet du Cerceau shows us that in 1560 shop and tavern signs were sometimes suspended from wrought-iron brackets; but they were never so remarkable as in Germany or Flanders. A few hinges, finials, wall-anchors, and reticulated screens also preserved some Gothic traditions.

A grim use of iron was that of Louis XI., who kept three forges at work at Plessis, where were made the cages of iron, or of wood covered with iron plates, and with terrible locks, in one of which the Bishop of Verdun was shut up for fourteen years. The story goes that he invented them; but they had long been used in Italy, and were no doubt derived from the far east. Perhaps the bishop, or rather cardinal,—like Philip de Commines, who was caged by Charles VIII.,—had been active in introducing them to the king's notice. His cage is still to be seen at Loches, and a drawing made in 1699 of it, or, of another one, exists in the National Library, Paris. Evelyn was shown, at Bourges, the cage in which the Duke of Orleans was imprisoned by Charles VIII.

## VI.

### THE BAROQUE AND ROCOCO PERIODS IN FRANCE, AND THEIR INFLUENCE.

TURNING to architecture, though the fortress château glittered with gilt and painted *girouettes* or vanes, and bristled with a forest of fantastically heraldic pennon- or banneret-like finials, which rose from its turrets, together with the crowns and coronets so much *à la mode* and denoting the owner's rank ; yet, at the close of the fifteenth century, small scope was afforded for the display of the blacksmith's art. It is only as the defensive features are relinquished that decorative ironwork finds a place. The finial, after being of lead, faïence, and even enamelled copper by no less a hand than Jean Limousin's, gradually disappears, and those made by Jean Rossignol, for Fontainebleau, in 1639, are about the latest of artistic merit, though references such as Molière's "La tête d'une femme est comme la girouette," have continued to be made even to our own time. The Château of Amboise seems to possess one of the earliest iron balcony railings ; the design is very plain, merely of upright bars, with lozenge-shaped panels sparingly introduced. The celebrated park railing of Louis XI. at Plessis, described by De Commines as "of great bars of iron in form of a grating, without the walls, on the further side of the ditch," was purely defensive, like the spiked-iron cresting to the walls and the plate-iron crows' nests, which cost, he says, over 20,000 francs. A still existing railing of this date, by the Mausoleum of Philibert-le-Beau, at Brou, is like contemporary



English work, of plain vertical bars, with a small, pierced border of knots and initial letters.

It was only with the dawn of the *Baroque* that the foliated balustrades and railings, full of curves and scrolls and rich designs, made their first appearance. The Italian influence had long since waned in France, but with the arrival of Rubens a new impulse was given to its art. Rubens had perhaps personally little hand in forming the new school of design in ironwork, but his powerful influence on the arts created it, and inaugurated the freedom and splendour which characterized French art for upwards of a century. Stray examples, like the screens to the side chapels of Notre Dame, and another in Noyon Cathedral, show perhaps at an even earlier date that a change was on its way, but they were isolated, and had but slight influence. It is possible that a few examples of the new style may date back to the last years of Henri IV, but its appearance practically coincides with the accession of Louis XIII., in 1610. It developed fully in this reign, and became so firmly established that, apart from modifications due to changes of fashion, it may be said to have lasted with unbroken continuity until the monarchy itself ceased to exist. The superb staircases of the Palais Royal and the Bibliothèque by Antoine Lemaître, and the rich balustrade, chased and gilt, of the *Escalier du Roi* at Fontainebleau, leading to the *Galerie d'Henri II*, are among the most beautiful and widely known examples. The rails of the statue of Henri IV., on the Pont Neuf, ordered by Richelieu, about 1640, were lofty and of plain bars with a rich cresting. Evelyn describes them as a "strong and beautiful grate of iron;" and observes, in 1649, that "the yron gates are very magnificent" in the gardens of the Château of Maisons. The screens to the Chapel of St. Eustache, in Rouen Cathedral, the remarkable grate-work about the Château of Wideville, and the gates and railings of the Parc de Carrouges, are well-known illustrations of the style of Louis XIII. Fine examples exist at Fontainebleau, as the lyre-shaped balustrade

and gates of the Porte Dauphine, produced by Achille Poyart, of Paris, in 1640, at a cost of 2569 livres, and the gates of the vestibule under the *escalier du fer à cheval*, made in 1634.



FIG. 110.—Sign-bracket, style of Louis XIII. Seventeenth century.

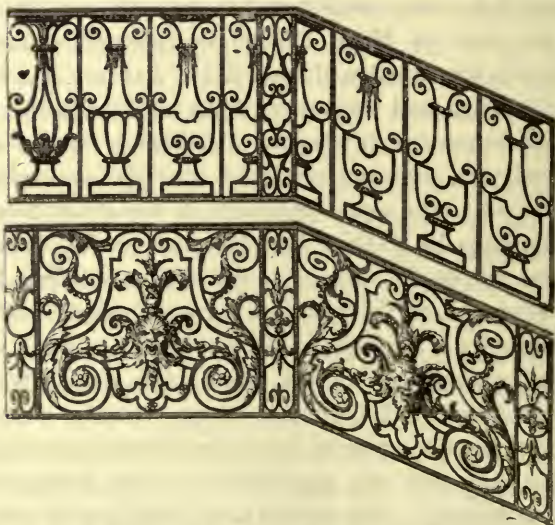


FIG. 111.—Stair-rail designs by Daniel Marot. Late seventeenth century.

Innumerable specimens may still be recognized in the older parts of Paris and Versailles, and some other of the wealthy towns of France.

The oldest-published designs of *Rampes et balcons* in the Louis XIII. style, are four plates by Pierre Gaudin, signed P. G., and issued about 1615. In 1625, Jousse figured several sign-brackets; and somewhat later, an engraver, I. de Mortin, produced

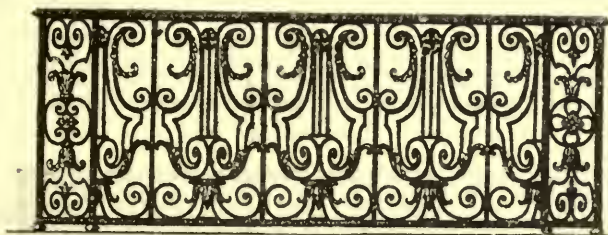


FIG. 112.—Balcony-rail by Daniel Marot. Late seventeenth century.

illustrations of many of the gates and balconies and panels executed for the Palace of Versailles. It is not easy to define the characteristics of Louis XIII. ironwork, except that it is cut up into panels, and that its scroll-work is simple, with curves less

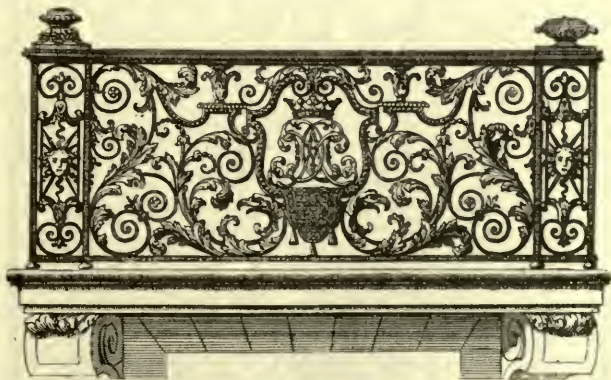


FIG. 113.—Balcony-rail by Daniel Marot. Late seventeenth century.

frequently broken or reversed than under Louis XIV. Designs depend largely on repeats of the scrolls; collars are much used, leaves sparingly, and generally small, sheathing, slightly crinkled and in pairs, often with the stems beaded. If larger leaves



are introduced, they are rather crudely modelled acanthus, with



FIG. 114.—Balcony-rail by Daniel Marot. Late seventeenth century.

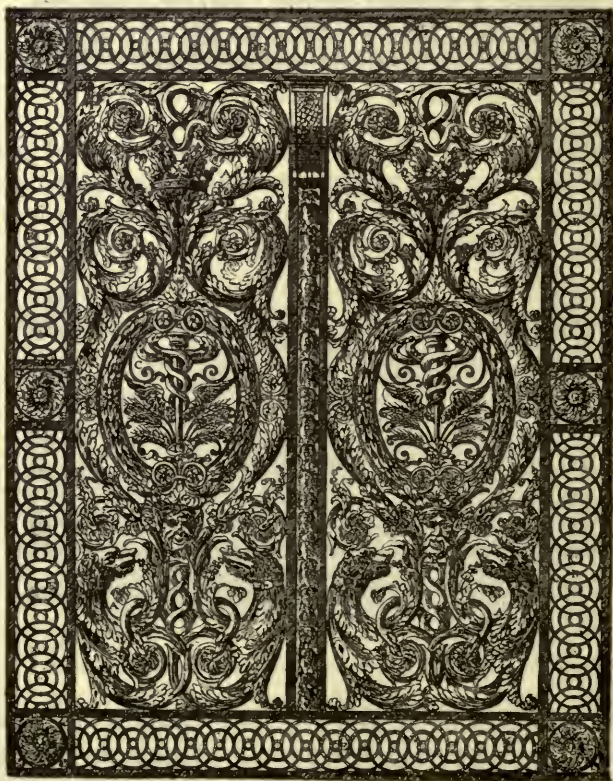


FIG. 115.—Engraving published by Jean Marot of the screen to the Château of Maisons, produced in 1658.



blunt, unsophisticated lobes; palm-leaves are not rare; the rosettes are tame; and large *fleur-de-lis* are frequently combined in the designs. The passage to the style of Louis XIV. is imperceptible, the changes being simply due to increased skill and ability, progress being made towards richness and more developed and orderly design. As the young king expanded into the "Grand Monarque," towards 1660, the field for the smith's art rapidly widened. Royal and noble palaces were approached through spacious courtyards surrounded by iron railings with magnificent gates: while the gardens, parks, and avenues by which they

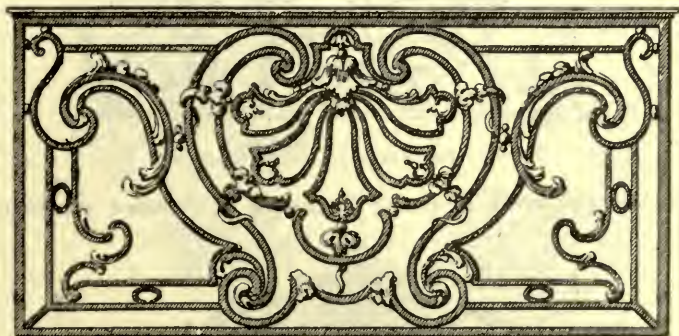


FIG. 116.—Balcony from Lepautre's Architecture. Seventeenth century.

were environed demanded elaborate iron fences, gates and wickets. Staircases were enlarged into grand architectural features of palatial dimensions, and, occupying central positions, required iron balustrades of the most sumptuous possible character. The smiths, thus stimulated, naturally vied with each other in the magnificence of their work and the difficulties introduced into its execution, while the greatest architects, supplying the designs, entered the arena of rivalry. The great J. Hardouin Mansart designed the screen for the Château of Clagny, erected in 1678, and that for Meudon; Girard that for St. Cloud, in 1680; and Gittard that for the Château of St. Maur. Men of such immense influence as Jean Lepautre (Fig. 116), Jean and

Daniel Marot (Figs. 112-114), Jean Bérain, Jean Le Blond, and



FIG. 117.—Part of balcony. Seventeenth century.

Langlois, published *Livres de Serrurerie*, or included numerous



FIG. 118.—A grille from Fordrin's *Serrurerie*. About 1723.

designs for smiths in their works on ornament. Lesser men, like Pierretz *le jeune*, Aviler, Poilly, Nicolas Guérard, Poulleau,

and Jean Mariette, followed suit; while among the smiths who published pattern-books illustrating their own work in this reign, are Michel Hasté, Pierre Gautier, of Marseilles, G. Vallée, Robert Davesnes, Gilles de Bellin, sen., Louis Fordrin (Figs. 118, 119), and Jacques Fontaine. These publishers among the craftsmen were, as in all times, by no means the best workers. The most important commissions were those given by the king for Versailles, which amounted, between 1664 and 1680, to over a million livres,



FIG. 119.—Bracket by L. Fordrin. About 1723.

an amount which led to the disgrace, and thus, indirectly, to the death of Colbert. Of these works the smiths Godignon and Dezeutres, called *Picard*, executed the great screen to the court of honour, and Luchet the gates, at a cost of 32,500 livres; Simon Delobel the doors to the *Escalier du Roi*, and numerous balconies; and Caffieri and Lespagnandel the stair-rail. Boudin, Baron, Fordrin, sen., Legrand, Potelet, and Godignon also worked about the Palace and the Trianon. Poryart and

Rossignol were occupied at Fontainebleau; Lemaître at the Palais Royal and the Bibliothèque; Furet on the Observatoire staircase; Gasté and Gabriel Luchet worked for the Château of

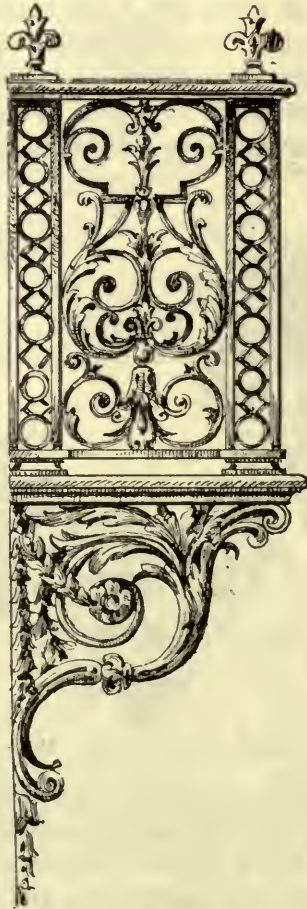


FIG. 120.—Balcony-rail of Louis XIV. Early eighteenth century.

Clagny. Wooden handrails to staircases, usually of mahogany, were first introduced in this reign. The choir enclosures, which became so conspicuous a feature in the great cathedrals under



Louis XV., began to be introduced in this reign, the smiths Mouchy and Mathérion having fixed one in the Val de Grâce as early as in 1666. The most magnificent specimens of ironwork in France, and probably in the world, the superb doors now used to close some of the galleries of the Louvre, were brought from Maisons, and are by an unknown hand. Though of large size

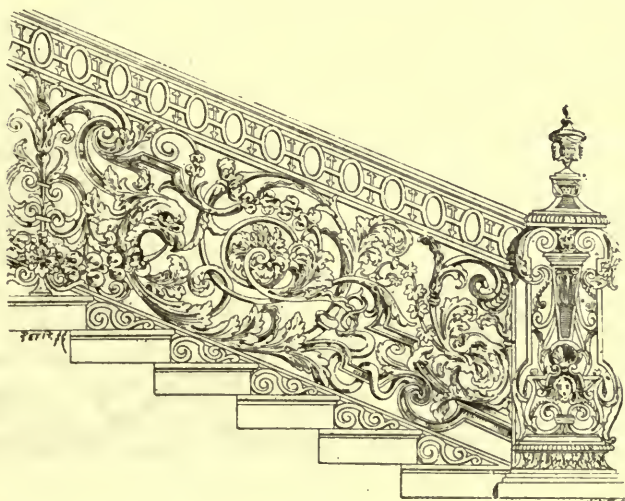


FIG. 121.—Stair-balustrade and newel. Eighteenth century.

they have been exquisitely chased and polished. The château was completed by Mansart in 1658, but an old engraving (Fig. 115) shows that Jean Marot either designed, or made a model for them. Fine Louis XIV. ironwork is to be seen at Marly, Fontainebleau, St. Cloud, St. Germain, Chantilly, Choisy, Meudon, Sceaux, and Vaux-le-Vicomte. A fragment of a late Louis XIV. balcony is shown in Fig. 117, and other examples in Figs. 120 and 121.

The style, in a reign lasting from 1643 to 1715, necessarily varied considerably; but it was mostly rich and costly, full of nobility and grandeur, and executed by a generation of smiths

lavishly patronized, and filled with emulation and pride of craft. The best designs are by the best architects, and the work executed for the king is, with few exceptions, unsurpassed. In the first years of his reign, it was relatively simple, like that of Louis XIII., but later it assumed a massive dignity with more flowing lines, and finally acquired the more mannered and fantastic character so distinctive of the succeeding age.

The grandly rich work of Louis XIV., in fact, developed insensibly into the *Rocaille*, or Rococo, of Louis XV. The capricious curves, and the absence of repose and symmetry in detail,

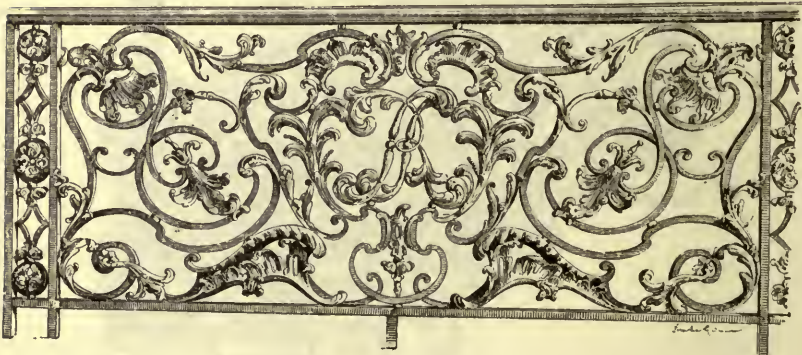


FIG. 122.—Balcony executed by Lamour of Nancy. About 1753.

render this perhaps, intrinsically, one of the least pleasing of styles, but its *tout ensemble* presents an easy luxurious magnificence impossible to surpass. It may be *caviare* to the many, but highly cultivated people in every country give it preference, and certainly, well lighted and upholstered reception-rooms in the Louis XV. taste present an air that is singularly appropriate to the abodes of members of the wealthy leisured classes. This stately ease is proclaimed in every voluptuous curve of the ironwork, and, grand as this had become in the preceding reign, it was as nothing to the towering gates and screens of Louis XV. It was an age of magnificent undertakings in smith's work, but those of Lamour,

at Nancy (Fig. 122), to the order of the ex-king Stanislas of Poland, surpass the rest, as his volume of designs exceeds in scale all previously issued. The great publishing architects, Oppenord, Meissonnier, Cuvilliers, Blondel, and Briseux, continued to give ironwork a prominent place in their works; and engravers, as Huquier, Babel, Crépy, Babin, did not cease to supply books of patterns; but, except Lamour, the smiths themselves no longer published. It seems as if the magnitude of the demand fully occupied them, and thus rendered such outlays superfluous. The church, as well as the aristocracy, became increasingly munificent patrons of the smith, and, under Louis XV., nearly every cathedral in France was provided with grandiose choir-screens. The two metropolitan examples—that of St. Denis, erected in 1709, by P. Denis, and that of Notre Dame, Paris, designed by Robert de Cotte—were executed under Louis XIV., and have been destroyed; but those of Bourges and Amiens, some twenty feet in height, designed by the eminent court artist, Slodtz, and the oft-sketched ones of St. Ouen, made in 1743, remain. Paris itself still abounds in magnificent work produced in this reign, though some of it approaches in style the work of Louis XVI. Specially noteworthy are the choir-screens of St. Roch, of polished iron with gilt-bronze foliage by Doré, designed with the altar and pulpit-rails (Fig. 123) by Challe; that of St. Germain-l'Auxerrois, for which the appreciative clergy presented the smith, Pierre Deumier, with 12,000 livres over and above his contract price of 38,000; that of St. Germain-des-Prés, designed by Oppenord; and some remarkable screens in St. Gervais. The gates of the Lycée and of Sèvres, made about 1759, some work at the École Militaire, and the celebrated staircase of the Palais Royal, by Courbin, are good and accessible specimens of the style. In London, the gates to Holland House recall the style of Lamour; the superb stair-rail from the Bibliothèque is in Manchester House, and some good balconies and screens are to be seen in and about Park Lane.

Unfortunately, the Museum possesses no smith's work from France, dating from the reign of Louis XV.

Between the accession of Louis XV. in 1715, and his death fifty-nine years later, and in so large a country, peopled with such

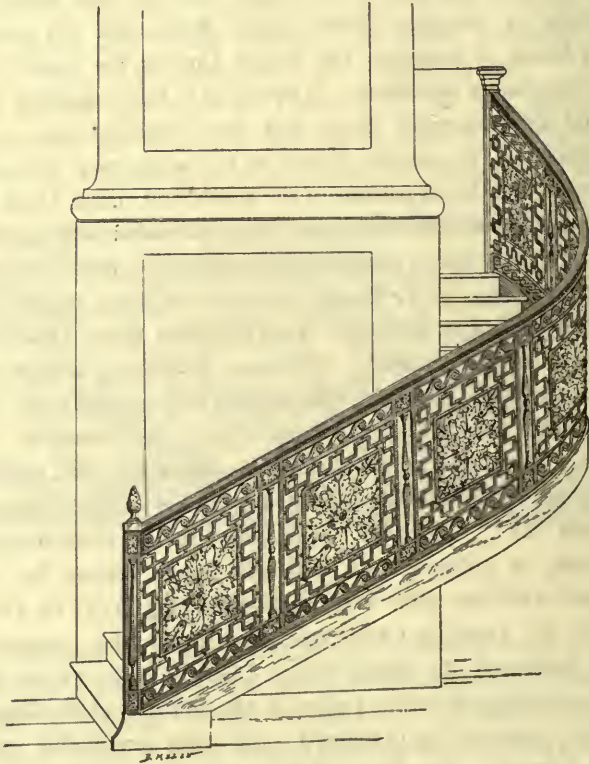


FIG. 123.—Pulpit-stairs in St. Roch, Paris, by Doré and Gallien, designed by Challe. Middle of the eighteenth century.

different and versatile races, there was such scope for development that vast differences are apparent in the ironwork of different decades and from different provinces. Thus, that of the south and west is relatively free from mannerism, and that of Burgundy and the east is most heavy and exaggerated.



Accepting the style of Cuvilliers, produced in the very centre of art and life, and in about the middle of the reign, as typical, we find that the broken curves, the want of symmetry, the curious cockscombs and endive-leaves, so distinctive of the Rococo, may be present without impairing the grace or even the repose of the design. Indeed, the fan and shell movements, the broken convolutions, the intercrossing lines and elaborate ciphers, lose, in the hands of the great Parisian ornamentists, their fantastic elements, and are sobered into the richest harmony. The lines of Cuvilliers flow in rich, often in sudden and daring curves, and, though clothed in foliage with no sparing hand, the acanthus-leaves and plummy tufts of flowers are so slender and exquisitely drawn that the whole effect, with proper surroundings, is restrained and satisfactory. The contemporary work of the Sieur Lamour—a native of Nancy, in Lorraine, which was not yet an appanage of the French crown—is far more pretentious and grandiose, with lines more involved and restless, and lacking the light and shade and consummate knowledge of such great masters as Oppenord. The work, however, is most sumptuous of its kind, and has a grand air; the acanthus-leaves are perfect in drawing, and the endives have the force and sweep of breaking waves of the sea. His designs occasionally introduce the regions of flat trellised bars, with rosettes to conceal the intersections, so rarely seen in French smithing, and so seldom absent in German Rococo ironwork.

The change from the freedom of the Rococo to the more restrained Classic of Louis XVI. is generally ascribed to a revived interest in the antique consequent on the exploration of Herculaneum and Pompeii towards the middle of the eighteenth century. It was felt in Paris shortly before 1750, when the work for St. Roch and St. Germain-l'Auxerrois was executed, and, consequently, almost five and twenty years before the final disuse of Rococo designs in the provinces. Though its first introduction is thus far from coinciding with his accession to

the throne in 1774, the style is known as Louis XVI. Under his reign ornament acquired a very refined and peculiar quality. The elegant precision of the lines, often based on

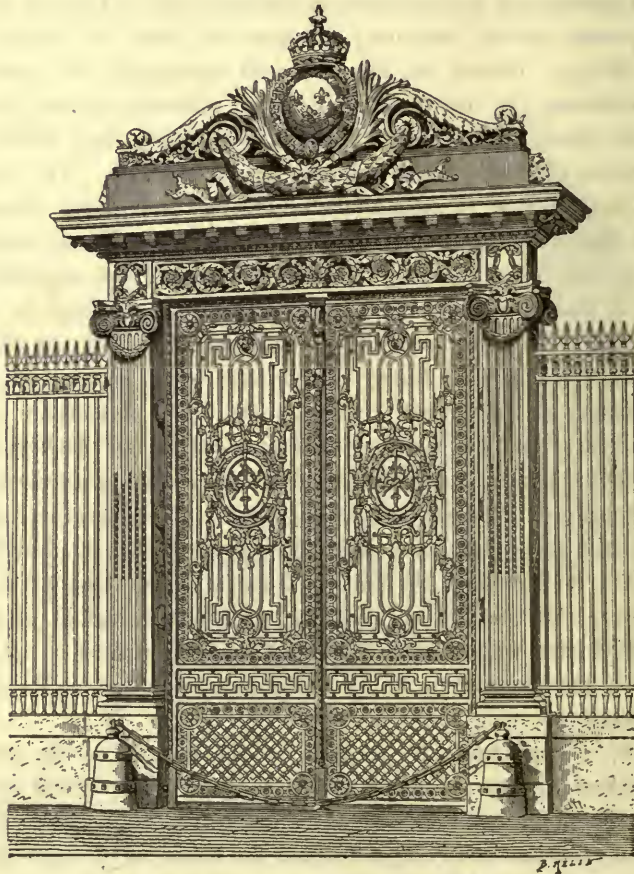


FIG. 124.—Gate to the Palais de Justice, by Bigonnet. Eighteenth century.

the Greek key festooned with swags and wreaths, is less apt for the smith, yet the craft did not at once decline, and many ironworkers continued to achieve celebrity. Indeed, the

young king himself had the reputation of an accomplished smith, and practised the craft under the pupilage of Gamain. The pre-existing churches and châteaux were already furnished with screens and gates, but balconies, stair-rails, and railings

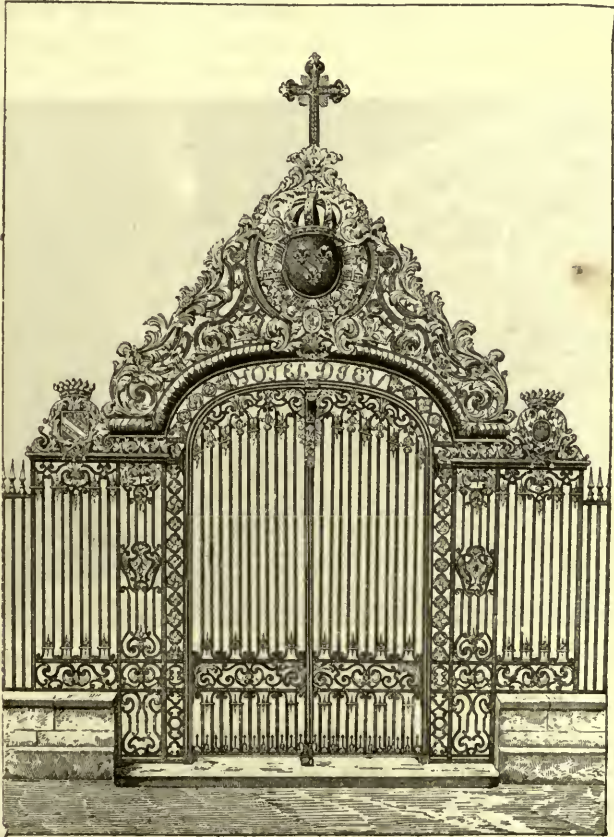


FIG. 125.—Gate to the Hôtel Dieu, at Troyes. Eighteenth century.

for private houses provided endless work. One of the finest productions is the screen of the courtyard of the Palais de Justice, by Bigonnet (Fig. 124), finished at a cost of



200,000 livres. This screen is, as usual, like that of the Petit Trianon, chiefly of bars with tasseled spear-heads, but the gates are rich and of massive grandeur. The designs of these and of several other gates, as those of the old École Militaire, by Fayet, present the greatest difficulty to the smith, while a founder could produce them with such relative ease

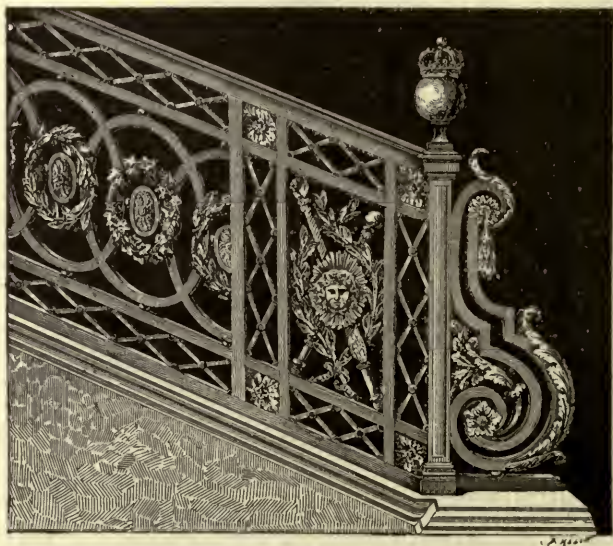


FIG. 126.—Stair-balustrade in polished iron, at Compiègne, by Gabriel. Eighteenth century.

that cast iron was soon introduced for the purpose. A provincial example is seen in Fig. 125. The finest stair-rails, such as those in the Petit Trianon, were massive, with the foliage, cast in superbly chased and gilded brass, applied to the polished iron scrolls and bars. A set by Gabriel, at Compiègne, is shown in Fig. 126. The curious design seen in Fig. 127 is interesting as an example of the differences in style between provincial and metropolitan work at this period; Italian influence in it is strongly marked. The publi-



cations of designers of repute, like Forty, Lalonde, Caillouet, and Aubert, give an excellent idea of the perfection of the ironwork of Louis XVI., whether simple or rich; but the really celebrated smiths, Olivier, Puzin, Faure, Destriches, Roche, Bigonnet, Chopitel, Durand, Margu rite, Couton, Buirette, Fagot, Fayet, and Courbin, published nothing. The only printed illustrations left by smiths are those of G. Bonthomme and J. Breslau, who were not of the first rank.

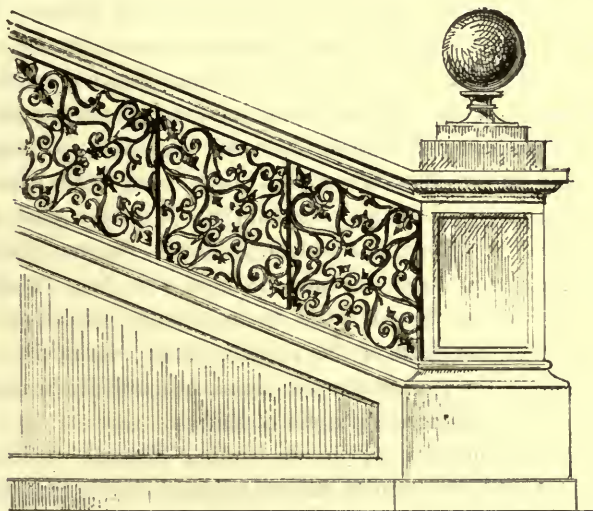


FIG. 127.—Stair-rail, Ch teau Borelli, Marseilles. Second half of eighteenth century.

This is remarkable, as Havard<sup>1</sup> quotes several advertisements in quite the present style, such as the notice in the *Mercur*e for January, 1761, of the work for St. Roch by P r s, who had the year before exhibited his grille for Bourges Cathedral to crowds; and of the large work for St. Genevi ve, shown by the smith at his shop in the Rue Bourdel, in 1769, for three days a week, at the not over modest admission fee of three livres per head. In 1763, Vivarais, a smith,

<sup>1</sup> *La Serrurerie*, par Henry Havard; Librairie Charles Delagrave, Paris.

made a sensation in Amiens by exhibiting a palm tree in iron twenty-one feet high.

It is at least unfortunate that the Museum possesses no examples of the magnificent smith's art of France of the seventeenth and eighteenth centuries; indeed, were it not for the munificent Jones bequest, scarcely any branch of French art during them would be represented in our national collections. Yet during the periods of its highest civilization in the past, the whole of Europe welcomed French art, and allowed it to become paramount without the slightest protest. Ironwork is merely an example, but we see in it, in the border countries,—in Belgium, on the Rhine, and in Switzerland,—simply a provincial rendering of Parisian fashions; and save that distance and strong racial idiosyncrasy did their work, the ironwork of Austria, Italy, Spain, and England was largely copied from the same source. Even in Portugal, Denmark, Sweden, Norway, Russia and the most distant colonies,—in fact, wherever civilization was so far advanced as to require decorative ironwork,—it was fashioned in the French taste. Never since the destruction of the Roman Empire has such unanimity in matters of art prevailed among the peoples of Europe.

The Low Countries, which, in lending Rubens to France, had given a new direction to its art, followed closely the French fashions, and their ironwork reproduces every change in style that ensued during the last two centuries. It has seldom any decidedly distinguishing characteristics, and the names of few designers or workers in iron are preserved. The pair of choir-gates behind the altar of Notre Dame, Bruges, inscribed "J. Ryckam, Oostendanus, fecit anno 1699," slightly recall the Maisons gates of the Louvre in design, but are more simple, though their work is rich. The meetings of the bars are covered on the one side by serried bay leaves and berries, and on the other by oak leaves and acorns. In the centre of each gate is a chalice, with rays of light, in an oval frame, flanked by

cornucopias overflowing with fruit and flowers, and above are two angels or cupids, while the rest of the design is scroll-work, closely set with leaves, rosettes, and tendrils, growing from dolphins' heads. Two small enamelled shields present the arms of the donors, François van Beversluys and his wife. Equally rich brackets by the same hand are disposed on each side of the Michel Angelo in the same church, while others are in the Cathedral and the Church of the Diocesan Seminary. The crypt of the little Church of the Holy Sepulchre contains a small tabernacle door by Pierre Ryckam, the son. The Church of Notre Dame also possesses a handsome pair of gates in the style of Louis XV., and a pair in that of Louis XVI., both fine in character, and surmounted by the arms of the prelates for whom they were executed. St. Gudule, Brussels, contains screens resembling those lost from Notre Dame, Paris; and Tournai Cathedral possesses unusually rich ones in a more florid Louis XV. style. Mons abounds in good domestic examples; the balcony of the Hôtel de Ville, supported on six arching brackets, faced with leaves like ostrich feathers, being the most remarkable. The fine signs for which the Netherlanders had a quite German partiality must now be chiefly sought in museums. Many of the brackets have a quite Flemish rotundity of outline and incorporate quaint figures of men and animals, while the signs themselves comprise coats of arms, horses, and all kinds of emblems in pierced or embossed iron. The short sign-bracket in our Museum, finishing in a rampant lion holding a key, is a typical, but not a first-rate example. A second example in the Museum is given (Fig. 128), from Ynaten.

Many circumstances combined, late in the seventeenth century, to favour the introduction of the French style of ironwork into Germany. The Germans were still a race of smiths, but industry had been checked by the Thirty Years' War, and when it revived, their style smacked of Mediævalism and a bygone past. France had loomed large in the affairs of Germany from the days of

Charles V., and, throughout the prolonged Huguenot troubles, large bands of German mercenaries had found employment across the Rhine. Under Louis XIV., French alliances against



FIG. 128.—Flemish Louis XV. sign-bracket. In the South Kensington Museum. Eighteenth century.

each other and Austria were sought by German princes; and electors and heirs-apparent visited and were dazzled by the grandeur of the French court and its monarch, who towered



above them like a sun-god. It became the peculiar pride of the lesser potentates of Germany to imitate his doings and extravagance, and hence the *Ludwigsliste*, and inflated palaces and pleasure-grounds, which crippled the resources of many a German highness. Grandiose iron necessarily followed, and the design-books of France were reprinted in Germany, together with others of native production; the German workers publishing their designs now, for the first time, after the fashion of their brethren over the border. The style of Louis XIV., as current in Germany, is called the *Barock* (Fig. 129), and that of Louis XV. the Rococo, both being in quality merely provincial French. Amongst their ardent disciples was the architect Paul Decker, who, in his brief career from 1677 to 1713, published several volumes of designs, including a few for ironwork, that are quite indistinguishable from the French. Johann Jacob Schübler, of Nuremberg, another architect, who died in 1741, followed in his footsteps. Sandrart and Schmischek produced books of design for "Arquebuserie," in imitation of the French, even to their titles; while Walck, Schmittner, Funck, Hertel, and others, did as much for smiths' work. Cuvilliers the elder, who died in 1770, father of the better-known François, was, as architect to the Princes of Bavaria and Cologne, greatly instrumental in popularizing the French style. He was ably followed by the Hungarian, Johann Thomas Hauer, who died in Paris as late as 1820, at the age of seventy-two, and by Habermann, Engelbrecht, the two Birckenfelds, Zipper, and many more, until the Rococo merged into the Classic of Louis XVI.

The railings and gates to parks and palaces, the screens in cathedrals, the stair-rails and balconies, are as magnificent in Germany as in France, but, of the seventeenth century, few exist. The balcony in the courtyard of the Vienna Town Hall, by Simon Vogel, is a fine example of *Barock*, of 1725. The municipal accounts have preserved this name, but the smiths of nearly all the grand works in Germany have been forgotten, or were never

recorded. They thus, clearly, did not enjoy the same prestige as in France. The fine screen in the Barfüsser-Kirche, in Augsburg, is by J. S. Birckenfeld, and that in the Geissler-Kirche, in Swabia, by Andreas Schneck. Other noted smiths were Christian Hesse, Michel Buioz, Georg Huber, Christian Eckhardt, and Georg Behringer.

German writers differ as to the limits of the *Barock*, which they regard as originating with the Jesuits of Italy. Some extend it so far into the reign of Louis XV. (to mid-eighteenth century), that they almost confine the Rococo to Louis XVI. The Rococo is the style known as Louis XV., however, and nothing else, and comprises the most sumptuous period of German ironwork. It not only lends itself to the grandiose, but it is difficult to use it with restraint, and tradition imposed so little of this on the German smiths that when wealthy patrons were forthcoming, the greatest extravagance was indulged in. Such were found in Vienna, then in the process of almost rebuilding under Charles VI. and Maria Theresa, who surrounded it with new parks and palaces. The nine gates in the Belvedere Gardens are almost oppressively grand, and of masterly skill in execution, yet the names of their craftsmen and designers are unknown, though some bear the arms and initials of Prince Eugène, for whom the palace was erected in 1724. The imperial gates and balconies at Schönbrunn and Hetzendorf, erected by Maria Theresa, are hardly less remarkable, but nothing surpasses the three window gratings and the entrance to the Chapel of St. John Nepomuk, erected in 1744, after a calamitous overflow of the Danube. The gates, dated 1738, and thus evidently made for another building, served as a model of richness for the windows, in which a most Rococo rendering of Gothic tracery is almost smothered. The screen to the Savoy Chapel in the cathedral, probably erected about 1762, and the painted and gilt choir-screen, of about a century earlier, are worth notice. The nine chapel screens in St. Michael's Church form a fine series of designs, ranging through Louis XIV. and

Louis XV. But Vienna is everywhere rich in ironwork of these

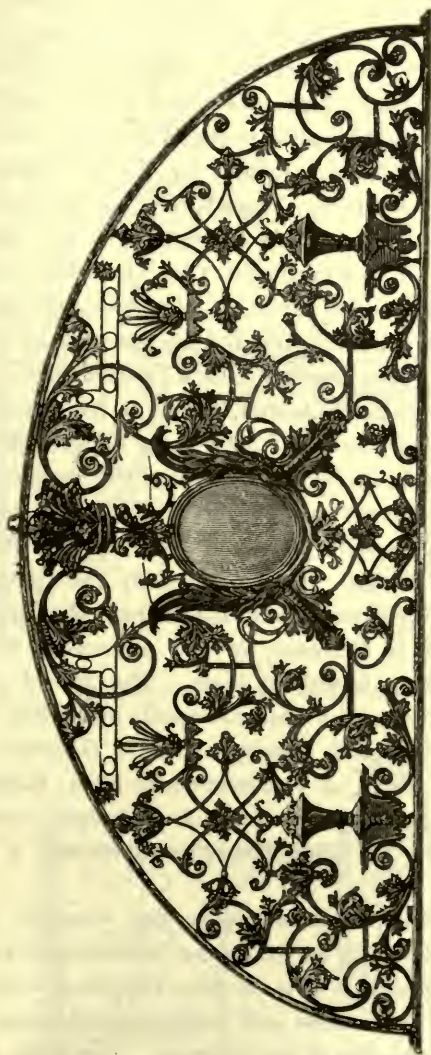


FIG. 129.—A Barock lunette-filling. Early eighteenth century.

periods, especially in association with the buildings of the cele-

brated architects, the Fischers von Erlach. The city has, however, been almost denuded of the fine grilles to fountains and monuments, the sign-brackets and window gratings, which old views show abounding in the last century, and which are still numerous away from the capital. Magnificent work is to be seen in Prince Eugène's palace of Schlosshof, in the Marchfeld, a few miles out. Other notable examples, probably by Vienna smiths, are the three entrance gates to the Pilger-Kirche, on the Hafnerberg, in Franconian Switzerland, made between 1729-45; the gates to the Church of Gross-Weikersdorf, 1740; the rich screen to the Prälaten-Treppe, in the parish of Herzogenburg, the gates of Schloss Esterhazy, in Hungary, and the fine work in St. Florian's, Linz, the latter being, however, a local production.

Beyond the limits of Austria, the most impressive group of Rococo ironwork is that associated with the Prince-Bishop's Palace at Würzburg, built, in imitation of Versailles, between 1720 and 1744. This surpasses even the work of Lamour at Nancy in richness, and is equally perfect in execution if more laboured and inferior in design. Breslau, especially the University, possesses some exceptionally fine specimens; but no palace or public building in Germany, of any pretension, built in the eighteenth century, is without them. The *Barock* and *Rococo* ironwork of Dresden has been thoroughly illustrated, and shows an unusually light and pleasing style, for Germany; and the work in other towns, as Frankfort-on-the-Main, Karlsruhe, and Regensburg, might equally repay a publisher. Some quaint sign-brackets in the Black Forest are illustrated in Figs. 130 and 131.

Our Museums possess no really fine German *Barock* or *Rococo* ironwork, which far excels the Mediæval or Renaissance in point of *technique*. It is, in fact, unequalled—the moulded ends of the massy scrolls and volutes of the finest examples being almost impossible of reproduction. The smith, who seems to have had *carte blanche* in the Renaissance to do as he pleased,



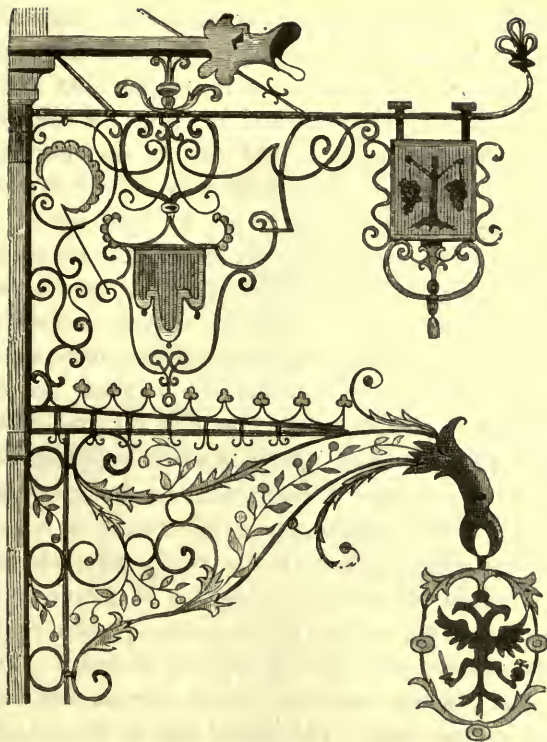


FIG. 130.—Sign-brackets in the Black Forest. Eighteenth century.



FIG. 131.—Sign-bracket in the Black Forest. Eighteenth century.

was now curbed and under the control of the designer, the collaboration and unwonted restraint imparting a character which finds expression in the bold but thoughtful lines and superb finish. Whether we like or dislike the style, the intrinsic merit of the work, and its entire accord with the architecture, cannot be gainsaid. Though closely following the French developments, it may readily be distinguished by a far freer use of armorial bearings, coronets, and ciphers; the leaves, also, are crisper, more shredded, curled, and veined. But, above all, the German smith made a lavish use, in Rococo work, of cartouche and other shaped spaces, filled with trellised straps crossing diagonally, with rosettes at the intersections, which produced a richness like the open cross-stitches of point-lace, and was thus favoured from its resemblance to the interlacing work in which his predecessors had revelled. This feature is rarely seen in French ironwork of Louis XV., though sometimes used by Lamour in Nancy, which was not at that time a direct possession of the French crown.

The Sheffield Museum has a number of pieces, including a curious grave-cover, and two of the crosses, peculiar to Germany, which fully shared in the general richness of design. The South Kensington Museum possesses several screens, and other large pieces of average quality, and a good deal of Rococo locksmith's work, coarsely made, and ill designed, compared to that of the Renaissance, because it was only employed as a substitute for dearer metal. The solidly cased iron doors, like those of St. Peter's, Vienna, of Würzburg, and particularly of Breslau University, made between 1728 and 1739, which are most sumptuously decorated, are of very different workmanship, and, like the rare Rococo iron chests, of fine quality. Brackets, candelabra, and all kinds of smaller articles, were largely made of iron, but generally gilt, in obvious imitation of ormolu.

The style of Louis XVI. had scarcely time to develop to any great extent in Germany—for changes of fashion penetrated somewhat slowly, even in the last century,—before the revolutionary

troubles and French wars arrested it. Since then artistic ironwork has remained dormant, only to be revived in the last

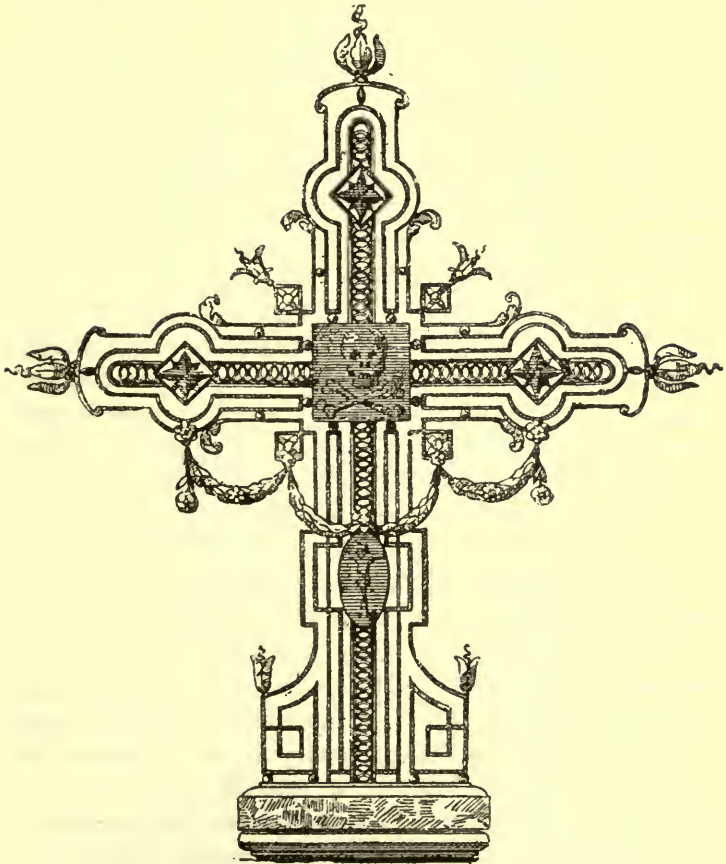


FIG. 132.—Grave-cross in the style of Louis XVI. Eighteenth century.

decade. The grave-cross (Fig. 132) is a good example of the style of Louis XVI. as rendered in Germany.

The Baroque and Rococo ironwork of Switzerland departs less from the French, and is lighter and freer than the German. Princely clients were wanting; but good specimens can be seen

at Geneva, Neuchâtel, Lausanne, and other principal towns. Across the Alps it is not abundant, though the influence reached Italy both directly from France and *via* Germany. It arrived, however, when the country was abject, and its art feeble, when it was in no condition to receive a powerful impetus, and develop and carry it farther, as Germany did. The Italian ironworkers were not the men, moreover, to enjoy heavy hammering and welding, and it only suited them to produce effects in the easiest way. Iron that could be curled into scrolls or twisted into spirals without heat; leaves and flower petals made of thin sheet that could be riveted up cold; collars that could be lapped round with a pair of pliers, were what they had accustomed themselves to; and the real art of smithing, which the Rococo style, especially, demands in the highest perfection, appears to have been in Italy practically lost. We thus find Baroque and Rococo inspirations, but produced by feeble processes, so that the original energy and vigour of the style was continually lost and re-imported, only to fall away and merge into their own weak but pretty style of work of the last century. Among the most satisfactory, from the Rococo standpoint, of Italian examples, is a screen to a chapel in the south aisle of San Ambrogio, Milan. It is light, graceful, and very pleasing. There is another charming chapel enclosure in San Pietro, at Mantua. A screen in the Palazzo Capodilista, in Padua (Fig. 133), furnishes a domestic example full of grace. It is to Venice, however, as having preserved its art traditions less impaired, that we naturally look for the most interesting developments; and here, especially, the mingling of such opposite traditions, methods, and genius, produced the freshest results. There are specimens of Venetian Rococo in the South Kensington Museum which are not unpleasing; but the best examples, by far, are still *in situ*, as those of the Pisani palaces. The entrance gates to the one now known as the Nazionale de Strà, show the result of the fusion of styles on an important scale.





FIG. 133.—Screen in the Palazzo Capodilista, Padua. Eighteenth century.

In Spain the Baroque fell on different soil. The smiths were not enervated, but the country had sunk from its great position,—its wealth and enterprise exhausted,—and great palaces were rather in process of falling to ruin than of being rebuilt. There are thus not many imposing works in iron, either of Baroque or Rococo age in Spain, and what there are have not been brought under notice. The work is a peculiar native rendering, in which there is no idea of shirking its difficulties or lessening its richness. It has neither the grace and sentiment, nor the principles of design, underlying the French work, and it can only be described as a barbaric rendering of an imperfectly understood style, which lacked the opportunity—in other words, the patronage—to lead it into new paths of development of its own, as in the great days of the Florid Gothic and the Plateresque.



## APPENDIX.

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### ALPHABETICAL LIST OF ILLUSTRATIONS OF IRON- WORK PUBLISHED IN FRANCE BETWEEN THE SIXTEENTH AND EIGHTEENTH CENTURIES.

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\* *In the library of the South Kensington Museum.*

† *In the British Museum.*

‡ *In the Soane Museum.*

- ANDROUET DU CERCEAU, JACQUES. Œuvres. 12 plates. Paris, 1515-85. Facsimile ed.\*††
- AUBERT PARENT, designer. Cahiers de Balcons. Paris, 1788.
- AVILER, AUGUSTIN CH. D', architect. Cours d'Architecture (pl. 44*a*, 65*c*, 65*d*). Paris, 1691.††
- BABEL, P. E., jeweller and designer, d. Paris, 1770. Premier livre de nouveaux dessins de Serrureries. 12 plates.
- BABIN, designer and engraver, Paris, c. 1750. Livres (7) de Serrurerie. 70 plates.
- BELLIN, GILLES DE, smith, 1686. A large folio plate of the balustrade, St. Anne's Church, Paris.
- BÉRAIN, JEAN, senr., designer. Diverses pièces de Serruriers, inventées par Hugues Brisville. Paris, 1663. 16 plates. Facsimile ed.\*†  
Diverses pièces très utiles pour les Arquebusiers. Paris, 1667. 10 plates.  
Œuvres de J. Bérain, . . . recueillies par . . . Thuret (pl. 51, 55).\*
- BERTON, MATHURIN, smith. Entrées de Serrures. Several plates, published c. 1658.
- BLONDEL, J. F., architect and engraver. Cours d'Architecture. Paris, 1771-77. Plates (vol. iii., nos. 31-36).\*‡ Nouveau livre

- des cinq Ordres. Paris, 1767. 12 plates (nos. 86-97). De la distribution des Maisons de Plaisance. Paris, 1737. Plates in vol. ii.
- BONTHOMME, GABRIEL, smith. Livre de différents Balcons. Paris, 1775. 6 plates. 1°, 2° et 3° Cahiers de Serrurerie. Paris, 1777. 18 plates.
- BRESLAU, JEAN, smith. Balcons de Serrurerie. Paris, c. 1775. 18 plates.
- BRISEUX, C. E., architect. L'Art de bâtir des Maisons de Campagne. Paris, 1743; 2 ed., 1761. Plates 235-260.\* *Traité du Beau essentiel dans les arts.* Paris, 1752; later ed. with title, *Traité complet d'Architecture.* An V de la République, 1796-97. 4 plates.
- CAILLOUET, designer. 1<sup>er</sup>-3<sup>e</sup> Cahiers de Serrurerie; 4<sup>e</sup> Cahier de six feuilles de Rampes. Paris, c. 1784. 24 plates.
- CREPY, LOUIS, le fils, engraver. Dessins de Serrurerie. Paris, c. 1725. 5 plates.
- CUVILLIÈS, FRANÇOIS DE, père, architect, 1698-1768. Livre (et Nouveau livre) de Serrurerie. Paris, after 1745. 12 plates. Facsimile ed.\*†
- CHÉREAU, J. Cahier de Balcons dans le nouveau goût à l'usage des Serruriers. Cahier de Grilles dans le nouveau goût. Cahier de Rampes. Livre de Serrurerie. 6 plates.
- DAVESNES, ROBERT, smith. Livre de Serrurerie nouvellement inventé par R. D. Paris, 1676. 14 plates. Rampes d'escalier et balcons. 1687. A plate inserted in Jousse. S. K. M.
- DAUBIGNY, PHILIPPE CORDIER, engraver. Motifs d'Arquebuserie. 1635. 14 plates.
- DE LA COLLOMBE, designer. 11 plates, Arquebuserie. Paris, 1730. A larger series, 2 plates only known.
- DELAFOSSÉ, JEAN CHARLES, architect. Andirons, etc., occur in his works on ornaments. 1768.
- DELAUNE, CHARLES ETIENNE, goldsmith, etc., 1519-83. Designs for damasceners, etc.
- DESBŒUFS DE SAINT-LAURENT, architect. Serrurerie. Paris, c. 1765. 18 plates.
- DUHAMEL DU MONCEAU. Art du Serrurier. (*In* Description des Arts et Métiers, Académie des Sciences.) Paris, 1767. 43 plates (some dating from 1716-17).†
- FAY, J. B., designer. Late eighteenth century. 12 plates in Cahier de Serr. moderne dess. et graveé par Fay, à Paris, chez Jean, Rue St. Jean de Beauvais, No. 10\* (prints only).‡



- FONTAINE, JACQUES VALENTIN, smith and engraver. Nouveau livre d'études et principes de Serrurerie. Paris, 1740. 12 plates. Livre de différens couronnements de Serrurerie. Paris, c. 1740. 6 plates.
- FORDRIN, LOUIS, smith. Nouveau livre de Serrurerie. Paris, 1723. 30 plates. Facsimile ed.†  
Nouveau livre de Serrurerie de composition Anglaise. Paris, n.d. 20 plates. A reprint of Tijou's book, in which Tijou's name is erased.†
- FORTY, JEAN-FRANÇOIS, engraver, etc. 1<sup>er</sup>, 2<sup>e</sup> et 3<sup>e</sup> livres. Œuvres de Serrurerie. Paris and Marseilles, c. 1780. 18 plates.
- GANDIN, PIERRE, goldsmith and engraver. Motifs de Serrurerie, rampes et balcons. c. 1615. 4 plates.
- GAUTIER, PIERRE, smith. Divers ouvrages de Balustrades, . . . pour les Serruriers. Marseille, 1685. 22 plates, incl. 6 signed by Jean Gautier, 1688.
- GUÉRARD, NICOLAS, engraver. Diverses pièces de Serr. Paris, 1713. 12 plates. Diverses pièces d'Arquebuserie. Paris, n.d. 10 plates.
- HASTÉ, MICHEL, smith. Dessins de Serrurerie. (Incl. Nouveau livre de rampes, etc.) Paris, c. 1690. 4 series of 6 plates, each bearing the name of F. Poilly. Hasté's name only appears on the dedication.†
- HUQUIER, J. GABRIEL, père, designer. 1695-1772. Nouveau livre de Serrurerie. 60 plates.
- JACQUARD, ANTOINE, designer. Poitiers, 1615. 46 plates: gardes d'épée, entrées de serrure, têtes de clefs, arquebuserie. † (prints only).
- JACQUINET. Designs of Thuiraine and le Hollandois. Paris, 1660. Facsimile ed., published by Quaritch. (See p. 146.) \*†
- JARDIN, NICOLAS, smith. 3 plates. Entrées de serrures, 1646-49.
- JOUSSE, MATHURIN, de la Flèche. La Fidelle Ouverture de l'Art du Serr., 1625; 2nd ed., 1627; 3rd ed., 1659, fol. Facsimile ed.\*††
- LALONDE, — DE, decorator. Œuvres diverses. 6 plates, palastres; 6, heurtoirs; 6, entrées de serrures; 6, anneaux de clefs, etc., de St. Morien sc.; 8 plates,\* grilles, de St. Morien sc., 1789; 4 plates, rampes, Fay sc.; 2 plates, Girardin sc.
- LAMOUR, JEAN, smith. 1698-1774. Recueil des ouvrages. Nancy, 1762, fol.\*†
- LANGLOIS, NICOLAS, engraver. L'Architecture à la Mode. 22 plates, grilles et balcons du château de Versailles; 6 escaliers de jardins.†

- LE BLOND, JEAN, painter and publisher. 1635-1709. 9 plates of work executed at Versailles, Paris.
- LE LORRAIN, GUILLAUME, smith.
- LE PAUTRE, JEAN, architect, etc. 1618-1682. Clôtures de Chapelles, etc. Paris, 1659. Portes de Chœur, 6 plates, fol. Paris, 1661. Livres de grandes portes, etc., 6 plates, fol. P. Mariette, Paris, 1665 (?) Porte cochère. Amstelodami. 1 pl. Ecussons ou entrées de serrures, 6 plates. Livre de Serr. inventé par Jean et gravé par Jacques Le Pautre, 12 plates. c. 1680.††
- LORRIOT, AUBERT. Différents portraits pour les Serr. 1658. 12 plates, Entrées de Serr.
- LIONNOIS, P. 16 plates, incl. one Entrée de serrure, signed P. Lionnois. 1620.
- MARCOU, FRANÇOIS, gunsmith. Paris, 1660. 18 plates. Examples in Print-room, Slade Coll.†
- MARIETTE, PIERRE JEAN, engraver. Grille du Château du Val. 1 plate, Motifs de Serr. 6 plates in Architecture Française. Nouveaux desseins de Serr. 18 plates.‡
- MAROT, DANIEL, architect, etc. c. 1650-c. 1712. Nouveau livre de Serr. 6 plates. La Haye, c. 1690.††
- MAROT, JEAN, architect. 54 plates, serrurerie. Paris, 1619-79.† (pars.)‡
- MARTEAU, — DE. 3 prints of gunsmiths' work, signed de Marteau fecit. \* (prints).
- MEISSONNIER, JUSTE-AURÈLE, painter, etc. 4 plates, serr., 1 signed. Paris, c. 1730.
- MORTIN, I. DE, engraver. Nouveau livre de desseins. 12 plates of work executed for Versailles, c. 1650.
- NEUFFORGE, JEAN FRANÇOIS DE, architect, etc. Recueil élémentaire d'architecture. Vol. V., incl. 6 plates, 1763, and the supplement, 24 plates, 1772.
- OPPENORT, GILLE MARIE, architect, etc. 9 plates, serrurerie. Livre de différentes Portes, 4 balconies shown. Livre de différens fragmens d'architecture, pl. 120 (entrée du chœur de l'Eglise de Meaux) and others.\*
- PATTE, P., architect. b. 1723, d. 1812.
- PELLETIER. 4 plates, c. 1750.
- PIQUOT, THOS., painter. c. 1637. A few damasceners' designs.
- PIERRETZ LE JEUNE, architect. 1666. Livre nouveau de Serrurerie. 12 plates, Paris.†
- POILLY, F. DE, engraver. d. 1693. Nouveau livre de Rampes d'escaliers et Balcons. Paris, 1622.

- POMPEIUS, smith. 4 plates, entrées de serrure; 1, poignée de clef; a frieze, etc. 1612-14.
- POULLEAU, designer. 2 plates of balconies. c. 1740.
- SALEMBIER, designer. 18-19 cent. Divers motifs de serrurerie. 4 plates. Paris.
- SIMONIN, engraver. 12 plates, Arquebuserie. Paris, 1684-85.
- SOUBEYRAN, inv., found on plates with Charpentier, sc.
- TACUSSÉ, HONORAT, 1647-63 (Havard says 1630).
- TORNER, DIDIER. 30 plates, dated 1622-25, signed.
- VALCK, GÉRARD. Escutcheon. Like H. Brisville.
- VALLÉE, G., smith. Divers Livres de Serrurerie. 35 plates. Paris, end of seventeenth century.
- WOEIRIOT, PIERRE, designer and chaser, etc. c. 1532-c. 1600. 8 plates of sword-handles, etc.

LIST OF ILLUSTRATIONS OF IRONWORK PUBLISHED  
IN GERMANY FROM THE SIXTEENTH TO THE  
EIGHTEENTH CENTURIES.

- ALDEGREVER, HEINRICH, designer, 1502-53. Designed sword grips and sheaths, and 3 knockers. Munich.\*
- BAUMANN, JOSEPH, engraver. 3 plates, serrurerie. Augsbourg, c. 1750. M. Engelbrecht ex.
- BAUMGARTNER, JOHANN JACOB, designer. 4 plates, sword-handles, etc. Augsbourg, c. 1727.
- BEHAM, HANS SEBALD, engraver, designer for armour, etc., Nuremberg, b. 1500, d. 1550.
- Designs for armour were produced also by several anonymous masters, 1515-27.
- BIRCKENFELD, J. S. and T. B., designers. (Father and son, 1698-1766). 4 plates, serr. Augsbourg, c. 1730. Engraved by Johann Georg Hertel and Mart. Engelbrecht.
- BRY, TH. DE, goldsmith, etc. Designs for armourers and damasceners, etc., b. Liége, 1528, d. Frankfort-a.-M. 1598.
- DECKER, PAUL, architect, b. 1677, d. 1713. 4 plates, J. C. Reiff sc., and 12 plates, published at Nuremberg.
- EICHEL, EMANUEL, engraver. 8 plates. Hertel. Augsbourg, c. 1750.
- ENGELBRECHT, MARTIN, engraver. Engraved numerous plates of ironwork, and a series of designs for gunsmiths. Augsbourg, c. 1750. †(prints).

- FLOETNER, PETER, designed for armourers and damasceners. d. Nuremberg, c. 1546.
- FUNCK, JOHANN GEORG, architect. Staircase, etc. Frankfort, c. 1720.
- GOTTLIEB, HEIN. 6 plates of grilles, etc. c. 1780. †(prints).
- GRADMANN, JOHANN, engraver. Several plates, style of Louis XVI. Augsburg.
- GROSSMANN, CARL AUGUST, engraver. Several plates, style of Louis XVI. Augsburg.
- HABERMANN, FRANZ XAVER, designer. Several series of plates some published by Hertel, others by Engelbrecht. b. 1721, d. Augsburg, 1796. †
- HAUER, JOHANN THOMAS, designer. Cahier des desseins, etc. b. Hungary, 1748, at Augsburg in 1818, d. Paris, 1820.
- HERTEL, JOHANN GEORG, publisher. 4 plates of grilles. Augsburg, c. 1720.
- HERTEL, FRANZ XAVER, designer. 4 plates. c. 1720.
- HESSE, E. CHRISTIAN, smith, 1769. Regensburg or Halberstadt.
- HOLBEIN, HANS, celebrated artist. Designed weapons, etc. b. Basel, 1498, d. London, 1554.
- HOLLAR, WENZEL, designer and engraver. Designed weapons, etc. b. Prague, 1607, d. London, 1677.
- RUDOLPH, CHRISTIAN FRIEDRICH. 8 plates (rocaille). Augsburg, n.d.
- SANDRART, JACOB, engraver. 12 plates, Arquebuserie. Nuremberg. b. 1630, d. 1708.
- SCHMISCHEK, JOHANN. Plates, Arquebuserie. No date.
- SCHMITTNER, FRANZ LEOPOLD, smith. 6 plates, style of Louis XIV.
- SCHUEBLER, JOH. JACOB, architect. Designs for ironwork. d. Nuremberg, 1741.
- SOLIS, VIRGIL, artist. Designs for armourers and damasceners. b. Nuremberg, 1514, d. 1562.
- VOGTHERR, HEINRICH. Designs for weapons and armour. d. before 1537 (?), Strasburg.
- WACHSMUTH, JEREMIAS, designer. Weapons, lock-furniture, etc., b. Augsburg, 1712, d. 1779. \*(prints).
- WALCK, C. 8 plates, style of Louis XIV.
- WEIGEL, JOHANN CHRISTOPH, engraver, etc. Neues Schlosser, Büchlein, n.d. d. Nuremberg, c. 1746.
- ZECH, DANIEL, goldsmith. Designs for locks, etc. Augsburg, c. 1615.
- ZIPPER, JACOB, smith. 24 plates. Frankfort, c. 1780.
- ZUENDT, MATHIAS. Designs for armourers and damasceners, 1553-69.



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