

ON NIELLO.

A Discourse delivered on occasion of the special Exhibition of Examples of the arts of Niello and Enamel, at the Meeting of the Archæological Institute, June 6, 1862.¹

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CICERO says that, before we begin to discourse upon any subject, it would be as well to know something about the matter in question. As it has fallen to me to offer some observations upon one of the subjects selected for this special exhibition, it may be as well to commence by briefly explaining in what consists the art of niellure.

Niello is a term used to express a composition of silver, lead, copper, sulphur, and borax. At a certain degree of heat it fuses, and when allowed to cool becomes hard. The process by which this composition is made to impart the shadows to engravings on metal is called *lavoro di niello*, or niellure, and derives its name from the black color which the mixture assumes when melted.

The Greeks expressed niello by the term *μελανόν*.²

Du Cange, in his Latin Glossary, gives the word *niellatus*, which he refers to *nigellum*. *Nigellus* he explains as "*aliquantulum niger*;" and he defines *nigellum* as "*encaustum nigrum vel subnigrum, quo cavitas sculpturæ repletur*."³

The French adopted the word *nieller*, which Richelet explains by "*encaustum argento illinire*."⁴

The application of this alloy to engravings on silver gives them the appearance of exquisite pen and ink drawings on a light back-ground. This result is obtained by carefully washing and cleaning the niello, until it is brought to grains

¹ See p. 275, *ante*.

² This term occurs in an Epistle of Nicephorus, Patriarch of Constantinople, to Pope Leo III. See Baronius, *ad ann.* 811, no. 58. Du Cange, *Gloss. ad script. med. et inf. Græc.*, says under the word *Μελαν*,—"Απὸς Πικτορες *Μελαν* dicitur encaustum nigrum vel subnigrum, ex

plumbo et argento confectum, quo cavitas sculpturæ repletur; *Glossæ veteres*, *Nigellum*."

³ *Gloss. sub voce*.

⁴ Dr. Rock has suggested to me, that niello may be derived from the Anglo-Saxon *anelan*, to melt.

like the finest millet seed, when it is spread over the metal surface, which is then heated until the grains are fused. The plate is then taken out of the furnace, and when cold it is cleaned and polished ; the only portion of the niello which is allowed to remain is that embedded in the engraved design, and in the lines hatched to form the back-ground.

The origin of this art is shrouded in the darkness of bygone ages ; it was practised at an early period, and I think it not at all improbable that niellure may have owed its beginning to inlaying, or *tarsia* work, in metal. As there are several modes by which the process is effected, it suffices here to say that this art consists in expressing a design on one metal by the inlaying or incrustation of another. This art of embedding metals one upon the other is doubtless of very early date. In the Canticle of Canticles we read,—“We will make thee chains of gold inlaid with silver.”⁵

The Egyptians, the Greeks, the Etruscans, and the Romans were conversant with the art of *tarsia* work. The shield of Achilles described by Homer was inlaid. Pausanias describes the sceptre of Jove, the work of Phidias, who was a *toreutes*, in addition to being a painter, a sculptor, and a brass caster. (Müller, 81.) Müller⁶ enumerates several existing examples of ancient inlaid work ; and, in the time of Severus, articles of furniture of silver inlaid with gold were in vogue.

But this process of inlaying was laborious and costly ; it is, therefore, by no means unreasonable to suppose that the ancients would endeavour to find out a less expensive substitute for *intarsiatura* in metal. Enamel, as certain antiquaries have imagined, was known to some of the nations of antiquity at an early period, and if they could succeed in discovering a metallic substance or alloy applicable by fusion, they would obtain this desideratum ; this process may have led to the discovery of niello.

It must, however, be borne in mind that there is this difference between inlaid and niello work. The former is the embedding of one metal on the other by pressure, as by aid of the hammer or the like, into the cavities prepared, whereas the alloy for niello by the addition of sulphur becomes a sulphuret, and is applied by fusion caused by the action of heat.

⁵ Ch. 1, v. 10.

⁶ Anc. Art and its remains, p. 356.

The earliest example of niello with which I am acquainted is the small Roman military statue of bronze, found near Barking Hall in Suffolk, and presented by Lord Ashburnham to the British Museum. It is copiously ornamented with niello and *intarsiatura* in silver.⁷

Proceeding in chronological order,⁸ the next example that presents itself to notice is a small silver ampulla of the fourth century, which was found in a silver casket on the Esquiline at Rome in 1793. Around the centre appears this inscription—a pleasing formula in vogue at that time—PELEGRINA. VTERE. FELIX. These letters are in niello. There were also found, in the same casket, some little silver *plaques* with *sigla* or monograms in niello. These have been read thus—PROIETA. TVRCL. Turcius Secundus and another of the family held high offices in Rome in the fourth century.⁹

To about this date I may assign a small gold Roman ring in my collection, set with a sapphire *en cabochon*; the hoop is curiously nielloed. My dactyliotheca contains likewise two other examples of early niello. One is a gold denarius of Constantine IV., Pogonatus—A.D. 654-684—mounted as a ring on the hoop of which, in nielloed letters, is the inscription, + BARINOTA. The other ring has a circular bezel with the bust of a female—possibly intended for our Blessed Lady,—with the letters M.A. And in the British Museum there is a Byzantine gold ring from Sardinia, representing on the bezel three figures in niello, and below them the letters -OMON-. Around the hoop is the following inscription—

ΘΩΕΤΕΒΘΘΗΑΜ

The earliest recipe for niello which I have found occurs in the MS. treatise by Eraclius the Roman, which I believe is derived from Byzantine sources, and was composed about the eighth century: it was transcribed by Le Begue in the fifteenth.¹ It runs thus,—“When you wish to make niello, take equal parts of quicksilver, copper, and lead, and put them in

⁷ It is figured in the *Vetusta Monumenta*, published by the Society of Antiquaries, vol. iv. pl. 11—15.

⁸ Agincourt, *Sculpt.* pl. ix.; also tom. v. p. 321, ed. 1828.

⁹ See Visconti's letter descriptive of it,

p. 12, and Müller's *Ancient Art*.

¹ Lib. Joh. Le Begue, MS. Bib. du Roy, Paris, 6741, art. 251. The original Latin is given by Mrs. Merrifield, *Ancient Practice of Painting*, vol. i. p. 242.

a vessel that they may cook together. Then take of sulphur the weight of six denarii and mix them with it, and stir it. Afterwards withdraw it from the fire, and allow it to become cold; place it in a vase, and take *atramentum* tempered with wine, and draw what you wish upon silver with the *atramentum*, and immediately overlaying the powder of quicksilver, copper, and lead, and then melting it, a beautiful niello may be made."

In the life of Robert King of France we read that in the seventh century, Leodebodus, Abbot of St. Aignan at Orleans, left to that monastery two little gilt cups from Marseilles, which had crosses of niello in the centre.² In 811, Nicephorus, Patriarch of Constantinople, sent to Pope Leo III. a pectoral cross of gold, of which one side was set with an embedded crystal, and the other ornamented with niello (μελανὼ).³

By this time doubtless the Anglo-Saxons had become acquainted with the art of niellure. When or by whom it was introduced there is no evidence, but, as it is a matter of history that the Saxon jewelers and *inclusores gemmarum* enjoyed an European reputation and worked in foreign countries, it is probable that this art was brought back by some of the Saxons on their return from service abroad.⁴

Unfortunately, through the lust of plunder which characterised the Danes, and subsequently also the needy invaders led by William the Norman, our country was recklessly despoiled of all objects of intrinsic value, without any regard to their artistic merits and interest: hence it is, that so few examples of the skill of our Anglo-Saxon forefathers in the precious metals have been preserved. There exist, however, five Saxon nielloed rings of gold; a nielloed fibula is also preserved in the British Museum, which, although found in Tuscany, has the characteristic features of Saxon workmanship.

Of these rings, three are in the National Collection. One, found in the river Nene, near Peterborough,⁵ has two cir-

² "Scutellas ii. minores Massilienses deauratas, quæ habent in medio cruces niellatas," Passavant, *Peintre Graveur*, i. 282.

³ Baronius *ad ann.*, and Du Cange sub v. Nigellum.

⁴ In an able paper read before the Accademia of London in July 1861, Dr. Rock proved satisfactorily that the celebrated Golden Altar at Milan was the work of an Anglo-Saxon artist.

⁵ Arch. Journ., vol. xiii. p. 87.

EXAMPLES OF GOLDSMITHS' WORK ENRICHED WITH NIELLO.

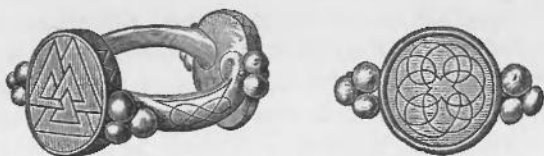


Fig. 1. Gold Ring found near Peterborough.—Brit. Mus.



Fig. 2. Gold Ring found in Lancashire.—Sloane Coll., Brit. Mus.



Fig. 3. Gold Ring bearing the name of Ethelwulf.—Brit. Mus.



Fig. 4. Gold Ring, now in the Collection of Edmund Waterton, Esq., F.S.A.
Found at Lllys faen, Caernarvonshire.

cular bezels ornamented with interlaced triangles and flowing curves engraved and inlaid with niello. (See woodcut, fig. 1.)

The second, which is a simple hoop, bears around the outside, in niello, an inscription in Anglo-Saxon letters mixed with Runes, ÆTHR'ED MEC AH EANRED MEC AGROFT (see woodcut, fig. 2) : *i. e.*, Æthred owns me, Eanred engraved or wrought me. It was found in Lancashire, and was first noticed by Hickes, *Thes. t. i.*, præf. p. xiii.

The third is the celebrated ring bearing the name of Ethelwulf, King of Wessex, A.D. 836-838, and father of Alfred the Great.⁶ (See woodcut, fig. 3.)

I am the fortunate possessor of the fourth, which is a massive gold nielloed ring with the name of Alhstan, who was Bishop of Sherborne from 823 to 867. (See woodcut, fig. 4.)

It is not improbable that the two rings last mentioned may have been made by the same goldsmith.

The fifth Saxon nielloed ring was found, in 1754, on Bramham Moor in the West Riding of Yorkshire; and, after being exposed for some time for sale at York, and offered for its weight in gold, it ultimately found its way to the Royal Museum at Copenhagen, where it is preserved and valued as it deserves to be.⁷

In addition to these examples, there is another important piece of Saxon niellure, unfortunately no longer in our land. It is a shrine of silver with figures of several Saxon kings in niello around it; it contains the head of a saint, according to tradition that of St. Oswald, but it cannot be the head of the sainted Saxon king of that name, since that precious relic was buried with the body of St. Cuthbert, which still lies safely concealed and undisturbed at Durham Cathedral. This valuable shrine is preserved at Hildesheim, where there is also a very remarkable specimen of early Byzantine niellure, with Greek inscriptions in niello.

Of Irish niellure there are several examples. In the British Museum there are two pastoral staves, ornamented both with *tarsia* work and niello. This combined use of the

⁶ The discovery is related in the *Archæologia*, vol. vii. p. 421. See also *Arch. Journ.* vol. ii. p. 163; Shaw's *Dresses and Decorations*, and Labarte's *Handbook of the Arts of the Middle Ages*, p. 126.

⁷ It was first noticed and figured in

Drake's *Hist. of York*, App. p. cii. It was rescued from the crucible by Mr. T. Gill, of that city. It appears in Worsaae's valuable illustrations of the Royal Museum at Copenhagen, *Afbildninger*, fig. 342.

two arts seems to be an adaptation peculiarly Celtic; it appears again on the celebrated Cross of Cong, which was made about the year 1185.

In the Loan Museum at South Kensington Lord Fitzhardinge exhibited a remarkable gold ring, which is ornamented with niello (Catalogue, No. 7172). It presents the same treatment of animals' heads which appears on the foot of the Cross of Cong, and I think that this ring may safely be assigned to Irish workmanship.

The Museum of the Royal Irish Academy, amongst other interesting objects, possesses a pendant hook of bronze inlaid with silver and also nielloed.⁸ The scroll-work of the silver, to use the words of the accomplished author of the Catalogue, Mr. Wilde, is of a peculiarly Irish character; the silver is bordered on either side by niello.⁹

I have seen some silver brooches of early date, ornamented with niello, in Scotland, and which were found in that country, but, from the repetition of the same pattern or design for many ages, on such personal ornaments, it is difficult to assign to any of these examples a precise date. The Dunvegan cup, belonging to McLeod of McLeod, and which bears the date of 1493, is ornamented with niello.¹

In Germany, however, we meet with niello of an earlier date, and which may be referred to the tenth century. In the treasury of the church of the château of Quedlinbourg, amongst other valuable objects, there is preserved a reliquary, the gift of Otho, the first Emperor of that name (936-973), which is ornamented with figures of the Apostles in ivory, with some little works in enamel and an antique cameo head of Bacchus; it is enriched also with silver *plaques*, on which are represented the bust of Christ and those of eighteen saints, in niello.²

Of the same date is a silver paten which is in the church of the castle at Hanover. It is the work of St. Bernward, Bishop of Hildesheim, who died A.D. 1023. This niello represents our Blessed Lord with his arms extended, seated on a rainbow, and surrounded by the symbols of the four

⁸ This specimen is figured at the close of this memoir.

⁹ Catalogue of the Museum of the Royal Irish Academy, fig. 483, p. 572.

¹ See the detailed notice of this

remarkable cup by Mr. Alexander Nesbitt, Arch. Journal, vol. xii. p. 79. It is figured in Dr. Wilson's Prehistoric Annals, p. 670.

² Passavant, Peintre Graveur, t. i. p. 263.

Evangelists and of the four Cardinal Virtues. Around is the following inscription,—

“ Est corpus in se panis qui frangitur,
in me vivet in eternum qui bene sumit eum.”

And, on the back, on a piece of old parchment, “Ista patena (*sic*) fecit Sanctus Bernwardus.”

The design is Byzantine, but M. Passavant says that the proportions of the figures are good, and the niello of fine execution.³ In the treasury of the cathedral of Hildesheim there are several other nielli, the work of St. Bernward; amongst them may be mentioned a paten, and a chalice of silver gilt.⁴

Another interesting example of early German niello is in the treasury of the church at Quedlinbourg. It is a reliquary made in the time of the Abbess Agnes who died in 1203; it bears in letters of niello, on a steel plate, the following inscription,—TEMPORE AGNETIS ABBE ET ODERADIS P'PR FACTA EST HEC CAPSA.⁵

At Cluny in France, under St. Odilo, who died in 1048 at the age of eighty-seven, the columns of the sanctuary of the church were plated with silver, and finely ornamented with niello.⁶

We may now proceed to some further practical details concerning the art of niello.

Theophilus the Monk, a German, who wrote that valuable treatise on the Arts, the “*Diversarum artium schedula*,” about the year 1220, gives not only a recipe for the composition of niello differing somewhat from that of Eraclius, but also describes minutely the process to be observed in its application to the metal surfaces prepared to receive it. Furthermore, he adds that in his time Tuscany was celebrated for its works in niello.⁷

³ Id. 264.

⁴ Id. 264.

⁵ Id. 264.

⁶ Texier, Manuel de l'Orfèvrerie, p. 1822. A ciborium of gilt metal, in the collection of the Hon. Robert Curzon, jun., is decorated with lozenge-shaped plaques of niello work and enameled glass pastes, alternately. It is of Italian work, thirteenth century. Catal. Loan Exhibition, No. 1020.

⁷ The reading of some MSS. is *Ruscia* instead of *Tuscia*, but the latter is that generally received. Theophili Presbyteri et Monachi diversarum artium schedula, ed. C. de l'Escalopier, Paris, 1843, pref. p. 8, and note, p. 312; in Mr. Hendrie's edition, accompanied by an English translation, Lond. 1847, this remarkable mention of niellure as a Tuscan art occurs at pref. p. 50. See also Cicogn. Storia della Scult., Prato, 1823, t. iii. p. 168.

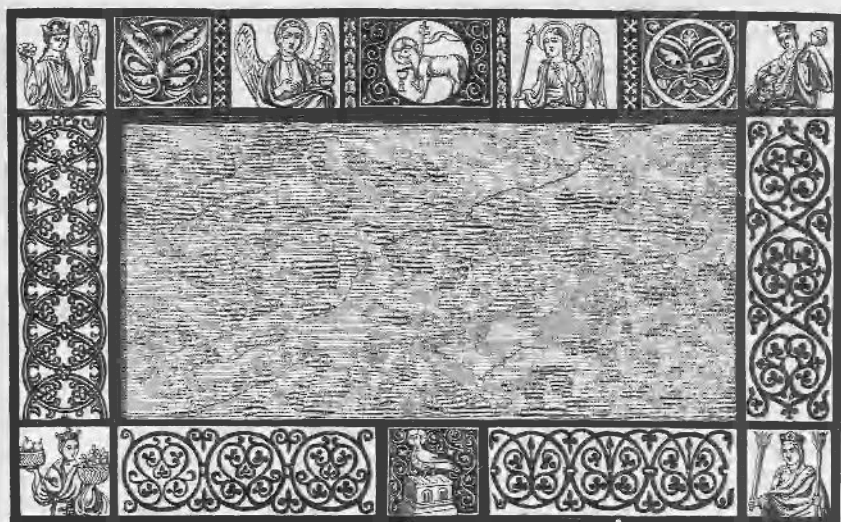
This is his recipe :—

“Take pure silver and divide it into two equal weights, adding to it a third part of pure copper. When you have placed these three quantities into a cast metal cup, weigh as much lead as half of the copper which you have mixed with the silver weighs, and taking yellow sulphur break it very small, and put the lead and part of this sulphur upon a small copper vessel, and place the rest of the sulphur in another cast metal cup. And when you have liquefied the silver with the copper, stir it evenly with charcoal, and instantly pour into it the lead and sulphur from the small copper cup, and again mix it well together with the charcoal, and with quickness pour it into the other molten cup upon the sulphur which you had put into it, and then putting down the small vase with which you have poured out, take that into which you have cast it, and place it in the fire until the contents liquefy, and again stirring it together pour into the iron crucible. Before this cools, beat it a little and warm it a little, and again beat it and do thus until it is quite thinned. For the nature of it niello is such that if struck while cold it is immediately broken, and flies to pieces, nor should it be made so warm as to glow, because it instantly liquefies and flows into the ashes.” Ch. xxviii., ed. Hendrie, p. 237.

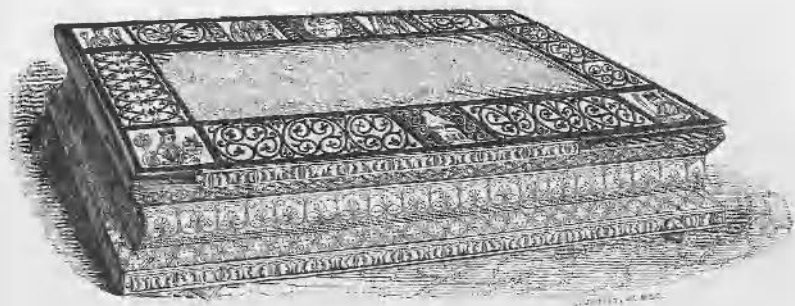
Labarte describes a nielloed plaque of the end of the twelfth century, which he considers to be of French work. The subjects allude to the sacrifice of Christ, and his triumph over death. One of the compartments represents Abel and Melchisedec, the other Jesus on the Cross, with an allegorical figure of the Holy Church, which receives in a chalice the blood flowing from Our Lord's wounds. On the other side is the Synagogue, typifying the Mosaic dispensation, with averted head and broken banner. Our Blessed Lady and St. John are also delineated.⁸

During the next two centuries we meet with many examples of niello. Of the thirteenth, the most important, as well as the most interesting specimen of its kind, is a super-altar in the possession of the Very Rev. Canon Rock. The stone of which this precious object is formed is *diaspro orientale*, let into a solid piece of wood encased in silver. On the upper surface there is a border, $1\frac{1}{2}$ in. in

⁸ See Labarte, Handbook of the Arts, p. 98.



W. H. MILLER, DEL.



W. H. MILLER, DEL.

Super-altar, of oriental jasper, with silver-gilt ornaments enriched with niello.—Date, thirteenth century.

In the possession of the Very Rev. Canon Rock, D.D.

Dimensions, 12 in. by 7½ in. Formerly in the Treasury of the Abbey of Avellana.

width, of silver gilt, so placed as to hide the wooden bed in which the marble is set. This border is ornamented with scrolls, some cut with the graving tool, others filled up with niello. At the four corners are figured the elements, symbolized by young maidens, each wearing a diadem. In the middle of the furthest border appears a nimbed lamb, holding the cross staff, with a bannerol and two transoms, a chalice is on the ground before the *Agnus*, to receive the blood which gushes from its breast. To the right is a nimbed angel holding a long sceptre; on the left another nimbed angel, with the orb of sovereignty surmounted by a double-transomed cross. In the centre of the nearer border a dove, nimbed, stands upon an altar. (See woodcuts).⁹

Although niellure was practised in Germany and elsewhere at this time, it was nowhere more commonly employed, either with greater success or more important results, than in Italy. The German goldsmiths, according to Passavant,¹ filled up the engraved plates with a sort of black composition or inferior kind of niello, an example of which may be seen on a copper plaque of the first half of the fourteenth century, representing the Blessed Virgin, and which was formerly attached to the west door of the church of Our Lady at Halberstadt. Another example occurs on the votive tablets of the Abbot Ludwig, in 1477, made by Wolfgang, a skilful goldsmith who worked at Augsburg: of these plates some impressions were struck off. But in the sixteenth century they applied themselves again to niellure, and we frequently meet with little plaques and silver objects ornamented with niello, destined for personal use. Mr. Octavius Morgan, M.P., possesses a baldrick of crimson and gold brocade velvet, with nielloed plaques at the ends charged with the armorial bearings of the Malatesta family, lords of Rimini and Cesena. A fine silver drinking cup with a cover, of Flemish work, and of this date, is in the British Museum.

In France, niello-work was much practised during the thirteenth, fourteenth, fifteenth, and sixteenth centuries. The glossary by M. de Laborde enumerates many examples of nielloed objects, dating from 1260 to 1566, including book-covers, reliquaries, hanaps, *nefs*, clasps of gold, cameos

⁹ This fine work is figured in Cicognara, *Mem. Spettanti alla Storia della*

Calcografia, &c., and in *Arch. Journ.*, vol. iv., p. 247.

¹ Page 264.

set in nielloed gold mountings; a chalice; several basins for washing in, a cover for a book of the Gospels, a small pastoral staff, many rings, and other articles. These quotations show how general was the use of niello in France.

We must now retrace our steps to Italy. Here a succession of celebrated niellists flourished, and, although many of their works have perished, not a few choice examples of their skill have been preserved. Dr. Rock possesses a silver-gilt chalice, the work of Master Bartholomew Sir-pauli of Atri, formerly belonging to the Gaetani family, and supposed to have been one of the chalices made for Boniface VIII. (1294—1303). Around the stem is an inscription in niello, stating that it was made for Antonius Sabini.²

In the church of Sta. Maria di Mercato at San Severino, there is a reliquary containing the hand of St. Philip the Apostle. On this *capsa* there are two nielli in the form of the Greek cross, and eight small medallions, whilst on the base of the stand is the name "Gerardus Jacobi Cavalca de Bononia ĩ. CAM," who executed this work in 1326. And at the same place there is also a cross ornamented with nielli of the date 1379, the work of Pietro Vanini of Ascoli.

Of this date there is a ring in my collection with the names CATARINA v NICOLA, nielloed.³



In Cremona, niellure was much practised. In the cathedral there is a cross, the work of the celebrated Beato Facio of Verona, in the year 1262, and the only existing specimen of his proficiency. Mention is made of other niellists at Cremona: Tommaso Fodri in 1465; Ambrogio Pozzi and Agostino Sacchi of Milan, in 1478; Innocenzo Bronzetti of Cremona, in 1479; Pietro di Campo in 1500; and Geronimo di Prato in 1550. At Cividale, in 1374, Maestro Dondino qu^m. Brimorio executed, for the church of St. Donato, the bust of that Saint ornamented with nielli. Forzore, son of Spinello of Arezzo, is cited as excelling in niello. He was the scholar of Maestro Cione, about 1330.

In the inventory of Charles V. of France, a curious piece of Italian niello-work is thus described,—“une nef d'argent dorée sans couvescle, semée de pièces niellées, et de cristaux, donnée au Roy par le Pape Grégoire (1370—1378).”⁴

² Journ. Arch. Inst., vol. xvii., p. 263.

³ Arch. Journ., vol. xvi., p. 192.

⁴ L. de Laborde, Glossary.

Brunelleschi, the celebrated architect, born in 1377, was a goldsmith in early life, and was highly in repute for his works in niello.

A MS. of the early part of the fifteenth century, and formerly belonging to Cardinal Alberti, is now preserved in the Library at Montpelier. It contains notices upon the materials and processes used in the arts, and amongst other recipes gives one for niello which is the same as that of Eraclius already quoted.⁵

It was about the middle of the fifteenth century that niellure attained its greatest perfection, and with it are associated the names of many illustrious artists. Francesco Francia of Bologna, the master of Marc Antonio, may be mentioned; also Jacopo Porta of Modena, who in 1486 executed a Pax for the cathedral of his native city; and Peregrino da Cesena, who nielloed a beautiful little Pax representing St. Jerome, now in the British Museum.

There are, moreover, the two sides of a cover of the Gospels which belonged to Pope Paul II., and which were executed during his reign, 1464—1471. The designs in niello are of extraordinary beauty. One of them was in the Manfrini Collection at Venice: the other, I believe, is in the possession of the Duke of Hamilton.

The Florentine jewelers were distinguished for proficiency in niellure. Amongst celebrated niellists at Florence may be named Matteo di Giovanni Dei, who, according to Gori, executed in 1455 for the church of St. John a Pax representing the Crucifixion. He also engraved another with the subject of the Conversion of St. Paul; this was never finished, and no niello was applied to it. It is in the Uffizi at Florence. Still more distinguished than Matteo Dei, was Antonio del Pollajuolo, who was a painter as well as a goldsmith. Speaking of him, Cellini says, “fu orefice eccellentissimo e cotanto valse nell’ arte del disegno, che non pure gl’ altr’ orefici si servirono delle sue invenzioni, ma molti Scultori e Pittori di quei tempi, mediante quelli, se fecero onore.”⁶

Contrasted with our modern ideas, this is indeed a curious passage, for it shows how, at that time, a jeweler could not

⁵ Hendrie's Transl. of Theophilus, p. 39.

⁶ *Arte dell' Oreficeria*: ed. prin. 1, b.

pay his brother craftsman a greater compliment than by adopting his designs and inventions.

Amongst other works, Pollajuolo executed several Paxes, all of which, with one exception, have perished. This is now preserved in Florence, and represents the Taking down from the Cross. I believe it is doubtful whether he executed many nielli. The names of other niellists have been recorded. Amerighi and Michael Angelo Bandinelli, at Florence; Francesco Furnio, Bartolomeo Gesso, and Geminiano Rossi, at Bologna; Ambrogio Froppa of Pavia, Giacomo Tagliacarne of Genoa, Teucro the son of Antonio, and Giovanni Turino of Sienna, one of the pupils of Pollajuolo. In addition to these may be mentioned Antonio Danti, Pietro Dini, Gavardino, and Leo Giovanni Battista Alberti. These artists are mentioned, not in connection with any great works of art, but as having executed objects for church and other purposes, and adorned them with nielli.

We now come to the most important part of the History of niello—the discovery of Chalcography.

We have abundant evidence from old authors, as well as from existing examples, that the art of plate-engraving was known to the ancients,⁷ but we have no proof that they had discovered how to take impressions from the plates. The invention of that art was reserved for Italy, and it seems to have owed its discovery to an accident.

At the head of all the artists in niello must be placed Tommaso, commonly called Maso, di Finiguerra. He was the scholar of Masaccio, and an admirable workman in niello, in which his proficiency has never been surpassed. In 1452, when only twenty-four years of age, he was employed by the merchants of Florence to execute for the Baptistery of St. John the celebrated Pax representing the coronation of the Blessed Virgin. It was this Pax which led to the discovery of chalcography.

“From this kind of engraving,” says Vasari, “was derived the art of chalcography, by means of which we now see so many prints by Italian and German artists throughout Italy; for, as those who worked in silver, before they filled their

⁷ Pliny enumerates, as especially excelling in the art of engraving on silver, Lesbodes, Prodorus, Pithodæus, and

Polygnotus, who, he adds, were also most excellent and renowned painters.—Lib. 34.

engravings with niello, took impressions of them with earth, over which they poured liquid sulphur, so the printers discovered the way of taking off impressions from copper plates with a press as we see them do in these days.”^s

Vasari continues—“The art of copper-plate engraving derived its origin from Maso Finiguerra, a Florentine goldsmith, about the year 1460. For it was the custom of that artist, whenever he had engraved any work in silver which was to be filled with niello, to take an impression or mould of it previously with very fine earth; over this mould he poured melted sulphur, from which when cold the earth was removed; the sulphur cast then exhibiting an impression corresponding with the engraved plate was, lastly, rubbed with soot moistened with oil, until all its cavities were filled with black, when the whole produced an effect similar to that which the niello afterwards gave to the engraving on the silver. He also took impressions upon damped paper with the same dark tint, pressing a round roller, smooth in every part, over the paper, by which means his works became printed, the impressions so taken assuming the appearance of drawings done with a pen.”

Hence it appears that the impressions which Finiguerra was accustomed to take from his engraved silver plates were of two kinds. The first was an impression on fine earth from which a sulphur cast was taken; the second was on paper, from the plate itself, by means of a roller. The Hon. R. Curzon, jun., possesses an unique impression of a niello on vellum, an object of the greatest rarity.

The practice of taking sulphur casts from engraved plates before filling the incised lines with niello was customary with those who exercised the art. Finiguerra was followed in his invention of taking impressions on paper from engraved plates by Baccio Baldini; afterwards the secret became known to Mantegna at Rome, and travelled to Germany and elsewhere.

It is gratifying to be able to state, that, of the twenty-four sulphur casts which are known to exist, eighteen are in the British Museum. Of these, there is one which deserves special mention. It is the cast of the famous Pax of Maso

^s I have used Ottley's translation, which is preferable to a literal transla-

tion of the text of Vasari. See Enquiry into the origin of Engraving, vol. i., p. 267.

Finiguerra now at Florence. Dr. Waagen says :—"It is chiefly indebted for its celebrity to the circumstance that the Abbot Zani, the finest judge of Italian engraving, discovered in 1797 an impression of it on paper in the Royal Cabinet of Engravings at Paris, which he conceived to be the same, which, according to Vasari's account, led to the invention of engraving. Since then, this impression has been considered by many judges to be the first and oldest of all engravings."⁹ Doubts exist, however, I believe, whether the impression of Finiguerra's Adoration of the Magi was not earlier than that of the Coronation of the Blessed Virgin.

Several of the other sulphur impressions in the British Museum are described by Dr. Waagen. Our National Collection is also rich in impressions of nielli on paper. The actual nielli in the British Museum amount to ninety ; and in addition may be enumerated one undoubtedly spurious. It is indeed very useful, for the sake of study and of comparison, to have access to an undoubted forgery.

We have abundant evidence from existing examples that, at this period, niello was employed in the ornamentation of many articles of personal use. Knife-handles, weapons, girdle-clasps, chalices, crosses, brooches, and rings were often decorated in this manner. Several interesting nielli are preserved in the Museum at Kensington. In the Loan Collection a very remarkable pair of stirrups were exhibited by Mr. Forman. They are of the Arab model but of fine Italian work, and profusely ornamented with niello and enamel. A gold pectoral cross formerly belonging to Sir Thomas More, and now preserved at Stonyhurst, has all the instruments of the passion represented in niello on the back.



Silver Ring enriched with niello. Fifteenth century.

I may be permitted here to invite attention to several Florentine nielloed rings in my own collection. They bear on the bezel, the head of a female in profile, with a flower under the nose. Occasionally such rings have on the hoop the *fede* or two hands conjoined.

With the exception of two in the collection formed by Mr. Isaacs, subsequently the property of the late Lord Londes-

⁹ Waagen, i, p. 242.

borough, and a modern forgery in a public collection, I know of no other rings of this class, neither can I find mention of them by any author. They appear to have been unknown to Cicognara and Duchesne. I have given my explanation of their object and use in a previous volume of this Journal,¹ and the theory I then propounded has been confirmed by an inscription on a niello in the Bibliothèque Impériale, described in Duchesne's *Essai sur les Nielles*, No. 322.

It is remarkable that an art so much cultivated, and attended with such important results in the fifteenth century, should have fallen into disuse in the early part of the sixteenth. It would appear that, by the accidental discovery of chalcography, Finiguerra gave the death-blow to that art in which he excelled every other craftsman. In 1515 Benvenuto Cellini wrote, that, when he set himself to learn the goldsmith's art, niellure was almost entirely laid aside. "Hearing continually," says he, "from the old goldsmiths how widely diffused was this art, and especially how Maso Finiguerra excelled in niellure, I with great zeal set myself to follow the footsteps of this brave jeweler. I was not content with learning only how to engrave the plates, but I would become acquainted also with the method of making the niello itself."²

He then gives his recipe for niello, which consists of the following proportions :—of silver one ounce, of copper two, and of lead three. I am not aware that there exists any engraved nielloed plate, the undoubted work of Cellini.

Towards the end of the sixteenth century niello-work seems to have fallen into disuse in Europe except in Russia. It is probable, however, that the Russians had learnt the art from the Greeks, at an early period, and that it never became lost. M. de Laborde mentions that he saw in Dresden a massive gold *kofchik*, or drinking-cup, with a Slavonic inscription in niello. This cup was stated to have belonged to John Basilovitch of Russia, 1462—1505. For some time past, as at the present day, niello has been much used in Russia for snuff-boxes and other objects.

In the early part of this century there were several collectors of nielli, amongst others, Sir Mark Sykes in England, and Count Cicognara in Italy. The latter wrote a treatise upon

¹ Arch. Journ., vol. xvi. p. 316.

² Arte dell' Oreficeria, 11.

the subject, and M. Duchesne has also contributed a very valuable work, his "*Essai sur les Nielles*," which I have consulted with no slight advantage.

The demand for nielli led, as is usual, to a supply of false works, skilfully prepared in Italy for the unsuspecting virtuoso. It is suspected that Cicognara was in some manner concerned in these forgeries. I am not competent to offer an opinion, but I may observe that whenever an "unsatisfactory" niello appears, it is generally ascribed to the Cicognara school. One of the Cicognara nielli may be seen in the British Museum ; and, as I have said before, it is of great advantage to have access to an unquestionable forgery. Another, which appears to bear the Cicognara stamp, may also be seen in one of our public collections.

I should mention that Cicognara observes³ that by application of potash he succeeded in removing completely the niello from a silver plate, thus reducing it to the state in which it had left the engraver's hands, and from this he had impressions struck off. He then states that it is equally possible to restore the niello, and that with a little practice an artist would be capable of undertaking a work of the finest description ;—"senza tema di restare in defetto."⁴ And finally he admits that he could show some examples of both sorts.

Many of the imitative nielli, I am informed, were brought to England by a Venetian ; they were quickly regarded with suspicion, and he was advised to leave the country with his importations. On his way back to Venice, he stopped in Paris, where it is understood that he accommodated an unwary collector with nielli to the amount of 2000*l* !

In 1833, Signor Fortunato Pio Castellani applied himself to niellure, and executed a very beautiful Pax, which is now preserved in his establishment in Rome, as a specimen of his art. He prepared his niello after the recipe of Benvenuto Cellini.

Mr. Hardman, of Birmingham, has lately sent to the International Exhibition a chalice copiously ornamented with niello, which was prepared after the recipe of Theophilus ; Mr. Powell, who is the skilful superintendent of the metal department in Mr. Hardman's establishment, told me that it is exceedingly difficult to apply the niello to a convex

³ *Memorie Spettanti alla Storia della Calcografia*, del Conte Cicognara : Prato. 1831, p. 38.

⁴ *Ib.* p. 40.

surface. Mr. White, of Cockspur Street, has begun to adapt niello to the ornamentation of watch-cases; and I understand that Mr. Skidmore, of Coventry, has revived niello-work in his establishment. But in none of the recent attempts to revive the lost art, so far as I have seen, has the delicacy and fineness of ancient Italian nielli been obtained.⁷

In addition to the examples of ancient goldsmiths' work enriched with niello, which have been noticed in the foregoing memoir, the following specimens preserved in our own country may be briefly cited. In the British Museum,—the Anglo-Saxon ornaments discovered some years since at Ash, in Kent, and figured in Boys' Hist. of Sandwich; they were purchased for the National Collection at the sale of antiquities in possession of the late Mr. B. Nightingale. Niello occurs also on the richly decorated relics of the same period disinterred in the Isle of Wight, and described by Mr. Hillier in his History of the Island. Niello is to be seen freely introduced on the casing of the "Barnan Cualawn," or Bell of St. Cualawn, a remarkable relic formerly in the collection of Mr. Cooke, of Parsonstown, Ireland, and now in the British Museum. This curious bell has been figured in the Transactions of the Kilkenny Archæological Society. The like enrichment is found, more sparingly, upon a bell exhibited in the Museum formed during the meeting of the Institute at Worcester. See the Museum Catalogue, p. 17. A very interesting specimen of early work in niello is presented in the *acus* or *spinula* of mixed metal, partly silvered, in the collection of the Society of Antiquaries, one of those found in Ely Cathedral with the remains of Wolstan, Archbishop of York, and by which, it is believed, the pall was attached to his chasuble. Wolstan died at York in 1023, and was buried at Ely. His tomb having been opened in the twelfth century the vestments in which the body had been deposited were found in perfect condition, according to the relation in the *Liber Eliensis*, which expressly mentions the "*casulam et pallium auratis spinulis affixum*." Lib. II., c. 87, p. 206. Publ. of the Anglia Christiana Society. The relic measures 5 $\frac{2}{3}$ in. in length; the flat, lozenge-shaped head is ornamented with an interlaced design, inlaid with a kind of niello. Catal. Mus. Soc. Ant., p. 21. The example of Irish work in niello, of which, by the kindness of the Royal Irish Academy, a cut is here given, has been described in a previous page.

Bronze Irish ornament inlaid with Niello. (See p. 323.)



⁵ The most perfect list of nielli which has yet appeared is given in the "Peintre-Graveur," by Dr. J. Passavant, vol. i. pp. 250-350, and which has been of great

assistance to the writer on the present occasion; he has also availed himself of the works of Duchesne, Ottley, and Cicognara.