

VISITS TO ART-MANUFACTORIES.

No. I.—THE TERRA-COTTA WORKS OF JAMES PULHAM, BROXBOURNE.

In the pretty and pleasant village of Broxbourne, reached by the Eastern Counties Railway, and distant nineteen miles from the Metropolis, there is a small, but very interesting, manufactory of works in terra-cotta, to which we desire to conduct our readers. It is situate on the Lea, where its current runs side by side with "the New River." The site is historic; it is close by the famous Rye House, and contains the quiet and unobtrusive hostelry, existing to-day as it did two centuries ago, where honest Izaak Walton met and chatted with his friends when they used to go "a fishing" on the banks of the fertile stream, when the wind was south, and the trees were putting on their robes of green. We note these facts as additional inducements to attract visitors to this Manufactory, located, as it is, in a neighbourhood full of interest and rich in the picturesque.

Our details concerning the establishment may be fitly introduced by some remarks concerning the clays of England, by PROFESSOR HUNT, F.R.S., to whom we applied for aid in the department with which he is so familiar, and who will be generally associated with us in our reports arising from the "VISITS," it will be our duty, from time to time, to make to leading Art-manufactories.

We shall endeavour to select such as either exhibit works of high excellence, have large capabilities, or are affording satisfactory proofs of progress—bearing in mind that without publicity producers must labour without appreciation; that there is a point beyond which "patient waiting" cannot go; and that to appreciate merit it is imperatively necessary to make that merit known. In some cases our aid will be of comparatively little value to the producer; as, for example, in reference to the prosperous factory of Messrs. Crossley, at Halifax, concerning which we shall soon be called upon to treat; in others—as in the instance under notice—we may be valuable auxiliaries, materially assisting to promote the success that ought to attend all rightly-directed efforts for the production of manufactured Art, distinguished as well by taste and purity of design, as by practical utility in its application.

When we consider the peculiar facilities which are offered for producing in clay copies of works of Art, and for reproducing good original designs, and when the economy of production is also taken into account, it appears somewhat extraordinary that the use of terra-cotta has not been extended among us. The argillaceous earths of this country are of the most valuable character; and they are of almost infinite variety as regards plasticity, texture, and colour. With all these advantages, from some cause or other, there has not been any extensive production of ornamental works in this material. By giving the subject a place in the *Art-Journal*, we may be the means not only of drawing attention to an art which has hitherto been far too much neglected, but also of very widely extending its use.

The use of *terra-cotta* (baked clay) is of the highest antiquity. Amidst the relics of the oldest civilization, images and ornamental objects in this material are common. Indeed, as soon as man began to mould the bricks with which, when dried in the sun, he built his dwellings, the facility with which other forms were produced in the same material could not fail to have been observed. Thus amidst the ruins over which the sands of the Arabian deserts now sweep, we find examples of works in terra-cotta. If we turn to Central America, there too—mingled with the wrecks of cities and *débris* of temples of which tradition can scarcely tell the tale, of which all historical record is lost—we find the symbolic idol, and other works of Art, rude, indeed, but still examples of the early struggles of man to give permanence to that which was beautiful or sacred to him, constructed of clay; the figures in some cases having been merely sun-dried, while in others they have been subjected to a careful baking.

Baked clay was much employed by the Greeks and the Romans; and, indeed, the latter people have left us, in the fields of Essex and of Yorkshire, and on the banks of the Thames and the Medway,

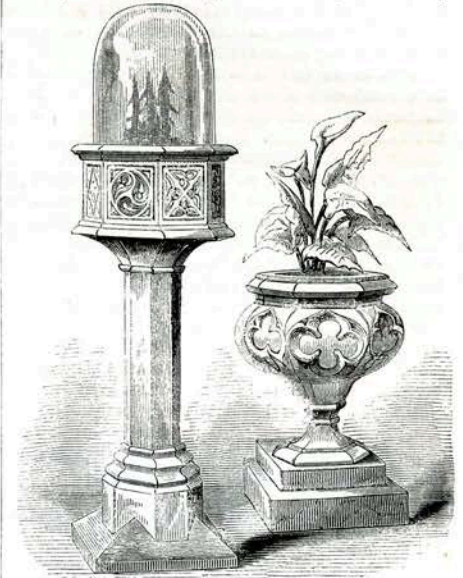
numerous evidences of the extent to which they worked in this material. Through the middle ages, too, and especially in Italy and Spain, the use of terra-cotta as a material for ornamentation was extensive. The remains of Moorish works especially show how largely the Mohammedan invaders of Europe availed themselves of the use of clay;



and the lessons which they taught were not soon lost, even when they themselves retired to the southern and eastern shores of the Mediterranean Sea. Thus we see, that the production of terra-cotta ornaments may be considered as the most ancient operation of the Arts, and the facts mentioned also prove the truly wonderful durability of this material.

A notice of some of the conditions—physical and chemical—of the clays of this country, will not be considered as out of place in an article devoted to the consideration of the terra-cotta manufacture.

Clay is rarely found pure in nature; it is usually



combined with silica, with lime, and iron, and often with other bodies. Pure clay—the alumina of chemists—is absolutely infusible in the greatest heat to which we can subject it. It possesses a remarkable power of holding water mechanically combined—and this even when it has been exposed to very high temperatures. This pure clay will, in

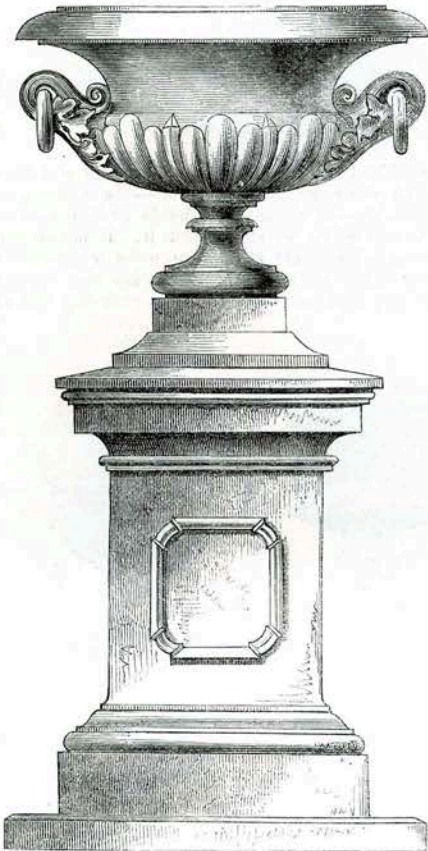


the porcelain furnace, contract into about one-half of its total bulk. Wedgwood, to whom we are especially indebted for investigations on this point, and to whom we owe the useful *pyrometer*, points out that a mass of pure clay (alumina) must be heated very cautiously, otherwise it will decrepitate

and fly in pieces, owing to the sudden expansion into steam of the water combined with its particles, and which is retained with a considerable attractive force. Not only is this pure clay infusible, but it will not dissolve in the fusible glasses, and hence it may be employed to give opacity to flint or other

glass. If either lime or silica be added to the pure clay, the mixture will not melt in the hottest furnaces; but if the alumina, lime, and silica, are previously mixed together, it melts—the more readily when the mixture is made in certain definite proportions. A knowledge of these facts is of the utmost importance to the manufacture of terracotta, or of any other argillaceous body.

Clay, as we find it in nature, may be regarded as a compound of alumina and silica, with lime, magnesia, and iron, and also, not unfrequently, with much organic matter. Hence we have clays varying greatly in their degrees of fusibility; some in their tenacity, both in the wet and in the dry state; in their contractibility, or shrinkage when exposed to fire, and in their colours; while some of them are without plasticity, or the facility of being moulded,—all of these being points of the utmost moment to the manufacturer. The clays that we usually employ are the clays of our coal formations, these being generally the result of the decomposition of the older rocks, which have formed, in a large majority of cases, the soils upon which the plants have grown from which our fossil fuel has been derived. The clays of the carboniferous series vary one from



the other, almost as much as they do from the clays which we derive from other geological formations. The most remarkable of these argillaceous deposits are those which are so extensively worked in the neighbourhood of Stourbridge—they are largely used, on account of their infusibility, in the manufacture of glass-house pots and fire-bricks. We also find them employed, in some few instances, for the production of ornamental works. At some of the large coal and iron works of Yorkshire considerable attention has also been given to the production of articles of use and for ornament, from the clays which are interstratified with their coal and ironstone beds.

Under the denomination of *common clay*, or *loam*, we have every variety of clay, from a very tenacious aluminous mass to the poorest *brick-earth*. The better varieties of this clay are soft to the touch, forming with water a tenacious paste, and being tolerably diffusible in that fluid. Although soft to the touch, such clay wants unctuousity. Nearly all the common clays, also, as they contain much lime and iron, are fusible at an ordinary furnace heat. The best example of this argillaceous substance is afforded in the London clay formation, which consists chiefly of bluish or black clay, which is very tough; it is not,

however, adapted for the production of works of an artistic character, owing to its coarseness, its contractibility, and its fusibility.

Potter's clay, so called, is compact and unctuous to the touch, polishing with the pressure of the fingers merely, forming, with water, a semi-transparent mass: it is excessively tenacious, and very ductile; it is infusible in the porcelain kilns, and usually burns white. The geological position of the potter's, or plastic clay, is beneath the London clay, and above the sands which cover the chalk

formations. The general composition of this important clay is, silica 42.5, and alumina 33.2, with a very small quantity of lime and iron, and about 18 parts of water. In terra-cotta manufacture this is one of the most important of clays. It exists in very great abundance in Dorsetshire, and is especially worked in the neighbourhood of Pool, to supply the great Staffordshire potteries, and the "stoneware" potteries of all parts of this kingdom, and indeed those also of the continent.

The plastic clays of France are not equal to those



of these islands. M. Brongniart says, "Most of the plastic clays of France employed for earthenware have the disadvantage of reddening a little in a somewhat strong heat, and hence it becomes necessary to coat them with a soft glaze, fusible by means of an excess of lead at a low heat, in order to preserve the white appearance of the biscuit; such a glaze has a dull aspect, and cracks readily into innumerable fissures by alternations of heat and cold."

China clay and Pipe-clay.—These may be re-

garded as clays of the same character and of a similar origin—both being derived from the decomposition of the felspar of the granite rocks. The pipe-clay has been washed down by nature, and deposited where we find it—in basins, usually along the sides of valleys, while the china clay is washed and prepared by the hands of man. These are the purest of the natural clays, and may be regarded as consisting of silica and alumina in nearly equal parts, the alumina being more frequently in excess. These clays are exceedingly infusible.



Such are the natural productions from which the manufacturer of terra-cotta has to choose, and by judiciously selecting and carefully combining these, the best results may be obtained.

One of the greatest difficulties with which the manufacturer of terra-cotta figures and ornamental works has to contend, is the contraction which the clay suffers in drying, and the yet greater contraction which it undergoes in the process of baking.

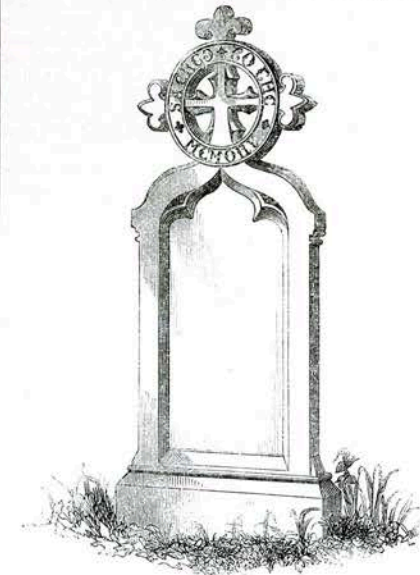
Alumina, and the aluminous natural clays,—which possess the most plasticity, and, consequently, those which are the best fitted for the modeller,—are apt to crack in drying, or to lose their shape. This very serious defect is rectified, in some measure, by adding to the clay a proper proportion of sand—the more siliceous the better. By this admixture a compound is formed which has less attraction for water, and dries more equally from the openness of

its grain. In terra-cotta figures the artist has also to guard against the different degrees of thickness in the various parts; where there is much variation in this respect, desiccation takes place unequally, and irregular contraction, and hence distortion, is the result. Hard-burnt stoneware, ground to powder, and incorporated with clay, answers still better than sand for counteracting the great and irregular contraction referred to.

It is altogether unnecessary to adduce any arguments in support of the proposition that clay is a material capable of being successfully and advantageously employed for the production of works, as well in the higher departments of decorative art as in the case of those which are at once less aspiring in their character and more commonly in use. At the same time it is unquestionably true that this valuable and beautiful material has been almost altogether overlooked by us, except in its direct application to the productions of the potter. Some few works have indeed, from time to time, been produced; but they have been regarded rather as exceptional instances of the misapplication of clay, than as such examples of success as ought to lead

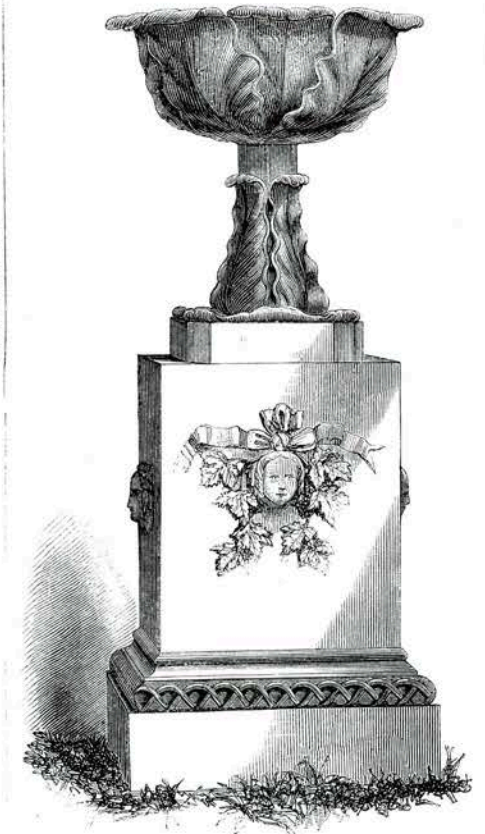
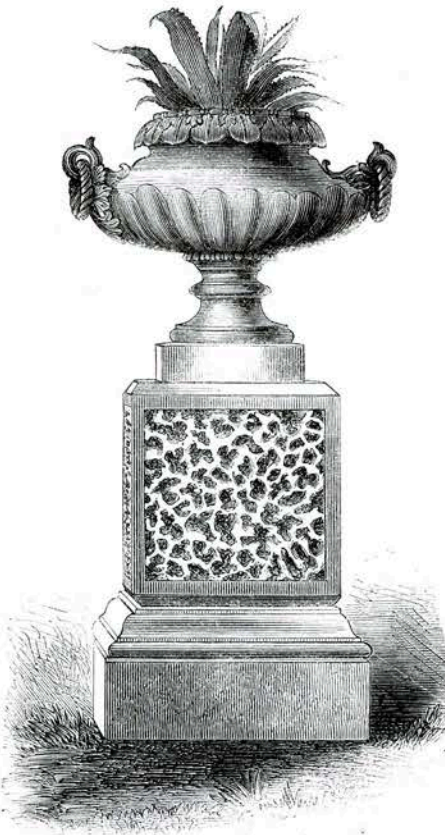
in favour and prevailed, leaving the more noble and well-nigh time-defying terra-cotta to languish in neglect. It is not our purpose to discuss the qualities of stucco, or to investigate how far it might be regarded as a legitimate material for constructive decorations, or for purely decorative accessories. Having an opinion of our own, and a

having been overlooked. Due care was not exercised in the preparation of the clays, and consequently the results, as might have been expected, were far from being satisfactory. Now a due care in the preparation of the clays for terra-cotta implies an experimental, correct, and thorough knowledge of the natural properties of these substances: and this is the point to which but little attention was directed. As in the potteries, so also in our terra-cotta works, with a very few exceptions, but little regard has been bestowed upon the chemistry of the subject, and still less upon the physical phenomena which it involves. These are matters that are now beginning indeed to attract attention; and it may safely be assumed, as we consider, that the progress of such scientific inquiry will be necessarily attended with vast improvements in every species of ceramic production. The worker in terra-cotta has to deal with materials all of them to be grouped together as constituting a single class of natural substances, but which, at the same time, are distinguished (as we have already shown) the one from the other by various peculiar and often conflicting qualities. There is no such thing as a terra-cotta clay ready for use under specific



very decided one, upon the subject, we proceed to consider more fully the circumstances that have militated against the recognition and use of terra-cotta.

There are three distinct conditions in all manufacture, the concurrent action of which is essential for success: these are—that the qualities of the material employed should be thoroughly understood;



to other and more comprehensive results. The very admirable terra-cotta heads of the Caesars which stud the brickwork of Hampton Court Palace afford a case in point: they are as sharp and perfect as when Cardinal Wolsey received them as a present from Italy,—and yet who has ever regarded them as suggestive of the capabilities of terra-cotta for the production of the decorative accessories of our English red brickwork? It is probable that the lesson taught by good terra-cotta has been neglected, in consequence of the imperfect and unsatisfactory results sometimes to be observed in works produced by this process in clay. Sharpness and symmetry have not always proved to be attributes of terra-cotta; and, consequently, when flatness and distortion have appeared in their stead, the process of terra-cotta has suffered in reputation, and it has been regarded as by far too uncertain for general adoption. Hence we may suppose the stucco family to have derived their origin. Something that could be modelled and run into various ornamental forms was imperatively demanded by the requirements of modern building and decoration. If it failed to fulfil every expected condition, stucco was found to be both cheap and easy to manage; and so it grew

secondly, that the material, when scientifically used, should be applied to objects and for purposes consistent with its nature; and, thirdly, that the various objects produced should exhibit evidences of appropriate and elegant design. The neglected state of terra-cotta appears to have arisen, to a very great extent, from the first of these three conditions

conditions that are in every instance equally applicable.

In the terra-cotta works of Mr. James Pulham, at Broxbourne, there is very gratifying evidence that the science of his manufacture has received due attention. Hence he has been enabled to produce his "granulated stone-like terra-cotta," and his "natural stone-colour cement." Both are materials of great value and importance—both have already proved their practical capabilities, and, without doubt, when they become better known, both will be brought into widely extended use. The former of these materials, however, is the more valuable of the two, since, from the physical constitution of the mass, objects produced in it have less contraction, coupled with more general uniformity of texture, than can be obtained in any other clay.

In the matter of the applicability of terra-cotta to various purposes, which shall all of them be consistent with the qualities of that material, Mr. Pulham finds before him a wide field, and one that has been but little explored. We were glad to observe that here, as in the case of his scientific inquiries, Mr. Pulham is acting upon sound principles. His kilns are employed for the production both of the

THOMAS UWINS.*

commoner classes of articles for builders, and of those which may claim a more intimate association with Art. Thus it is, probably, that he obtains such employment, and realizes those profits which enable him to issue from his establishment productions that, in a commercial sense, cannot "pay," although it is through the instrumentality of these "better things" that a reputation is often made, and so encouragement is given by which perseverance is ultimately rewarded. In both classes of objects Mr. Pulham may widely extend the range of his operations with the utmost advantage; and, more particularly, he may anticipate the most gratifying results from the production of a class of works in which the distinctive qualities of both classes may be combined. What we so much want is *artistic common things, and useful artistic things*. We want to have Art stamping its genuine impress upon all those minor accessories of buildings which can be so happily executed in terra-cotta; and, on the other hand, we have no special sympathy with mere vases, for which we have to seek something that may represent a use. And so also with many other objects, as well as with architectural details and accessories. The application of terra-cotta to purposes strictly architectural affords a wide range for the genius of the Art-manufacturer. The inlaid and glazed tiles which Minton brought to such perfection, while primarily designed for pavements, have been found to be occasionally applicable for purposes of surface decoration upon walls. They make good and effective "strings," or bands which separate stories and compartments of buildings. But for all such purposes the flat tile cannot compare with the terra-cotta wrought in relief—assuming, that is, that the terra-cotta be equal in intrinsic excellence with the tile. Cornices, again, ornamental accessories for doors and windows, with others which might form the angles of buildings, or mark the limits of the several houses in a continuous group,—all these, with many other architectural works, may be so well executed in terra-cotta that they will command the attention of our architects. Thus we may hope to see genuine brickwork in more general use, in combination with architectural terra-cottas of real excellence. It is also most important that Mr. Pulham should introduce into his establishment new principles of design. Without taking his stand with the exclusive advocates of either of the rival schools of Art, Mr. Pulham may seek from natural forms and combinations such designs as will infuse into his works a vitality and a freshness not otherwise to be obtained. It is very well to reproduce a fine work of some early artist, but it is much better, having imbibed that old artist's spirit, to design a fresh work for ourselves.

The pages we have devoted to this subject contain engravings of about twenty of Mr. Pulham's productions; and we have selected those examples which, for the most part, more particularly illustrate the terra-cottas of the higher order as works of Art. The selection was made from a very large number of works, of all classes and orders—some original and others copies—with but few (perhaps none) that can be considered objectionable to the instructed eye and the artistic mind. Amongst the vases there are two or three that will at once be recognised, as having been familiar favourites for centuries; while others, which will be no less readily distinguished, have been designed expressly for the manufacturer. These vases have been exclusively used, we believe, as decorations of gardens and conservatories, for which office they are eminently qualified, from the good tone of their colour and the sharpness of their manipulation. It would indeed have been a fortunate circumstance had a large number of these vases in terra-cotta occupied the places now filled in the gardens of the Crystal Palace with cold duplicates of some of the coldest and feeblest productions ever manufactured from marble.

There are no doubt very many persons who desire information as to the source from which they can obtain articles of this character; we are therefore assisting them in their search, while we may enjoy the satisfaction of aiding to reward a very meritorious manufacturer, whose productions especially require that publicity which is very difficult to acquire, and is, in this, more than in most cases, an imperative necessity for the achievement of success.

THERE are few artists whose career afford so valuable an example, from its commencement to its close, as that of Thomas Uwins. Apprenticed to an engraver, when he had an earnest longing to become a painter, he exchanged in early life the burin for the pencil, and illustrated numerous literary publications. He painted portraits, too; and his gentle manner, united to his ability, rendered him popular as a drawing-master. But he had higher aspirations; and, after long struggle and perseverance, by his own exertions he obtained the means to realize the cherished object of his life, and quitted England for Italy.

The first volume of this work contains an introductory memoir, coldly but carefully written, and somewhat encumbered by a series of sketches of Mr. Uwins' fellow pupils in the art of engraving; a list of exhibited works, both during his membership of the Water-Colour Society and the Royal Academy; a brief history of the Sketching Society, in which our gracious Queen took so much interest; a few letters from France and Scotland, where Mr. Uwins passed some little time previous to his continental residence; and the commencement of the "Letters from Italy." The second volume of the memoirs is filled by Mr. Uwins' correspondence with his brothers, Doctor and Mr. Uwins, during his seven years' residence in Italy. To this is added a number of letters to and from the late Sir Thomas Lawrence, Sir Charles L. Eastlake, Mr. Chalon, and Mr. Severn. Distinguished men do not always write remarkable letters, and since this correspondence Italy has been made as familiar to us as France; but there is a vigour, a simplicity, blended with keen observation and perfect frankness, in the letters of Thomas Uwins, which brings Rome, Venice, but especially Naples, before us, glowing in the enthusiasm of a genuine artist. It is curious to compare the rugged, discontented tone of Mr. Uwins' letters from Scotland—a country ungenial to him in every way, despite its natural beauty, and to which he was unsympathizing, if not unjust—with the harmony that breathes through communications from Italy. Nor can we wonder at this: the Italian climate suited his delicate and sensitive constitution, and its Art treasures and "sunniness" warned him into that excellence which those who knew his early drawings never imagined he could have attained. His book illustrations were certainly conspicuous for the truth of their "story telling," and their correct drawing, and his works in "the old Water-Colour Society" were always attractive; but we will remember the sensation created by the first oil paintings he sent from Italy to England, and the difficulty in believing they were the work of his delicate hand,—his Italian peasants in the foreground, and the delicious Italian scenery. The atmosphere of those earlier pictures has never been surpassed. This was not the fruit of inspiration, or what is called "genius," but of study, industry, and observation. In his letters Mr. Uwins frequently reverts to his age, regretting that he had not enjoyed the Art-opportunities afforded by a residence in Italy at an earlier period; but his mind was as fresh at forty, nay, much fresher, than the mind of "young England" at half that age: witness a passage from one of his eloquent letters to his brother Zachariah:—

"All the dreams of my infancy, all the waking visions of my youth, and all the inventions of my riper years, have been realized, exceeded—a thousand times exceeded—by the rich and voluptuous assemblage of beauties which are scattered with unsparing hand round the Bay of Naples, and the still more interesting Gulf of Salerno. Antiquities, merely as antiquities, do not much affect me: when I have once realized sentiments of departed greatness, I can do no more; but the beauties of nature take me by storm. History has but one page—Nature is inexhaustible!"

The devotion of Uwins to Art was only another phase of his devotion to Nature; and it is interesting to trace in these pages his earnest love of his Protestant faith, in the midst of superstitions from which he revolted. Unswayed by bitterness or unkindness, he does not anathematize those who differ from him: he pities, but never persecutes.

Sir Thomas Lawrence, that accomplished gentleman, who made time to arrange and think for all within his sphere, took a warm interest in Mr. Uwins' progress, and wished him to make some studies while he was in Rome from "Eve receiving the Apple," on the ceiling of the Sistine Chapel,

the "Sybil," half rising and shutting her book, the "Almighty creating Adam," or of the finely-proportioned young man engraved in the frontispiece of Gavin Hamilton's "Scota Italica." He tells him, in the true spirit of Art,—“Mere general representations of them would not satisfy me. The outline must be nicely true, the character and proportions accurate, of the 'whereabouts' of each figure or group. I have in prints repetitions without number, and they all fail in the true line of elegance or grandeur that so distinctly marks the productions of that great man." Mr. Uwins, however, declined this honourable Art-mission: his timidity prevented him undertaking such a task, and certainly it was one of no little magnitude.

There have rarely been two volumes laid before the public of private correspondence containing so little scandal; indeed, the manner in which Mr. Uwins eulogises his friends, not so much when writing to them as when writing of them, is perfectly chivalrous. He loved them *next* to the Royal Academy, which unknowingly he worshipped—believing it "infallible." Mrs. Uwins has kept back sundry details as to the difficulties and trials Mr. Uwins experienced connected with his keepership of the National Gallery. We expressed our opinion of the attacks made upon him at the time, and have in our possession more than one letter from the artist, acknowledging the obligation, and warm in thanks. We engaged him to touch the plates of the engravings from the Royal Gallery, which have in due course appeared in this publication—a task he delighted in almost to the last. He knew and loved the originals so well, that he was peculiarly fitted to correct any fault of the engravers; and he did so with the utmost care and attention. The Queen had great confidence in Mr. Uwins' knowledge of Art, and his appointment as keeper of the Royal Galleries emanated directly from her Majesty.

Mrs. Uwins, to whom, however, he was only united a few brief years—six or seven, we believe—has paid a beautiful tribute to his character in old age, when she says, "At home he made cheerfulness a social duty, and uniformly avoided every word that could awaken care or anxiety." We remember Mr. Uwins before he went to Italy, when we were but beginning to comprehend the value of a picture, and regretted that his going abroad deprived us of the lessons we hoped to have received. He was then, as ever, a small, spare, delicate-looking man, his dark hair thinning, and his clear, grey, intellectual eyes almost concealed by his long eyelashes and overhanging brows. His manners were timid and uncertain, but ever gentle, especially to children, who always loved him. "In the faces of plain persons," says his biographer, "whose thoughts are chiefly busied with truth, beauty, and benevolence, especially if they have been chastened by much sorrow, there may be seen at times an expression little short of transfiguration, when the soul appears to illuminate and elevate the expression, quite independently of the features. This rather rare quality of expression, by being repeated, continues to ennoble the countenance throughout life, and usually terminates in extreme beauty of old age, when the lines of the face, and even of the figure, express only repose, refinement, and reflection. . . . These lines of true genius were impressed upon the countenance of Thomas Uwins." We quite agree with the writer in the truth of these observations, and upon their effect on her husband; but we cannot call them the "lines of true genius;" they are the impress of what is better—pure morality and religion.

Mr. Uwins died at Staines, at the age of seventy-five years and six months, and was buried there, in the new burial-ground adjoining the old churchyard.

He was never a great artist, but his pictures were always of a "good" class; and the high order of his mind was evidenced by his choice of subject: it ever exhibited reading, thought, and earnestness of purpose. He was, as we have intimated, exceedingly sensitive, and more prone than he ought to have been to receive annoyance from hostile criticism; while he rarely attached much value to that which was laudatory; indeed, every critic of every degree he seemed to look upon as his natural enemy. We make this remark because the sentiment is very generally shared by the artists of our day; hence the little intercourse that subsists between painters and men of letters; and hence an evil that works greatly to the prejudice of both. For many years, indeed, since the days of "Sir Joshua," this evil has been continually increasing. Neither West nor Lawrence, and less than either, Eastlake, has given a thought to the advantage which Art may derive from association with literature, or how much the professors of both might profit from a somewhat close and continual intercourse. The subject is one with which we may be called upon to deal at length hereafter.

* A MEMOIR OF THOMAS UWINS, R.A., late Keeper of the Royal Galleries and the National Gallery, Librarian of the Royal Academy, &c. &c. By Mrs. UWINS. 2 vols. Published by Longman & Co., London.