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DONARIA
OF
MEDICAL INTEREST.

BY DR. LUIGI SAMBON,
Rome.

LONDON :

PRINTED AT THE OFFICE OF THE BRITISH MEDICAL ASSOCIATION,
429, STRAND, W.C.

1895.

Bibliothèque Maison de l'Orient



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DONARIA OF MEDICAL INTEREST.

BY DR. LUIGI SAMBON, ROME.

THE custom of making offerings to the gods is found among the ancients from the earliest times of which we have any record. Such gifts were called *donaria* by the Romans, and were generally offered as tokens of gratitude but often they were intended to induce the deity to grant some favour.

Anything could be offered to the gods—land, buildings, cattle, fruit, war implements, tools of trade, jewellery, cast-off clothes. Repairs of the temple and embellishments of the sanctuary by paintings and decorations were considered most suitable donaria. Some donaria, such as materials for the religious ceremonies, statues of gods and money were given indifferently to all deities; other offerings were given only to some special divinity; thus the temple of Artemis Brauronia was filled with women's clothing.

In the temples of healing gods were gathered mostly instruments of surgery, pharmaceutical appliances, painted tablets representing miraculous healings, and great numbers of images of various parts of the human frame shaped in metal, stone and terra-cotta.

Some of these temples were magnificent buildings richly decorated, but often they were mere shrines at the source of some hot spring or mineral water where great numbers of patients flocked from far and near. Here they would bathe or else only drink the water. The priests regulated the use of the waters and prescribed further for each patient. The patient always threw an offering into the water before leaving, a bronze astragalus, a silver cup, a coin or some terra-cotta model of a limb, which was left bubbling in the water while the sufferer, dragged himself off muttering a prayer. A representation of a woman throwing her donarium into a tank of healing water appears in a painting on a Greek vase in the Louvre. More often the donaria were hung about the walls of the temple and clustered round the statues of the gods, as we learn from the inventories engraved on marble which have been found among the ruins of the old temples.

When the temples or the tanks of healing waters were overcrowded with valueless donaria, the priests used to remove them to grottoes or wells dug in the neighbourhood or they buried them enclosed in large wooden boxes or simply in deep furrows from which they are now occasionally disinterred.

Magnificent offerings such as cups of valuable metal with votive inscriptions have occasionally been found. The old temples contained many objects of gold and silver, but few remain because donaria of precious metals were, after a time, melted into ingots, and disposed of by the priests according to special regulations peculiar to each temple.

Amongst the votive deposits are nearly always found coins of every epoch and place, from the shapeless pieces of bronze called *æs rude* which was the primitive money of Italy and preceded the coined metal or *æs signatum*, to coins of the empire. Such coins give most interesting information as to the approximate dates of the period in which the sanctuary where they are found was frequented, and perhaps of how far its fame was spread. The coins were sometimes attached by means of wax to the hands of the images worshipped. Many bear countermarks very likely to prevent their returning into use, others *graffito* inscriptions such as "sacred to Apollo."



Fig. 1.—Feeding bottle.

Surgical instruments were offered by patients or surgeons often as a thanksgiving for a successful operation. Erostratus offered to Apollo in the temple of Delphus a forceps of lead to show how little he approved of the extraction of teeth which were not loose enough to be pulled out by the fingers. Among the many surgical instruments and appliances found in all parts of the Roman Empire more than a hundred different ones are known, which are certainly not inferior to those of the present day. The old Roman instruments were entirely of metal, mostly of bronze and iron; some were beautifully shaped and richly inlaid with silver.

Large quantities of pottery are usually found, mostly broken into fragments; there are cups and vessels of every form and description, but generally of the coarsest kind. Even this pottery can give a certain idea of the epoch at which the sanctuary was frequented. Sometimes the cups are

pierced with a hole by which they were hung up as a votive offering after they had been used, but generally they were thrown into the water. We are told gravely in a Greek inscription from Epidauros of a boy who had been carrying his master's favourite cup, and had gone to sleep by the roadside, to wake up and find the cup broken in pieces. He was in despair, when a passer-by remarked that only Asclepios, the healing god of Epidauros, could mend the crock. This the god is recorded to have done, to the delight not only of the boy but also of his master, who, when he heard of the incident presented the cup to the temple.

Among the pottery I have found invalid medicine cups and feeding bottles for infants (*gutti*). Many of these are ingeniously fashioned in the shape of the female breast, some offer curious shapes of animals. I have found some which have a woman suckling her infant worked in relief on their surface evidently indicating their use, but what positively confirms these *gutti* to be feeding bottles is that

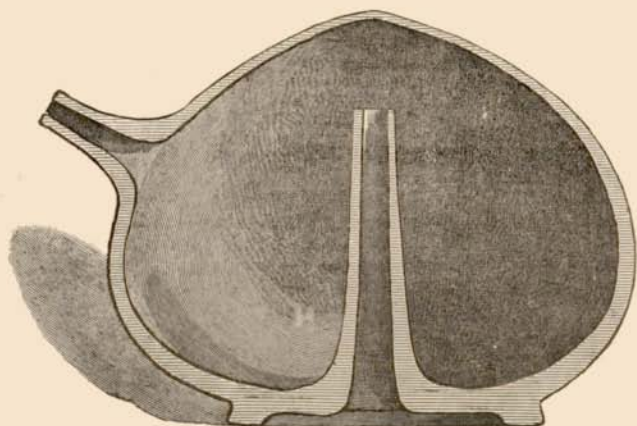


Fig 2.—Section to show construction of feeding bottle.

they have been found by Mr. E. Toulouze, Dr. Allaire and myself in the tombs of children who died during the period of lactation. Here they had been deposited by mothers sometimes together with a rattling toy, as the most suitable furniture for the tiny grave. They replaced the dishes of various foods which were placed in the tombs of grown up people.

These old feeding bottles are so constructed that no flies or dust can reach their contents. The milk was generally introduced by inverting the bottle and pouring it through an open tube ascending within from the middle of the base almost to the apex, which also prevented its escape when the bottle was placed again on its base. The child obtained nourishment by sucking through a spout on the side of the article. On the opposite side is a small round handle. In my collection is a tiny feeding bottle of lead which had probably been made to be offered as a thanksgiving for successful feeding by artificial means.

Amongst the pottery of votive offering are often found vessels of very minute dimensions, which certainly could not have been of any practical use, some being hardly an inch high; this toy-like pottery had evidently been brought



Fig. 3.—Ear from Palestrina.

to the shrine as a symbolical offering, instead of the usual vessels which now filled up the tanks. A great number were found in Civit  Lavinia by Lord Savile; they have also been found in tombs.



Fig. 4.—Eye found at Vet.

The most interesting and least known donaria are certainly those representing limbs and viscera of the human body or images of patients showing evident marks of disease upon them. There is hardly any part of the body which has not been shaped out of the clay. It was a common custom amongst patients to offer an image of a limb or organ which was diseased.

Innumerable are the heads found in each votive deposit. They are of every epoch and size; some few are of bearded men, a large number of youths and children, but the great majority is of women of every age. Mostly the whole head is represented, but sometimes only one side of it is shaped,



Fig. 5.—Dissected trunk found near Rome.

the other being replaced by a flat surface. The most archaic are solid, the later ones are hollow and generally have a square or round hole behind by which they might be suspended. All these heads of different epochs from the most archaic to those of the latest periods offer an interesting

study on the hairdressing and adornment. The hairdressing in return giving a certain information as to the period and locality to which they belong. In a general way those wearing diadems belong to the earliest period, the others veiled in many ways to the latest. Their age varies from the fifth century B.C. to the second A.D.

These heads or half heads were most commonly consecrated as representing the part of the body affected by disease, but many represented the grateful patient himself, and some, which are modelled by the hand instead of being cast, are perhaps portraits of the same. Of the many hundreds I have examined none present signs of disease; only one head modelled which was found in a votive deposit consecrated to Minerva Medica in Rome, suggests alopecia areata, but the locks which are missing, chiefly at the back of the head, may have fallen off accidentally, the tresses or ringlets

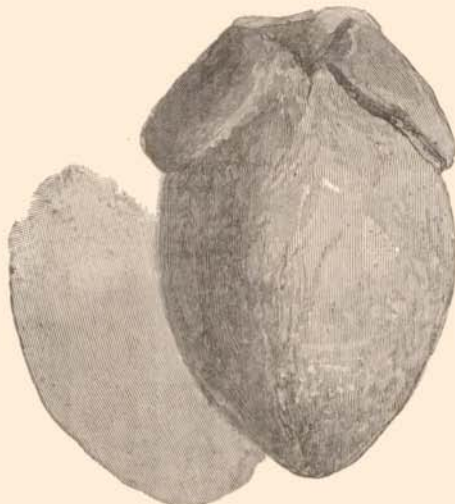


Fig 6—Heart.

having, as was not infrequent, been separately modelled, and attached afterwards to the head. None of these heads offer any special attributes which might prove them to be images of gods. Often only a part of the face or head is represented, generally the fronto-labial region, on a square or rounded plaque.

Ears and eyes are found singly in large numbers and vary immensely in shape and size. In the National Museum of Rome are two terra-cottas representing the labial region. In my own collection is a very neat representation of a tongue with its ligaments (glosso-epiglott. med. and glosso-epiglott. later.), on each side of its base are two rounded prominences, probably representing the tonsils.

Numerous trunks of both sexes and all sizes are found. In many of them we observe large openings, either limited to the chest, or extending to the pubes and exposing the internal organs. The openings present the *technique* of our days. Some-

times only the pelvis is represented; one in the Florence Museum shows the uterus through an abdominal section. Often the internal organs of one or both cavities are represented on distinct plaques. The anatomy of these sections is generally very poor, but the workmanship varies immensely from one terra-cotta to another, and while some of them offer a totally mistaken and conventional form or grouping, others are formed with extraordinary skill. These terra-cottas had no aim at scientific accuracy; they were modelled in vast quantities by any wayside potter and sold for a trifling sum on the road to the temples, mostly to ignorant peasants. A careful study of human anatomy was therefore not needed and the majority of potters who shaped these donaria probably contented themselves with a short examination of the butcher's shop.

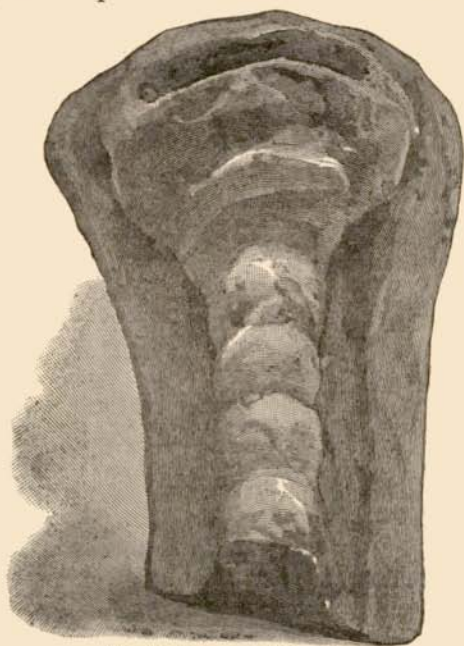


Fig. 7.—Larynx and Trachea.

Very different must have been the anatomical knowledge of the medical men of those days, because we know that human anatomy was eagerly studied on the bodies of prisoners and slaves. Celsus, in his work which is the masterpiece of Roman medical literature, repeatedly emphasises that there can be no rational medicine without a complete knowledge of human anatomy. Erasistratus had dissected the human body at Alexandria and Herophilus had even vivisected criminals under sentence of death.

From the vast quantities of anatomical terra-cottas bought and dedicated by patients of all classes, we can surmise that gross anatomy was thus far better known to the general public than it is at the present day.

Arms, legs, hands and feet are found very abundantly and sometimes single fingers. The hands are generally represented as opened in the attitude of worship. A left hand in Dr. Charles's collection in Rome presents nodulated tumours over the first phalanx of the ring and little fingers; another one in the same collection has two fingers flexed at the metacarpo-phalangeal joint, probably the result of broken extensor tendons. One in my collection offers over-extended fingers as occurs from injury of one of the main nerves of the arm supplying the flexors and skin.



Fig. 8.—Uterus after delivery

The feet are sometimes clad in sandals, the sole being shaped in the clay and the straps only painted. A foot in Professor Charles's collection stands on a very high sole probably to improve the gait in ankylosis.

Hearts (Fig. 6) with their auricles very prominently shaped, kidneys, uteri, ovaries and coils of intestines are often found singly. In the National Museum of Rome is a rough model of the larynx and trachea (Fig. 7).

Female breasts are extremely common.

Male genitals are also found in great number, always with long foreskin completely covering the glans penis; many of these terra-cottas suggest phimosis from venereal disease.

Reproductions of the vulva are often found, sometimes offering the characteristics of childhood, at other times those of puberty.

Uteri are found in great numbers, some generally of the size of the normal viscus with a smooth surface; others are



Fig. 9.—Ovaro-salpingitis with adhesions.

larger in size and offer a wrinkled surface and patulous cervix as after delivery (Fig. 8). They were offered as propitiatory gifts to ensure an easy labour or given by way of thanksgiving after safe delivery, or after recovery from difficult labour or disease.

Some of these uteri have on one side the appendages attached (Fig. 9). I have found that the left ovary and tube is far more commonly represented, proving even in those days a marked prevalence of disease of the appendages of the left side.

Some uteri present a double opening at the os (Fig. 10); they are undoubtedly representations of uteri septi. I have found no other malformation of the womb represented by these terra-cottas, such as uterus bicornis, although they are, comparatively far more frequent. But this is not surprising because uterus septus is easily diagnosed during life by a simple manual examination if the septum extends as far as the os, while other malformations are difficult to detect except in *post-mortem* examinations. As the terra-cottas representing uteri septi are rather frequent although the malformation is rare, I believe that the idea of twin pregnancy was closely connected with it, and thus the double opening may be considered, in most cases, as a conventional form indicating it.



Fig. 10.—Uterus septus.

Amongst some terra-cottas sent to me from Capua, I found two perfect models of the placenta; they probably came from the Temple of Maternity which was discovered there.

In a heap of broken terra-cottas and marble fragments piled outside the new museum of the "Orto Botanico" in Rome, I found a most interesting votive terra-cotta. It represents an elbow, on the extensor aspect of which are numerous thick circular patches generally of the size of a three-penny bit. This elbow is not a fragment of a statue, but a donarium of the arm from which the hand alone has been broken off. The patient having offered the representation of an arm, it is natural to believe that that limb only was affected by the disease. The patches are limited to the point of the elbow and to the immediate neighbourhood. If diagnosis of skin diseases is often difficult on the living subject, it must seem almost impossible on a rough terra-cotta made

for no scientific purpose by a simple potter many centuries ago, but curiously enough the diagnosis in our case is relatively easy, the donarium offering apparent signs of psoriasis. The only doubt might arise from psoriasiform syphilides and the little difference in size of the various nodules would be in favour of a manifestation of this disease, which seems to have been known to the Romans under the name of *morbus campanus*, but syphilides appear mostly on the flexor surface of the limbs which in our terra-cotta is entirely free from the disease. Psoriasis and other similar diseases were known to the ancients by the name of *lepra*, which meant roughness, and must not be confounded with leprosy.



Fig. 11.—Psoriasis of elbow (Rome).

Together with these images of anatomical parts there have nearly always been found numerous statuettes greatly varied in subject and treatment, many presenting points of medical interest on close observation. Similar statuettes have also been found apart from votive offerings, often in tombs and not only in Italy and Sicily, but also in Greece, France, Spain, Asia Minor and Africa. Those of Tanagra in Greece have attracted most attention on account of their great beauty.

Much difficulty has hitherto been experienced by archaeologists in understanding the subject of many of these

statuettes and their use. Some have considered them all as connected with funeral rites, although few offer subjects that can be related to the grave. Many of those found in tombs had been placed there by the relatives simply as things to which the deceased had been most attached during life. Other writers believe them to have been domestic ornaments or household gods which were kept apart in small shrines such as the *sacrarium* represented at Pompeii. Archæologists have frequently erred in believing all the figures to be images of gods and goddesses, and wishing to find a mythological explanation for each group. A certain number are undoubtedly representations of deities, but I believe the majority to be donaria representing patients or devotees in the act of adoration or bringing gifts to the gods. The gift most acceptable to each god being generally also an attribute or symbol of the same has often led to the error of mistaking the representation of the worshipper offering donaria for the image of the deity. Some were undoubtedly toys. I have no doubt that the explanation given here of many terra-cotta statuettes instead of a far-fetched mythological interpretation will make their classification far more easy. Many statuettes which have been classed by archæologists among grotesque figures are representations of

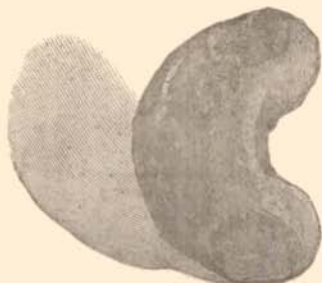


Fig. 12.—A kidney (Capua).

patients bearing signs of deformity from disease most admirably depicted. Obesity, dropsy, rickets and other diseases are clearly represented. Some statuettes represent patients unclothing the part of the body diseased so as to attract the attention of the deity to their infirmity. They remind us of the numerous beggars exposing their sores and deformities to the passers-by who may be seen even now in many towns of Italy. Such figures represented as uncovering a part of their body have generally been mistaken for obscene representations.

A large and most interesting series of terra-cotta figures is connected with childbirth and lactation. Many are the images of women in labour. Some are in the kneeling position, a favourite one in the first stage of labour, still common in many parts of Italy. This position was naturally and instinctively changed to the knee-elbow or to the genu-pectoral position at the time of expulsion. A marble votive bas-relief of my collection found near Rome shows a woman just delivered in the knee-elbow position. The kneeling figures are also represented with both hands on the abdomen performing a kind of uterine expression. In this same position

were represented the Nixi, Roman deities to which petitions were made for a rapid and safe delivery.

Other parturient women are represented in the sitting position, sometimes on a kind of obstetrical chair. In the Louvre Museum in Paris is a terra-cotta group of a parturient woman in the sitting position leaning against another woman who holds her from behind, while the obstetrix or midwife in front of her has received the new born child. A similar group in marble found at Cyprus in 1871 by General Cesnola is now in the New York Museum.



Fig. 13.—Parturient woman in the kneeling position, perhaps a Nixi. (Oppenheimer Collection.)

A frequent subject in old Roman sculpture is the birth of Bacchus by Cæsarean section from the corpse of Semele. This operation was often performed *post mortem matris*. It is said that Julius Cæsar and Scipio Africanus were born thus.

Very numerous are the figures referring to disorders of lactation or diseases of the breasts, from the very old rigid mages pressing both mammæ with their hands to the

graceful, seated figures of later art sweetly smiling on their suckling infant. Some are represented supporting with their hands an inflamed breast, others holding fissured and ulcerated nipples. A few hold a vessel beneath one breast evidently affected by galactorrhoea. A terra-cotta in my collection represents a young woman with an enormous left breast due to hypertrophy or to some new growth. Some women hold a child on one arm, while with the other hand they point to the breast glands imploring lactation.

There are groups of figures representing a husband and wife sitting side by side, the woman generally presenting evident signs of pregnancy. Very often a child is seated between them or in the mother's lap. They represent grate-



Fig. 14—Husband and wife offering thanks for offspring. Group found in the Tiber by the *Insula Sacra*.

ful people offering a thanksgiving for offspring after a long period of sterility, although they have again and again been described as Demeter with the infant Bacchus. Women raising the right hand opened in the act of adoration and holding in the other hand a pomegranate with bursting rind are not images of Venus but barren women imploring pregnancy.

Children with arms and legs tightly bound in swaddling clothes, as is still the custom in Italy, are of common occurrence. They were frequent offerings of anxious mothers.

Children represented dragging themselves along in a crouched position with contracted and atrophied legs, are certainly cases of infantile paralysis or sometimes pronounced lordosis, cases of rickets with powerless and wasted lower limbs.

Figures of hermaphrodites have been found amongst the votive terra-cottas; sometimes a bearded figure in female

clothes and adornments with rounded forms and swollen breasts; at other times figures with female features and male genitals. I have in my collection a terra-cotta of a tall graceful woman disarranging her clothes to show a clitoris enormously hypertrophied.

A large number of figures of both sexes, generally standing and entirely wrapt up in clothing, may, possibly, represent fever-stricken patients. Malaria, which prevailed in many places with far greater virulence in summer and autumn, was a dreaded disease as is proved by the many altars erected to Febris and Mefitis. Febris had three temples in Rome, and only a few years ago the goddess of fever was still worshipped under the name of Madonna delle Febri at the foot of the Vatican hill in a place called the Valley of Hell.

Numerous figures of animals are found amongst the other votive terra-cottas, mostly domestic animals. Horses and oxen are very common, but pigs are by far the most numerous. Pigs are often ornamented all over by geometrical designs or studded with bits of coloured glass. Some are represented with children on their backs. These figures of animals may in some cases have been symbolical offerings of animals sacrificed but they were generally brought to the shrine for disease, especially at the time of cattle plagues. The single heads, feet, or internal organs of animals which are often found confirm this view. The children carried on the back of pigs may be connected with the worship of the goddess Carna, a very ancient goddess who strengthened the heart and entrails. The pig was sacred to her, and on the first of June it was sacrificed, when those who ate of the lard believed themselves to be preserved from all intestinal disease. Children suffering from wasting diseases were taken to the temple of Carna and fed upon raw pork as directed by the priests of the goddess. A bronze statuette found in Naples represents a woman carrying an infant on her left arm and holding with her right hand a sucking pig by its hind legs. Brutus the first consul erected a temple to this goddess on the Celian hill.

All these terra-cottas were painted in various colours, mostly red and blue, as exemplified by the remnants of pigmentation still visible on some of them. The eyes and hair of the statuettes were generally black; yellow was not a common colour and green and gold were rarely used. Before applying colours the terra-cottas were dipped in a bath of lime and many which have lost the colouring have retained this white coating. Some few were covered with a glaze which produces the appearance of an enamelled surface. The colour having disappeared from these terra-cottas has no doubt deprived us of much additional information.

Except the earliest examples, which are rudely modelled with the hand, these statuettes were made from clay moulds, many specimens of which still exist. The mould was only used for the front of the figure, the back of it being, as a rule, merely a plain piece of clay shaped by the hand. If any design was desired at the back also, it was invariably executed by the hand. Sometimes the head, the arms, and other accessories were added afterwards; thus two casts from the same mould differed considerably.

The terra cottas found in the same votive deposit often belong to very different periods and localities. The most archaic types are sometimes found with those of the latest and

purest art. To a certain extent they can be distinguished by the different quality of clay, the different firing, and by peculiarities of treatment and colouring. But great caution is necessary in determining their age or locality on account of the long continued and faithful copying of the old hieratic idols, the persistency in use of old moulds, the exchange of moulds, the migration of workmen, and the local reproduction of foreign images, often by casts.

These terra-cottas pressed out of the clay in vast numbers were sold together with other donaria in the neighbourhood of the temples, as in our days the scapulars and images of saints can be purchased at the doors of churches.

In some places, similar images have been found made of tufo. Marble donaria are not so common; two fine specimens are in the Vatican museum, one of these represents the chest of a child dissected in the middle line; the organs thus exhibited are not free from mistakes. The other represents the thoracic skeleton of an adult; it has thirteen ribs on each side. Both these marbles were found in the Tiber by the *Insula Sacra* (Island of S. Bartolomeo) where a temple had been erected to *Æsculapius*. This temple had the form of a ship in memory of the famous embassy which had been sent to *Epidaurus* to fetch the god of medicine, this being ordered by the Sybilline oracle during a great plague which devastated Rome in the year B. C. 291.

Bronze donaria are more numerous; they represent, like the terra-cottas, figures of gods, patients offering gifts, domestic animals, or various parts of the body. The figures, which generally vary in size from two or three to twenty inches, were generally fixed by means of lead to small bases of tufo, marble or *travertino*, some of which bear votive inscriptions. These pedestals were square or conical in shape and always scooped out at the top. Some of the images had lead or bronze pedestals or no base whatever, and were made to be thrown into the water. Amongst the bronze donaria of my collection is a model of the scalp with neatly plaited hair, a votive offering, probably to *Minerva Medica*, for recovery from loss of hair. At *Falterona* many interesting pathological bronzes were found. Bronze figures of leeches are of common occurrence.

In the temples were also placed votive tablets of wood or terra-cotta on which were paintings of miraculous healings and portraits of divinities or donors; they were also hung about the walls with the other offerings or on the sacred trees. All things thus suspended were called *oscilla*.

A curious sight must have been the old temples crowded with donaria of all kinds, which filled up each corner, covered the walls, hung from the ceilings, clustered round the shapeless *zoana* or the beautiful statues of gods, like swarms of bees. The deep red terra-cotta limbs and blue coated statuettes contrasted with the white bas-reliefs of marble, while bright donaria of bronze and gilded offerings shone among the gorgeously coloured tablets. All these offerings told one tale of human suffering and divine charity. Together with the inscriptions which covered pillars and walls they recorded dreadful diseases and wonderful cures. Every day new donaria were collected, new miracles registered. The temples became interesting museums, great schools of medicine and many eminent men, amongst whom was *Hippocrates*, learnt in them the principles of medical

science which were chiselled on walls and pillars as on the leaves of a great book, profusely illustrated by the never ending rich donaria. At an early date a regular profession of medicine sprang up and attained considerable importance. All specialities were soon represented as largely as in our modern days, and wonderful operations were successfully performed, but the old temples, strongly founded on faith, were always crowded.

Sir William Hamilton published in 1780 a description of the feast of SS. Cosmas and Damian in Isernia (near Naples), which continued unchanged to only a few years ago. I give here an abstract of some parts which bear closely on our study:

"In Isernia, at the annual fair which is held on September 27th, exvoti of wax representing different parts of the body, but especially the male parts of generation, are publicly offered for sale. The devout distributors of these votive offerings carry a basket full of them in one hand, and hold a plate in the other to receive the money, crying aloud 'SS. Cosmo e Damiano.' If you ask the price of one, the answer is 'The more you give the more's the merit.' In the vestibule are two tables, at each of which one of the canons of the church presides, crying out this 'Here masses and litanies are received,' and the other 'Here the votive offerings are received.' The price of a mass is 15 Neapolitan grani (5 pence), and of a litany 5 grani (about 2 pence). On each table is a large basin for the reception of the different offerings. The votive offerings are chiefly presented by the female sex.

* * * * *

"At the great altar in the church, another of its canons attends to give the holy unction with the oil of S. Cosmo, which is prepared by the same receipt as that of the Roman ritual with the addition only of the prayer of the holy martyrs SS. Cosmo and Damiano. Those who have an infirmity in any of their members present themselves at the great altar and uncover the member affected, the priest anoints it, saying, 'Per intercessionem beati Cosmi, liberet te ab omni malo.'"

In nearly all the churches of Italy and often at the small shrines in the streets are numerous votive offerings in wax, silver and wood many of which have only been recently consecrated, but the modern donaria are of no interest compared with those of the ancients.