

Section of History of Medicine.

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On a Romano-British Castration Clamp used in the Rites of Cybele.

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IN the British Museum¹ is a remarkable and unique bronze instrument, found in the bed of the River Thames, near London Bridge, in 1840.² Its use has been obscure since its discovery. A solution of the problem is here attempted.

§ 1.—DESCRIPTION OF THE INSTRUMENT.

It consisted of two shanks, $11\frac{1}{2}$ in. (28·75 cm.) long, joined at their distal ends by a hinge-joint, like a pair of nutcrackers. The shanks are rectangular in section and present four surfaces; the anterior and posterior surfaces are quite plain, about $\frac{1}{2}$ in. (12·5 mm.) wide. The external and internal surfaces are about $\frac{3}{4}$ in. (6·25 mm.) wide, presenting on the external surfaces busts of deities and heads of animals, modelled in the round and projecting boldly; there are also some other structural details, described below. Each shank consists of the following parts:—

(a) *Half-hinge*.—This is now wanting. It was a separate piece of metal, united to the shank by a tenon-and-mortise joint and connected by means of a movable rivet-joint, with the corresponding half-hinge of the other shank.

(b) *Half-oval*.—This has its convexity directed outwards and extends from the half-hinge to the body of the shank. When the instrument is closed it forms, with that of the opposite shank, an elongated oval. On the external surface, just outside the half-hinge, is the bust of a deity facing anteriorly, but set obliquely so as not to interfere with the opening of the instrument. Both these busts are broken and bruised on their medial aspects. Immediately external to the bust and in contact with it, is the bust of a horse facing externally. At the junction with the body, on the anterior surface, are two parallel grooves set obliquely.

(c) *Body*.—This extends from the half-oval to the handle. There is a very slight concavity of the internal surfaces of the two bodies in both this specimen and that at Basel; this would prevent close apposition of the blades except at the upper and lower ends. The internal surface is deeply serrated throughout its whole length. This serrated area is about 6 in. (15 cm.) long, and the serrations, thirty-six in number, extend from the anterior to the posterior surface, but cannot interlock on closure of the instrument. If the substance to be compressed were thicker at its middle, this arrangement would enable even pressure to be maintained over the whole compressed area. The external surface presents, distally, four busts of deities in series and proximally, the head of a bull near the junction of the body and the handle; these all face externally. The deities represent the planetary deities presiding

¹ Room of Roman Britain. (Case D.) C. Roach Smith Collection.

² C. Roach Smith, "Bronze Forceps found in the bed of the Thames," *Archaeologia*, xxx, p. 548, pl. xxiv. *Collectanea Antiqua*, 1852, ii, p. 60. *Cat. Mus. London Antiq.*, 1854, pp. 12, 13, No. 29. *Illustrations of Roman London*, 1859, p. 72, pl. xxi. L. Lersch, "Planetarisches," *Jahrbücher des Vereins von Alterthumsfreunden im Rheinlande*, Bonn, 1846, viii, p. 146. K. Dilthey, *Ibid.*, liii, p. 7. Haug, "Die Wochengöttersteine," *Westdeutsche Zeitschrift für Geschichte und Kunst*, Trier, 1890, ix, p. 44, No. 31. T. Wright, *The Celt, the Roman and the Saxon*, 4th ed., 1885, p. 323. Franz Cumont, *Textes et Monuments Figurés, Les Mystères de Mithra*, 1896, ii, p. 432, No. 317. H. B. Walters, *Victoria County History, London*, 1909, i, p. 110, fig. 47; and reference to Soc. Antiq., MS. Min. xxxviii, p. 304. F. Haverfield, "Roman London," *Journ. Roman Studies*, 1911, i, p. 167, pl. xxi. Reginald A. Smith, *British Museum, Guide Antiq. Roman Britain*, 1922, pp. 86, 87, 21, pl. vi. B. C. A. Windle, *The Romans in Britain*, 1923, p. 190. Gordon Home, *Roman London*, 1926, p. 88, figured on p. 89.

over the eight days of the Roman week. The body of the right shank has been broken at its proximal end and neatly mended, by means of a mortised piece of bronze, in Roman times.

(d) *Handle*.—This is undecorated except at the proximal extremity, which terminates in a lion's head. The head forms an irregularly conical knob. The base of the cone projects on all surfaces except the inner, where it is smooth and flattened to permit closure of the instrument. The noses of the lions, however, do not come into contact and there is no grooving of the opposed flat surfaces, as might be expected had the instrument been intended for a forceps. The anterior and posterior surfaces are reduced in width to about $\frac{1}{4}$ in. (6.25 mm.), at the expense of the inner portion of the handle, and the angles between them and the external surface are chamfered. When the instrument is closed there is therefore a gap between the handles of the two shanks, designed to facilitate the grasp of the hand. About half-way between the lion's head and the body of the shank is an oblong perforation with rectangular section. This perforation was probably intended for a slightly curved connecting-bar passing between the handles. The margins of the perforations are worn from use. The perforation in an already narrowed handle was a constructional defect and a source of weakness, and the right shank is bent outwards as a result.

§ 2.—FUNCTION OF THE INSTRUMENT.

Mr. C. Roach Smith described it as of "forceps type," and stated that "the manner in which the forceps was used is not very clearly seen." He has been followed by others, who have described it as a "Zange" (Lersch, Dilthey, Haug) or "pince" (Cumont). It cannot, however, have been a forceps, as the front of the lions' heads do not come into contact, and the construction of the terminal knobs makes the instrument unsuitable for grasping any object. The projecting figures would also prevent it being grasped as a forceps or pair of tongs. Mr. Smith suggested alternatively that it might have been used for cracking or crushing objects, without indicating the nature of the objects to be compressed. The majority of the writers (Wright, Cumont, Walters, Haverfield, Reginald A. Smith, Windle) who have dealt with this instrument admit that its use is unexplained. It was formerly labelled in the British Museum as "A Pair of Brays for the Nose of a Victim."

Herr R. F. Burkhardt, Director of the Historisches Museum at Basel, writes that the somewhat similar instrument from Augst is "believed to be a nut-breaker or nut-cracker." Mr. Gordon Home calls the London example "nut-crackers." Professor Haverfield referred to it as "crackers." However, both instruments are quite unlike nut-crackers, with broad crushing surfaces, furnished with roughnesses to prevent the nut slipping, and with these surfaces placed quite near the hinge to obtain greater leverage. The Romans were quite familiar with the lever, and they would not ignore elementary mechanical principles in the construction of nut-crackers.

What, then, can have been the function of this instrument? It shows evidence of hard use, as the right shank was broken and mended in Roman times, and the margins of the holes for the connecting-bar are worn. Is it an instrument of torture? The old label in the British Museum suggests this. Professor Haverfield stated that it was "certainly not . . . a pair of brays for the nose of a victim." It seems hardly likely that so much elaboration and symbolism would be expended on a mere instrument of torture.

In its essential features it is not unlike certain clamps used in modern surgical practice (*e.g.*, in operations on the stomach and intestines) for arresting hæmorrhage, grasping soft tissues and maintaining them in apposition, where no great crushing force is required. This instrument had probably the same function in Roman times. The mechanism suggested for the connecting-bar is simple, and in use at the present time, but there are many other methods that might have been adopted to obtain the same result.

The cumbersome character and elaborate decoration are, however, arguments against its use as an ordinary surgical instrument. Surgical instruments in Roman

times were rarely decorated. The majority have only simple mouldings or are quite plain, permitting them to be cleansed easily.¹

Mr. C. R. Smith thought it "connected with the religious worship of the Romans," basing his views on the presence of the heads of deities. M. Cumont, guided in his opinion by the position of Cybele at the summit, said that it was "plus probable que . . . cette pince été en usage dans un temple de la Grande Mère." Mr. H. B. Walters emphasized its religious or sacrificial character, and stated that "the two busts on the top, probably Cybele and Attis, refer to the worship of the Phrygian Magna Mater."

An instrument so elaborate and costly was no makeshift. It was designed thoughtfully for the purpose in view. Evidence of prolonged use is seen in the repaired fracture, and signs of wear and tear. Everything suggests that the design was one that had proved satisfactory to the users.

It is therefore a clamp for controlling hæmorrhage and maintaining apposition of severed edges in soft tissues. The length of the serrated surfaces shows that the area of tissue to be controlled was an elongated one. The oval hole at the distal end must have had its use, as it adds nothing to the beauty of the instrument as regards its lines or to its efficiency as a clamp. As we shall find, it was a carefully thought out part of the design.

The only situation which meets all these requirements in that part of the human body with which Roman surgery dealt is the region of the male external genital organs. The suggestion here advanced is that this instrument is a clamp used in the operation of castration in the male, where the penis is excluded from operative procedure, i.e., the operation undergone by the "Spadones" in Roman times. In addition, the sacred emblems show that this castration was a part of some religious rite.

§ 3.—DESCRIPTION OF THE OPERATION.

The operation of castration can be performed by one of three principal methods.

(1) The testicles are alone removed by two incisions in the scrotum, one for each testicle. This method was rarely used by the ancients in operations on man.

(2) The whole of the external genital organs are removed. This method was adopted in the case of the "Castrati" in Roman times, and is that favoured in the Orient and Africa. It was attended by a far greater mortality, mainly from hæmorrhage, but also from septic poisoning and complications resulting from subsequent urethral stenosis.

(3) The penis is left intact, but the testicles and *fundus scroti* are removed, leaving the upper and back part of the scrotum. This method was adopted in the case of the "Spadones" in Roman times. It was the more usual, as being simpler and attended by much smaller mortality. It was doubtless the operation for which this instrument was used.

The operation was probably performed thus:—

The subject having been placed on his back with the thighs widely abducted, the clamp was opened, the penis passed through the oval ring, and the testes and *fundus scroti* drawn forwards between the serrated surfaces. The clamp was then firmly closed and the closure maintained by revolving the nut on the connecting bar until it touched the handle. By the presence of the oval ring the penis was fully protected from pressure and kept out of the way of the operator, and a larger amount of the scrotum with its contents was firmly clamped; complete control of all the blood-vessels with perfect adjustment of the severed edges of the skin of the scrotum was secured at the same time. The testicles and fundus of the scrotum in front of the clamp were then removed by a rapid stroke with a knife. The blood-vessels of the stumps of the right and left testicles were then perhaps closed by the application of the actual cautery. After this possibly a few sutures of flax were passed by means of a bronze needle.

The operation could be performed very rapidly. The danger was mainly from hæmorrhage; difficulty and delay were superadded by the tendency of the cut edges

¹ J. S. Milne, *Surgical Instruments in Greek and Roman Times*, 1907.

of the scrotum to retract and roll in, and of the stumps of the severed spermatic cords with their bleeding vessels to retract out of reach. It will be noticed how admirably these difficulties have been appreciated and met in the design of this instrument.

§ 4.—THE INSTRUMENT IN THE HISTORISCHES MUSEUM AT BASEL (No. 1907, 1505).

This was found at Augst, near Basel, in 1830. It is of bronze, 20 cm. ($7\frac{7}{8}$ in.) long. The shank consists of the same essential parts, i.e., half-hinge, a fenestrated portion, body and handle. There are, however, some important differences, e.g., the half-hinge is not a separate piece of metal, mortised to the next portion, but continuous with it; again, the fenestrated portion is not a half-oval, but a nearly circular foramen, partly formed by a prolongation downwards of the half-hinge and partly by a curving upwards of the first tooth of the serrated surface, so that when the instrument is closed a dumb-bell shaped aperture is formed. The body has sixteen large serrations: the highest is curved upwards, the lowest two converge, curving towards each other to form a similar, though smaller, incompletely circular foramen, situated at the junction of the body and the handle. This serrated area is about 8.5 cm. ($3\frac{3}{8}$ in.) long. The handle has no perforation and terminates in a knob. The knob is joined to the handle by a circular disc with an encircling groove: it is faceted, consisting of two four-sided pyramids joined at their bases, and terminates in another smaller disc surmounted by a similar but much smaller knob. The whole instrument is smaller. It is quite plain. The contour is angular, instead of rounded, opposite the fenestrated portion, from which point the body curves downward to join the handle.

The method of using the instrument is also different. The clamp has no aperture for the penis, which was probably held aside by an assistant while the clamp was applied to the scrotum. The use of the two pairs of foramina is uncertain. They were perhaps intended to assist in steadying the clamp and maintaining its closure during the operation by means of cords. The probable method of application of the cords is sufficiently indicated in the diagram.

It was therefore a simpler, cheaper and more primitive, though quite efficient instrument. It may have been a portable clamp, carried by one of the mendicant missionaries of Attis (*Metragyrtae* or *Cybebi*) on his journey through the Alpine passes to the Gallic or Germanic tribes.¹

§ 5.—OCCASIONS FOR THE OPERATION.

The operation of castration was of Oriental origin. In ancient times, apart from disease, it appears to have been performed for a variety of reasons²; e.g.—

(1) *Martial reasons*.—As a symbol of subjection to a superior power it was common in Ancient Egypt and the Near East, but appears to have had no place among Roman customs.

(2) *Penal reasons*.—It was performed under the civil law in Rome mainly for sexual offences, such as adultery, rape and the performance of castration, when the latter had been prohibited, on the principle of the law of retaliation.

(3) *Provision of Choristers*.—The early performance of the operation arrested the onset of puberty and its accompanying changes in the larynx. The voice retained the character of that of childhood.

(4) *Provision of "Pathici" or "Paedicones"*.—These were employed as sexual inverters by the wealthy Romans and ministered to the vices of the wealthy Roman women. This class was composed mainly of "Spadones."

(5) *Provision of "Castrati"*.—These were used as attendants in the women's quarters in the houses of the wealthy.

¹ I am much indebted to the kindness of Herren Burekhardt and Major, of the Historisches Museum, at Basel, for supplying me with information and a specially-taken photograph of this hitherto unpublished specimen and also for their courtesy in allowing me to include a description and illustration in this paper.

² Richard Millant, *Les Eunukes*, Paris, 1908.

(6) *Provision of "Spadones."*—These were very largely employed in various capacities in the household and public offices mainly on account of their trustworthiness; their numbers and influence caused them to play an important part in the later history of Rome and Byzantium.¹

(7) *Religious reasons.*—It formed an essential rite in certain cults for priests and votaries.

For the first six reasons an elaborate, symbolic instrument would not be required. This clamp was therefore designed and used for the last category. It was probably the property of a priesthood of some cult in which emasculation was an essential rite, and was part of the temple furniture.

§ 6.—THE RELIGIOUS CULT CONCERNED IN THE OPERATION.

Castration was an Oriental operation; mutilation of priests and votaries in connexion with religious cults and fertility festivals had also its origin and home in Asia, among the Semitic races, whence it spread by a process of proselytism. It was a noticeable feature in most of the closely allied cults in Anatolia and Syria,² e.g., Phrygia (Attis-Cybele cult), Stratonicea in Caria (Zeus-Hecate cult), Ephesus (Artemis cult), Hierapolis-Bambyce (Atargatis cult), Hierapolis in Syria (Adonis-Astarte cult), whither pilgrims from Assyria, Babylonia, Phœnicia and Arabia came to the great festival. It was found in Cyprus (Adonis-Aphrodite cult), Egypt (Osiris cult), and Augustodunum in Gaul (Berecynthia cult). Instances of the association with fertility festivals and phallic cults of castrated persons, "eunuchs from birth" (cryptorchids, hermaphrodites), and the functionally impotent have been found in India, Pegu, Korea, the Congo, South Nigeria and South Africa. Castration was sometimes associated with religious asceticism in the Early Christian Church; in modern times the same practice is found in India amongst Hindus, Sudras and Brahmins and also in Russia amongst the Skoptzy.

It was a rite originally closely associated with the Semitic Mother-Goddess of the East, the Asiatic fertility-goddess, who was worshipped under so many different names with the special complex of the Divine Consort, Heliolatry and ceremonies arising from these ideas. In the case of the Cybele cult and some others the rite was probably engrafted on the simpler worship of the Great Earth-Mother of the Mediterranean basin.

Many suggestions have been made to explain this widely-spread rite. It may have been an imitation of the act performed on Attis, or a token of humility manifested by the created to the Creator, or a symbol of subjection, a characteristically Eastern conception, or again a votive offering of that which was held most dear—the sign of creative force. The priests of Cybele adopted the name of Attis; they personified the Divine Consort of the Goddess. The rite may have signified the union of the deities, a perverted form of the Sacred Marriage. The periodical fertilization was considered necessary in order that the Goddess of Fertility should efficiently carry out her functions of transmitting life to plants and animals. The severed members, cast at the foot of the image of the goddess, were gathered up and placed in the sacred subterranean chambers of the Sanctuary of Cybele, or buried, i.e., placed in the bosom of mother-earth. The female dress was adopted afterwards. As an early operation produced a feminine type, it may have been related to the matriarchal idea, an ecstatic craving for assimilation to the goddess. Or it may be in origin a form of sympathetic magic, the votary encouraging the vegetative processes by assuming the attributes of the great goddess of vegetation.

Whatever its origin or meaning, there is no doubt that castration was considered essential for admission into the priesthood. The connexion between the severed

¹ E. Gibbon, *Decline and Fall of the Roman Empire*, 1896, i, p. 382, ii, p. 245, iii, p. 360, ed. J. B. Bury.

² J. G. Frazer, *The Golden Bough*, ii, v, vi. L. R. Farnell, *The Cults of the Greek States*, 1909, ii.

external genital organs and the fertilization of the soil is illustrated by the appearance on Castor pottery¹ in Britain of cock-phalli, in which the phallus may be winged (Colchester), and is provided with the legs of a cock. The cock was an emblem of the Corn-Spirit and was closely associated with the worship of Attis and Cybele, deities especially connected with the growth of corn. It is not impossible that some of the representatives of the phallus, on sculptured stones, amulets, rings, &c., in the period of the Empire, may have reference to the cult of Cybele, so popular at that time, rather than to that of Priapus, a member of the moribund pantheon of Rome.

In the accounts of the cult of Cybele which survive, stress is laid on the self-mutilation of the priests and votaries. These descriptions relate to the great festivals, when the votaries, after a period of fasting, worked up into a frenzy by vertiginous ritual dances and wild music, passed into a state of hypnosis. The forcible suggestion of the priests and the prominent display of the necessary swords in the temple, as at Hierapolis, had then the desired effect. The worshipper perpetrated the act perhaps quite involuntarily. There was probably no pain and little hæmorrhage, judging from the results of operations under hypnosis and the parallel acts of mutilation described in other forms of ritual in modern Oriental communities.

In the intervals between the great festivals the mysteries were conducted in a quieter, less ecstatic fashion. It was probably then difficult for the novice to screw his courage to the sticking point when entering the priesthood. This was so far recognized that even at the great festivals the testicles of a ram or bull were sometimes offered to the goddess as a substitute. During these intervals, therefore, the operation was probably performed by another person, possibly the High Priest or Archigallus, armed with an appropriately decorated instrument, such as that with which we are dealing. It would be of advantage at such a time to be able to perform the operation very rapidly with the least possible suffering and loss of blood. In the legends two versions are given of the mutilation of Attis. In one the mutilation was self-inflicted, in the other it was performed by someone else. A parallel occurs in the rites of the Skoptzy, where, at the meetings of the sect, a neophyte sometimes mutilates himself, though more commonly he submits to the operation at the hands of an important official at some other time. In India also the operation is performed on the religious ascetic by another person.

It has been asserted that the priests of Cybele were Castrati, not Spadones, but the instrument does not support this view. It is, however, possible that there were grades of initiation, and that the complete operation was conducted in two stages. This procedure occurs amongst the modern Skoptzy.

That the third method of operation was the one adopted is also suggested by certain extant representations of Attis, and "dancing priests," in which the penis is present though the external genitals are puerile, and the general physique feminine.

The third method was the more suitable for self-mutilation, as it required less courage, was attended by less shock and hæmorrhage, and could be carried out with the swords kept in the temple for that purpose. It is difficult to believe that any votary could parade the city or take his prescribed part in the festival after total removal of the genitals.

There are many variations in the details of the operation as performed in modern times amongst different communities. Generally a tight ligature is passed around the root of the genitals. The use of a clamp seems unusual, but in India,² among Hindus, Sudras and Brahmans, who submit to the operation of total removal from religious motives, a split bamboo lath takes the place of the ligature. This lath is passed down by an assistant close to the pubes, embracing the whole of the

¹ Colchester and Saffron Walden Museums.

² John Shortt, "The Kojahs of Southern India," *Journ. Anthropological Institute*, ii, 1873.

external genitals at the root. The operator grasps the organs with his left hand, and removes them at one sweep by a sharp razor.

The cutting instrument varied greatly. The legends relate that in the case of Uranus a sickle, doubtless of flint, was used. Attis employed a sharp stone, probably a knife of flint or obsidian from Melos. The sword was employed in Hierapolis.

Our instrument is instinct with the operation. Cronus (Saturn) castrated his father Uranus, and suffered in the same way at the hands of his son Zeus (Jupiter). Aphrodite (Venus) was the product of the outrage by Cronus. Attis was the result of the castration of Agdistis, and the indirect fertilization of his mother Nana. In turn he was subjected to the same treatment at the hands of himself or others. Cybele, in her male personification as Agdistis, also went through the same ordeal. The rite was thus employed by a great number of different cults in some cases closely allied. The question arises, which of these Oriental religions introduced this clamp and employed it in Britain?

The religion of Mithras may at once be excluded, as castration formed no part of the Mithraic Mysteries. There is some evidence of the worship of Astarte, the Tyrian Hercules, and the Egyptian cults of Isis, Serapis and Osiris in Britain, but at this period there was so much syncretism of these Eastern religions, which had so much in common, that it is not easy to separate them from the dominant cult of Attis-Cybele. The presence of Attis-Cybele at the summit seems here absolutely decisive. The bulls and lions are Eastern motives, and though not restricted to any cult, are particularly associated with Cybele. The planetary deities seem also closely connected with her worship. The worship of Cybele syncritized with other Anatolian and Syrian cults. It had spread over the whole Empire, and was firmly established in Gallia and Germania. It must have extended to Belgic Britain, peopled by a race of Gallic and Germanic origin, with very close political and commercial connexions with the adjacent continent. It no doubt received in Britain, as in Gallia, a great stimulus in the second and third centuries of our era. We are therefore justified in assuming that this instrument was a castration clamp used by the Archigallus in the rites of Cybele, and that it formed part of the furniture of a temple of the Great-Mother in Londinium.

§ 7.—DATE OF THE INSTRUMENT.

The presence of the planetary deities gives a useful indication of the date of the clamp. The Astral cult, in which the stars, sun, moon and five planets ruled human life,¹ was of Eastern origin. It was associated originally with Babylonian astrology. Although there were traces in Rome from 159 B.C. or earlier, the quasi-scientific study of astrology dates from the birth of Augustus in 63 B.C.,² and seems to have reached its climax about the time of Antoninus Pius (A.D. 138-161). Though introduced into the Western world in association with certain Oriental religions, the planetary deities were identified with Western gods. In addition to other functions they were particularly associated with the days of the week from at least the first century of our era. Their employment in art appears in a calendar painted on a doorpost in the house of Trimalchio³ during the reign of Nero (A.D. 54-68), and in medallions in wall-paintings at Pompeii during the reign of Vespasian (A.D. 69-79). Though found in Syria, Egypt and Italy, their representations are especially noticeable in

¹ F. Cumont, *Textes et Monuments Figurés, Les Mystères de Mithra*, 1896. *Les religions orientales dans le paganisme romain*, 1906. *Astrology and religion among the Greeks and Romans*, 1912. J. de Witte, "Les divinités des sept jours de la semaine," *Gazette archéologique*, Paris, 1877, iii, pp. 50-57, 77-85. L. Lersch, "Der planetarische Götterkreis," *Bonner Jahrbücher*, 1844, iv, pp. 147-178; 1845, v, pp. 299-326. Haug, *op. cit.* A. Lang, "Star Myths," *Custom and Myth*, 1893. Salomon Reinach, "Dies," *Daremberg et Saglio. Dict. Antiq. grecques et romaines*, ii, p. 171.

² W. Warde Fowler, *The Religious Experiences of the Roman People*, 1911.

³ Petronius Arbiter, *Satyricon*, c. 30 (Cena Trimalchionis).

Eastern Gaul and Western Germany in the regions of the Rhone and Rhine. They are known also in Britain. Their appearance in the Rhine area can be dated from the reign of Nero,¹ but they occur more commonly in the reigns of Septimius Severus (A.D. 193-211) and the succeeding emperors.

In the western area the planetary deities appear usually in the same order as the tutelary divinities of the days of the week, ranged from left to right or right to left and commencing with Saturn. They are found on objects of a religious character, such as stone altars, funereal stelæ, the octagonal bases of the "Jupiter and Giant" columns, calendars and reliefs, and other objects of temple furniture, such as this clamp must be. They also occur on objects of a secular nature, and have then a talismanic function, e.g., tessellated pavements, vases of silver and bronze, pottery, and bronze circular amulets. In a symbolic form they appear on pre-Claudian British coins and Romano-British seals.

These considerations suggest that the instrument is post-Augustan, probably belonging to the second or third century.

§ 8.—PLACE OF MANUFACTURE OF THE INSTRUMENT.

This instrument and the specimen from Augst have the same general features. The Augst instrument is probably earlier and perhaps of local workmanship. The elaborate design, developed mechanical construction and fine workmanship of the London example render it unlikely that it was provincial work and suggest an origin in Rome or some Italian centre.

If made in Rome, it was probably intended for use in Britain or Western Europe, as it was ornamented with representations of the planetary deities.

The crudeness of the sculpture, the absence of definite symbols by which we might distinguish Keltic gods from those of the Romano-Greek pantheon, and the use of native pottery in the representations of the planetary deities prove that most of the objects of this type found in Gaul and Britain were of provincial manufacture. A few metal vases, figurines and other objects have been found that can only have been made in an Italian centre or by Italian craftsmen. Such is the case with our clamp, on which we note the definitely Roman character of the deities, each with the conventional symbol. M. Cumont² suggests that there was a regular trade in religious objects made in Rome.

The representation of eight planetary deities, in accordance with the eight days of the Roman week, is also suggestive; in the Keltic area the number is frequently only seven, even when symmetry demands an eighth member. The position of the presiding deities, too, is worthy of note; the goddess faces the right hand of the observer; in Eastern Gaul there are many native sculptures with representations of pairs of divinities of several different types, but in almost every instance it is the god that occupies this position.³

Moreover, the horns of the bull also support the view of the Roman origin of this object. They are of the Roman or lyre-shaped type,⁴ as seen at Pompeii and in the majority of Romano-Greek representations, and are quite unlike those of the Keltic shorthorn (*Bos longifrons*) with the strong forward curve, the only domesticated variety in Britain before the Roman occupation.

¹ Mrs. A. Strong, *Journ. Roman Studies*, 1911, i, p. 23 (Jupiter and Giant column at Mainz).

² F. Cumont, *Les Mystères de Mithra*, 3me Ed. 1913.

³ Émile Espérandieu, *Recueil général des Bas-reliefs de la Gaule romaine*, 1907 et seq. Salomon Reinach, *Cultes, Mythes et Religions*, 1922.

⁴ T. McKenny Hughes, "On the more important Breeds of Cattle," &c., *Archaeologia*, lv, p. 137, fig. 10.

§ 9.—THE DECORATIVE FEATURES AND THEIR SIGNIFICANCE.

(a) *The Presiding Deities of the Cult at the Summit.*—Attis-Cybele. These two deities stamp the instrument as the property of the cult. They alone face the observer, as if supervising the rite. They are the only completely Asiatic deities represented. Their prominent position indicates that in religious matters the Orient has acquired complete ascendancy over the Occident, since the days when Rome, in her need, forsaking her own gods, sought the help of the Magna Mater of Phrygia in 204 B.C. The planetary deities are here identified with the gods of the Romano-Greek pantheon with Western garb and attributes. Accordingly, they occupy a subordinate position. Played out, as it were, they merely act as intermediary deities or serve to mark the flight of time.

The combination of the Divine Mother and her Divine Consort, on an equal footing, demonstrates that the primitive dominance of the Great Earth-Mother, the Virgin Goddess, complete in herself, has passed away. The cult has developed and Attis, the Anatolian god of vegetation, and consort of Cybele, is now the Sky-Father, the Sun-God, the Creator of all living things, the symbol of resurrection and a future life. He is united with the Earth-Mother, now also Queen of Heaven and Moon-Goddess. They possessed many attributes; but were essentially fertility-deities, different but complementary.

(b) *The Horses.*—These are evidently stallions, by their boldly arched faces and thick muscular necks. They may, perhaps, like the bulls, represent creative power. Their large size, prominent position, separation from the other animals and close association with the presiding deities suggest, however, a specially intimate connexion with Attis or Cybele, or both of them. They may, perhaps, represent the Sun-horse or the horses of the *biga* of Attis, the Sun-God. The symmetrical arrangement and association with both deities suggest some attribute common to both Attis and Cybele; perhaps they really represent the embodiment of the Corn-Spirit, as the production of corn was under the particular care of both deities. The importance of the horse in this respect was pointed out by Mannhardt,¹ whose opinion is supported, with reference to the "October-horse" and other instances, by Sir J. Frazer, Dr. L. R. Farnell, and the late Dr. W. Warde Fowler.² It seems not unlikely that the cult of the Horse³ in Western Europe, the horses of Epona in Belgic Gaul and Belgic Britain, some of the horses on Gallic and British coins, the equine deities of the Kelts, the horses cut in the turf of our chalk hills, and the horse-burials among the Parisii and Catuvellauni may be explained in the same way.

(c) *The Planetary Deities.*—The series reads from left to right, and begins with Saturn at the proximal end of the body of the left shank, passing up the body to the half-oval, and continuing downwards on the body of the right shank to its proximal end, as follows:—

Left Shank.

Dies Saturni (Saturday), Saturn (Cronus).
 Dies Solis (Sunday), Apollo (Sol, Helios).
 Dies Lunæ (Monday), Diana (Luna, Artemis).
 Dies Martis (Tuesday), Mars (Ares).

Right Shank.

Dies Mercurii (Wednesday), Mercury (Hermes).
 Dies Iovis (Thursday), Jupiter (Zeus).
 Dies Veneris (Friday), Venus (Aphrodite).
 Eighth Day of the Roman week.

¹ Mannhardt, *Mythologische Forschungen*.

² W. Warde Fowler, *The Roman Festivals of the period of the Republic*, 1899.

³ Salomon Reinach, "Vercingétorix à Alésia," *Cultes, Mythes et Religions*, iii, p. 139. "Les survivances du totemisme chez les anciens Celts," *Cultes, Mythes et Religions*, i, p. 30.

In representations of the planetary deities, whether having relation to the days of the week, as in calendars and certain monuments, or having purely tutelary functions, although arranged in the same order, as in amulets, &c., symmetry, the scheme of decoration, or plan of the object, may provide an eighth space. This eighth space is sometimes left blank, or is occupied by an inscription. Sometimes the space is filled by an additional deity, which is usually a Genius, Fortuna, Bonus Eventus, Felicitas, &c. In our clamp, Mr. C. R. Smith suggested Ceres, as she "equalizes the number on each side, and, at the same time, represents the old Roman week of eight days." The head is crowned with a calathus.

Saturn, bearded, wears a mantle draped like a hood. Apollo has a crown with rays. Diana bears a crescent moon at the vertex. Mars wears a plumed helmet. Mercury has a pair of wings at the temples. Jupiter, bearded, wears a crown of olive leaves. Venus has a stephane or diadema.

They are mostly deities connected with fertility in one form or other. It is surely no accident that, like the stallions and bulls, they are represented with their backs turned to Attis-Cybele and their faces averted from the scene of an act so fatal to reproduction.

(d) *The Bulls*.—From the dawn of pre-history, the bull has been regarded as the emblem of generative force. It was represented in this aspect by the Palæolithic cattle-hunter, as well as by the cattle-breeder of the Neolithic and Bronze Ages. As totem, symbol of a deity or object of sacrifice, it appears more frequently in religious representations than any other animal. It was, like the ram, sacred to Cybele; but was associated with Attis, in the same way as the lion was with Cybele.

(e) *The Lions*.—In the religion of Cybele the lion and bull association had a long ancestry, dating from the Minoan period, when Crete and Phrygia were closely connected, before the Phrygo-Thrakian wave from Europe had passed over the earlier Anatolian population. The Great Earth-Mother was the Goddess of life and reproduction and also the Goddess of death. The bull symbolized the former attributes, the lion the latter. In addition, the lion assumed a particularly prominent position throughout the whole area influenced by the Earth-Mother and her successive phase as the Magna Mater of Phrygia. This lion was, however, a domesticated animal. Accordingly, lions appear as attendants, temple-warders, guardians of the tomb, anthropophagous animals, heraldic supporters, the draught-animals of her chariot, the seat on which she reclines, the arms or supports of her chair, and the animal which she caresses on her lap.

The general scheme of decoration has been planned very carefully; and yet is quite simple and full of meaning. It is no mere medley of heterogeneous ornament. If the instrument is held in a vertical position, the presiding deities of the cult, attended by their special Corn-Spirits, are at the summit. At the base are their symbolic animals. At the sides are the planetary deities, characteristic of the cult, acting as intermediaries between the celestial beings above and the terrestrial below. If held horizontally, the divinities encircle completely the area of the ritual act, except in the region of the handles, the terminals of which are provided with guardian lions. The design and the symbology of the instrument are as remarkable as the surgical technique.

§ 10.—THE FATE OF THE INSTRUMENT.

This instrument, then, was made in Italy and imported into Belgic Britain to form part of the furniture of a Temple of Attis-Cybele in Londinium, which was now a great commercial and administrative centre thronged with Oriental merchants and other devotees of the Great Mother. It was used, broken and repaired in the course of its history of perhaps nearly 200 years.

At length the time arrived when a new Oriental religion, which had been recognized previously by Constantine in the Edict of Milan in A.D. 313, became the official religion of Imperial Rome, in A.D. 323. The Oriental religions, which had supplanted the worship of the ancient Gods of Rome and Greece, had in turn to give way to Christianity, and the Sanctuary of the Magna Mater in Londinium doubtless shared the fate of the pagan temples elsewhere.

The temple was probably raided by the Early Christian iconoclasts and the clamp was broken intentionally. This seems obvious when one considers the force required to separate completely the mortised hinge from the shanks; this separation could not result possibly from any legitimate use or accidental fracture. It could be effected easily by opening the clamp and moving forcibly the shanks in a lateral direction far beyond the normal range of movement; e.g., by grasping the handles, and bending them laterally while the knee was pressed against the hinge. The right handle was bent probably at the same time, at the place where the perforation for the connecting-bar was situated, this being the point of greatest weakness. The same movement brought the medial portions of the busts of the Attis and Cybele forcibly into contact, with the result that they are bruised and broken on this aspect.

The broken clamp and the rest of the temple furniture were thrown, most probably, into the River Thames, near which there is some reason to believe that the temple was situated.

§ 11.—SUMMARY.

(1) The instrument was found in 1840 in the bed of the River Thames, near London Bridge.

(2) It is a ritual clamp for castration, by the method used for Spadones, i.e., eunuchs who retain the penis.

(3) It was used to clamp the scrotum before it was removed by the ritual knife.

(4) There is a clamp in the Historisches Museum at Basel, which was used for the same operation, but is of simpler structure.

(5) The clamp was the property of a priesthood in which emasculation was an essential rite.

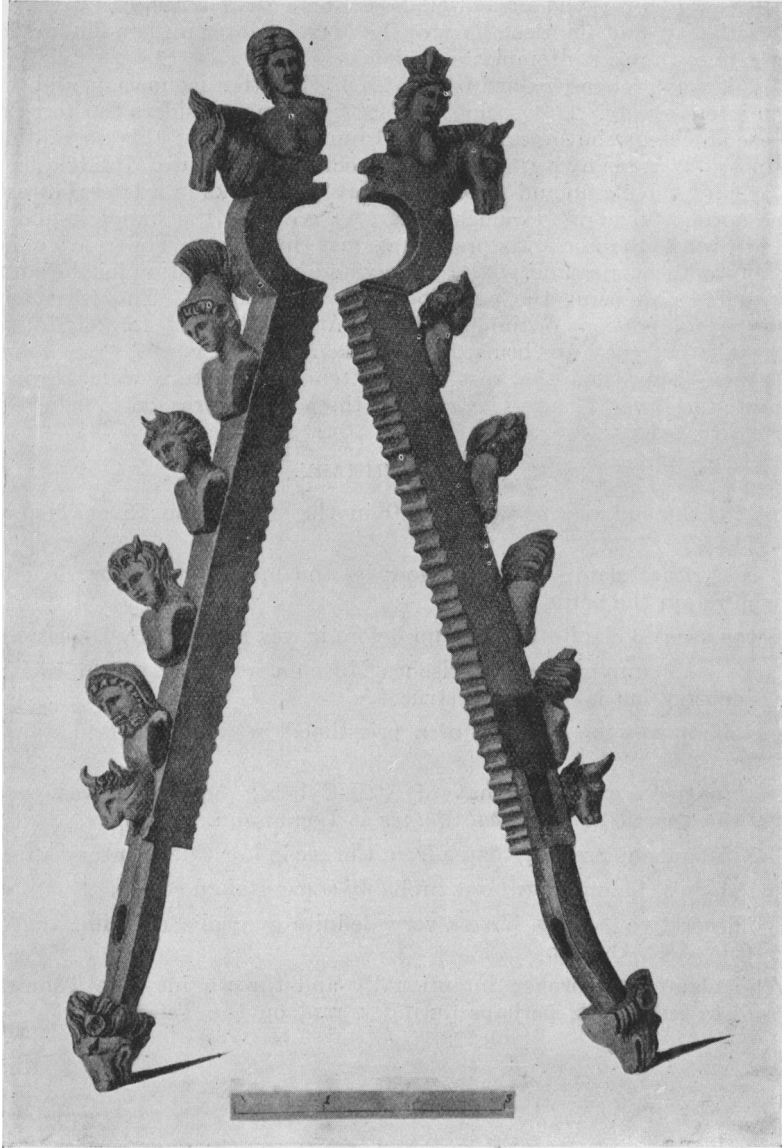
(6) The religious cult was that of Attis-Cybele; the clamp was part of the furniture of the Temple of the *Great Mother* at Londinium.

(7) The instrument probably dates from the second or third century after Christ.

(8) The place of manufacture was probably some Italian centre.

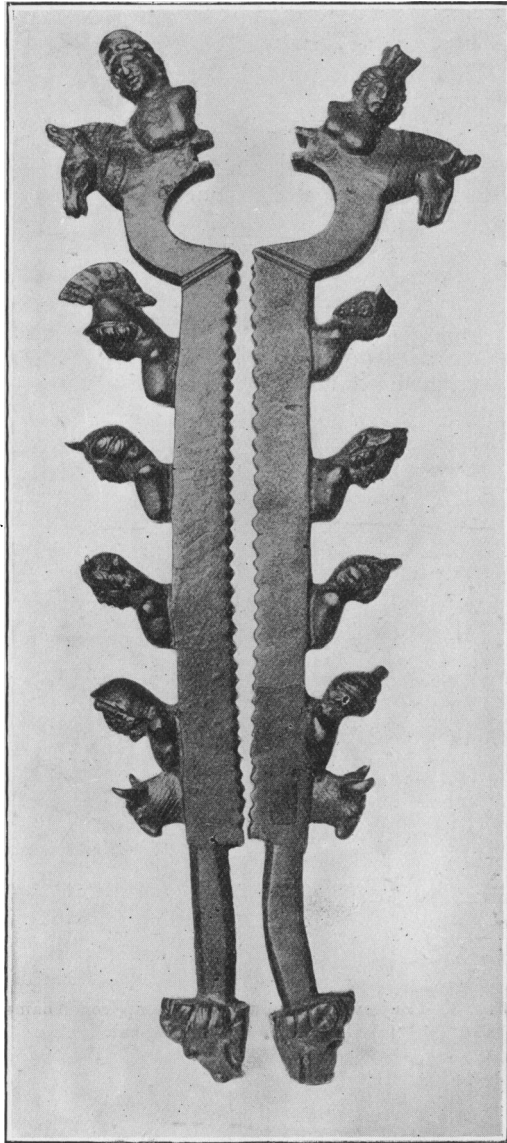
(9) The decorative features have a very definite symbolic meaning, suggestive of the worship of Attis-Cybele.

(10) The clamp was broken intentionally and thrown into the Thames by an Early Christian iconoclast, perhaps during a raid on the Temple.



By permission.

FIG. 1.—Bronze Clamp from River Thames at London. British Museum, Room of Roman Britain, Case D, from "A Guide to the Antiquities of Roman Britain," p. 86, plate VI. $\frac{1}{2}$ scale.



By permission.

FIG. 2.—Bronze Clamp from River Thames at London. Room of Roman Britain, Case D, British Museum. $\frac{1}{2}$ scale.

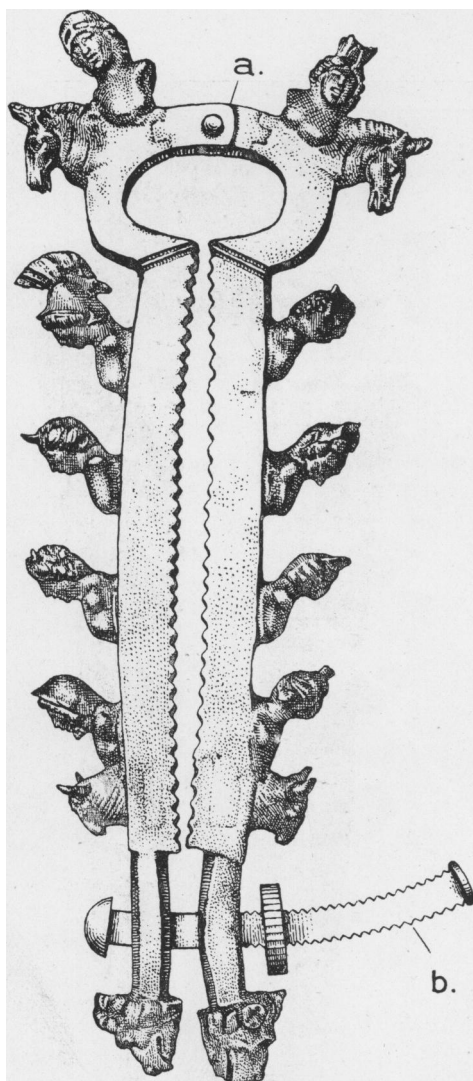
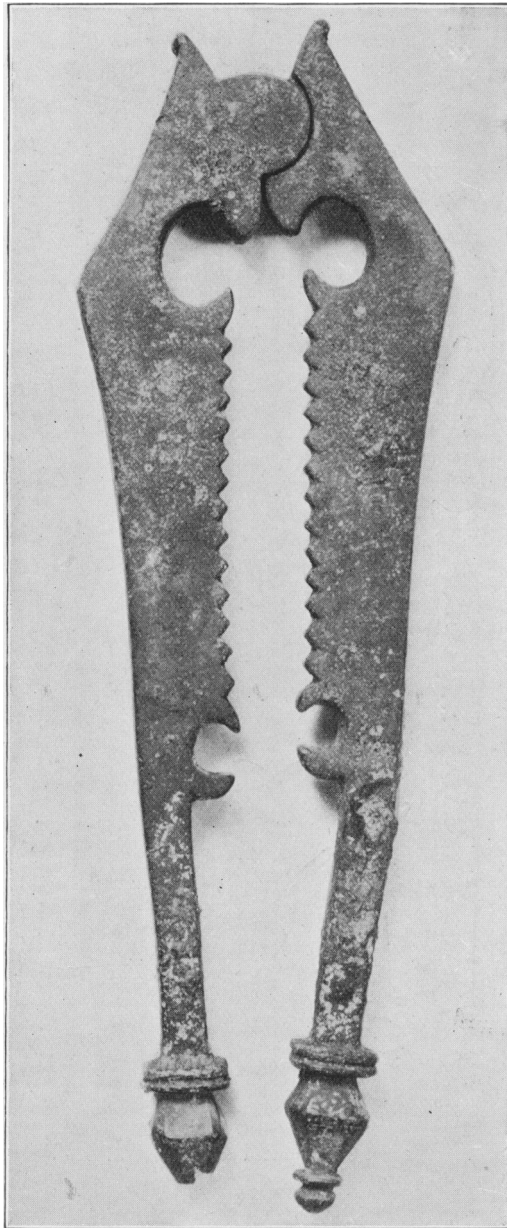


FIG. 3.—Conjectural restoration of Clamp from Thames.
(a) Hinge. (b) Connecting-bar.



FIG. 4.—Section of hinge in Fig. 3.



By permission.

FIG. 5.—Bronze Clamp from Augst, near Basel. Historisches Museum, Basel. $\frac{4}{5}$ scale. (No. 1907. 1505.)

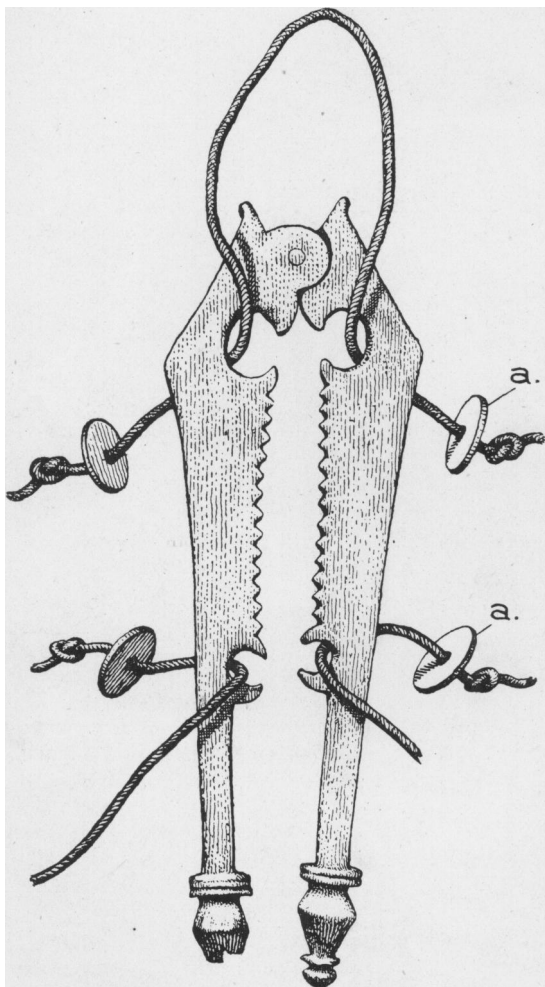


FIG. 6.—Clamp from Augst, fitted with knotted cords and metallic discs (*a*).

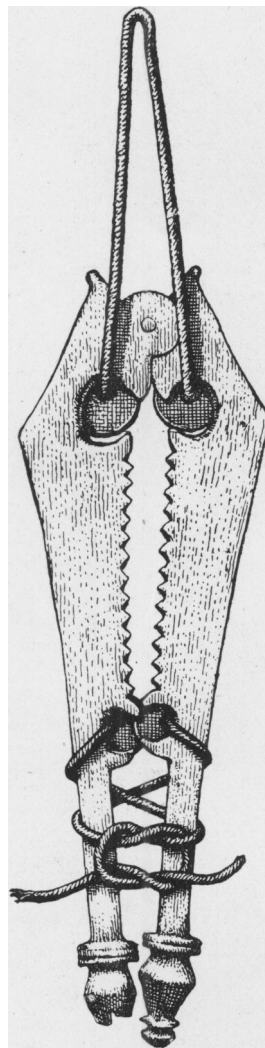


FIG. 7.—Clamp from Augst, closed, as for the operation.