have been issued, and, at the time of tabulation, answers had been received from about one half of this number. The data thus collected have been placed at the service of the General Medical Council, and a cordial letter, recognising the material assistance thereby furnished, has been received from the President.

The information elicited in this inquiry is of considerable interest, and must materially influence the retention or omission of drugs from the *Pharmacopœia*; thus its great value to the medical profession can scarcely yet be estimated.

The Committee hope, during the ensuing year, to pursue investigation of numerous questions which have arisen in connection with the *British Pharmacopœia*, both concerning the introduction of newer remedies and the improvement of older Galenical formulæ.

NESTOR TIBARD, *Hon. Sec.*

REPORT OF COMMITTEE FOR THE EFFICIENT CONTROL OF RAILWAY SERVANTS' AND MARINERS' EYESIGHT.

THE most important action taken by the Committee during the past year was the organisation of a deputation of ophthalmic surgeons, which waited upon the President of the Board of Trade (the Right Hon. James Bryce, M.P.), at Whitehall, on February 1st, 1895.

The composition of the deputation, the names of the speakers, and an abstract of the speeches, have already been published (see *BRITISH MEDICAL JOURNAL*, February 9th, p. 315, and May 18th, p. 1112).

The Committee takes this opportunity of thanking all those gentlemen who supported it upon that occasion. A more important representation of ophthalmic opinion could scarcely have been secured in this country, and the "weight and influence" of the deputation was fitly acknowledged by Mr. Bryce.

The Committee has reason to believe that, if the results of its action are not immediately apparent, it has at least impressed upon the permanent officials of the Board of Trade the importance of including defects of vision among the possible causes of disaster by land and sea, and has excited a public interest in the subject which will not soon pass away.

THE PRESENT POSITION OF THE QUESTION ON THE RAILWAYS OF THE UNITED KINGDOM.

The Board of Trade has at present no power to enforce any uniform system of eyesight testing on our railways, and, as indicated by Mr. Bryce in his reply to the deputation, the Government officials are unwilling to ask for further power until some grave accident shall be proved to have been caused by defective vision. Considering the very unsatisfactory methods of examination still employed on some railways, this inaction is not commendable. But apart from the possibilities of jeopardy to the public which this policy entails, there can be no question that the adoption and enforcement by properly qualified examiners of uniform standards of vision for railway servants would be of the greatest advantage to the men, and would considerably lighten the responsibilities of the railway managers in promoting desirable reforms.

Under the present system, by which each company is left to adopt its own standards, there is no security for the men that these may not be altered at any time.

The hardship of such a change was well illustrated during the past year, when the North British Railway officials, having determined to increase the stringency of their examinations, found themselves obliged to dismiss from their employment, or transfer to positions of less responsibility at reduced wages, more than 100 drivers, firemen, and guards, many of whom had seen several years' service. Nearly all of these were rejected for defective sight (*not colour blindness*), and yet this company even now requires no higher standard than the army dot test, or, in other words, men with *only one-third of normal vision* can still be admitted.

This test is now used on many railways. Its insufficiency is already recognised by a few of the more progressive railway managers, and, as the number of these increases, the weeding-

out process will again press hardly on men who should never have been admitted to railway responsibilities, and who, if they had been properly examined at the outset of their careers, and warned in time, might have found more permanent occupation in industries better suited to their visual capacity.

There is undoubted evidence, however, on all sides that the railway companies are now attaching more importance to visual examinations, and it may fairly be claimed that, during the past year, some progress has been made towards the more effective control of railway servants' eyesight.

THE CONTROL OF MARINERS' EYESIGHT.

In September, 1894, the new regulations for the examination of the eyesight of masters and mates in the mercantile marine came into force. The adoption of Holmgren's test for colours and the introduction of a test for distant vision mark an important advance in the official modes of testing, but grave defects still exist in the present methods of control. For instance, boys are apprenticed to the sea without compulsory examination of their acuteness of vision or colour sense, and cannot legally escape from their indentures should their vision be found later to be defective. Similarly men are allowed to serve at the wheel or on the look-out without any inquiry as to their visual fitness. No visual examination is enforced until promotion to officer's rank is sought, and, needless to say, rejection is then harder to bear, and a false start in life is less easily remedied. The employment of lay examiners and the omission of refractive measurements increases the liability to error in judging of the visual capacity of candidates. These deficiencies and some suggestions for their removal were duly laid before Mr. Bryce, and are fully stated in the *BRITISH MEDICAL JOURNAL* of May 18th, pp. 1112 and 1113.

The Committee desires to express its special obligations to Mr. Bickerton, of Liverpool, for his admirable exertions in this connection.

It is satisfactory to know that the reforms which were urged upon Mr. Bryce were heartily endorsed by several societies of shipping and navigating officers, and that only a regard for Mr. Bryce's expressed wish that the deputation should be limited to medical men prevented a very definite expression of opinion being submitted to him by representatives of the above societies in favour of the Committee's recommendations. Under these circumstances the Committee is encouraged to persevere in its labours, and requests a continuance of its appointment.

N. C. MACNAMARA, *Chairman.*
GEORGE MACKAY, *Hon. Sec.*

DONARIA OF MEDICAL INTEREST.

By DR. LUIGI SAMBON,
Rome.

(Concluded from page 150.)

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.

Fig. 11.—Psoriasis of elbow (Rome).

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.

Together with these images of anatomical parts there have

Fig. 12.—A kidney (Capua).

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. Archaeologists 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 archaeologists among grotesque figures are representations of 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

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

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.

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 images 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 galactorrhœa. 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

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

evident signs of pregnancy. Very often a child is seated between them or in the mother's lap. They represent grateful 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 Epidauros 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 *voana* 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.

MIDWIVES REGISTRATION.

THE text of this Bill in the House of Lords has been modified in several important respects owing to the amendments adopted on report. We therefore print the Bill as it stood at the close of the last Parliament. The text of the Bill as introduced by Lord Balfour of Burleigh was published in the BRITISH MEDICAL JOURNAL of May 11th, pp. 1055, 1056.

We subjoin also the text of the "Midwifery Nurses Act" drafted by a Subcommittee of the Parliamentary Bills Committee, consisting of Dr. R. W. Batten (Gloucestershire Branch), Dr. Spottiswoode Cameron (Yorkshire Branch), Mr. E. H. Galton (South Eastern Branch), Professor Victor Horsley (Metropolitan Counties Branch), Mr. Evan Jones (South Wales and Monmouthshire Branch), and Dr. S. Woodcock (Lancashire and Cheshire Branch).

MIDWIVES REGISTRATION BILL.

HOUSE OF LORDS.

(AS AMENDED ON REPORT.)

BE it enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

1. *Short Title.*—This Act may for all purposes be cited as the Midwives Act, 1895.

2. *Definitions.*—In this Act "Midwives Register" means a register of midwives kept in pursuance of this Act; "Midwives Board" means the Board constituted under this Act for the purpose of carrying out the provisions of the Act.

3. *Establishment of Register.*—A midwives register shall be established under this Act, and subject to the provisions of this Act any woman shall be entitled to be registered therein as a midwife who passes the qualifying examination held for the purpose under this Act.

4. *Registration.*—(1) From and after the expiration of eighteen months from the date of the establishment of the midwives register a woman shall not take or use the name or title of midwife (either alone or in combination with any other word or words), or any name, title, addition or description implying that she is registered under this Act, or is specially qualified to act as a midwife, unless she is registered under this Act. (2) If any person acts in contravention of this section, that person shall be liable on summary conviction to a fine not exceeding five pounds. (3) Nothing in this section shall apply to legally qualified medical practitioners.

5. *Privileges of Registration.*—From and after eighteen months from the date of the midwives register, no woman shall be entitled to recover any fee or charge in any court for attendance or service rendered as a midwife unless such woman be registered under this Act. A woman shall not by reason of being registered as a midwife under this Act have any right or title to be registered under the Medical Act, 1858, or the Acts amending the same, or to assume any name, title, or designation implying that she is by law recognised as a licentiate or practitioner in medicine or surgery, or that she is qualified to grant any medical certificate or any certificate of the cause of death.

6. *Provision for Existing Midwives.*—Any woman who at the passing of this Act is in *bona fide* practice as a midwife, or has obtained a certificate in midwifery from some hospital or workhouse infirmary, or from the Royal College of Physicians of Ireland, or from the Obstetrical Society of London, or such other certificate as may be approved by the General Medical Council, and claims to be registered before the expiration of two years from the passing of this Act, and produces the prescribed evidence of her title to be so registered (such title to be determined by the General Medical Council), shall be entered on the midwives register at such reduced fee as the Midwives Board shall prescribe.

7. *Constitution and Duties of Midwives Board.*—(1) Within six months from the passing of this Act a Midwives Board shall be formed, which shall consist of twelve registered medical practitioners, three to be appointed by the Royal College of Physicians of London, three by the Royal College of Surgeons of England, three by the Society of Apothecaries, and three by the Incorporated Midwives Institute, and of three persons in addition, to be appointed by the Lord President of the Council, of whom one at least shall be a woman. One of each of the sets of three members so appointed shall retire in every year, and his place shall be filled by a fresh appointment made in the same manner as the original appointment. A retiring member shall be eligible for re-appointment after the lapse of one year. Subject to the provisions of this Act and of any rules made thereunder, the Midwives Board shall, in addition to any other duties under this Act—(a) Establish and keep the midwives register under this Act, and provide for holding qualifying examinations. (b) Conduct the examinations and appoint, if necessary, assistant examiners. (c) Decide upon the places where and the times when examination shall be held. (d) Make regulations for governing their own procedure. (e) And generally do any such duty as may be necessary for the due and proper carrying out of the provisions of the Act. (2) The Privy Council and the General Medical Council shall take steps to secure the appointment of the first Midwives Board in conformity with this section, and the Privy Council shall call the first meeting thereof. (3) When the Midwives Board have made the arrangements necessary for keeping the midwives register under this Act and for holding the qualifying examinations, they shall give notice thereof to the Privy Council, and the Privy Council shall fix a day as the date of the establishment of the mid-