ANCIENT EGYPTIAN MEDICINE.

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EBERS PAPYRUS—EAR DISEASE.

IN trying to judge of the nature of the medicinal remedies recommended in these old times, one of the best ways is to take some special department, of limited size, and to give a translation of all that concerns it. The section on the ear has been selected for this purpose. We must remember, however, that this is a very severe test, as the growth of the specialities has of late years been enormous. No doubt if general practitioners in this country were now tested by their knowledge of the aural speciality, the result would be to show the majority of them at a great disadvantage as compared with how they might appear if tested on the wider basis of general practice. The following is from Joachim's translation (page 91 of Papyrus):—

THE BEGINNING OF THE REMEDIES FOR AN EAR THAT HEARS BADLY.—Red-lead and resin from the am-tree, grind to powder, and rub down in fresh olive-oil (?), and apply to the ear.

ANOTHER FOR AN EAR FROM WHICH MATTER RUNS HAVING A BAD SMELL.—Frankincense in goose-grease, cream from cow's milk, bedet-corn (a particularly pure kind of soda), hañit-resin; crush to powder, rub down, mix and apply to the ear.

ANOTHER FORM OF TREATMENT FOR THE EAR.—Use cool remedies in place of warm. If the met¹ trembles, then make for it ut of greenstone; crush to powder, and use four days thereafter.

AFTER THAT MAKE FOR IT A CHARPIE.—Oil $\frac{3}{4}$, honey the remainder. Apply frequently. If there is running from the orifice, make for it a ball for drying wounds (consisting of) resin of Acanthus, resin of zizyphus, lotus, willow-berry, cumin; crush to powder and apply. If it becomes enlarged underneath, THEN MAKE FOR IT THE REMEDY FOR DRYING UP WOUNDS—head of the āmānu animal, gazelle's ears (?), tortoiseshell, anek-plant. Stop it up with this frequently. Do this without delay. If it runs out on the ground, then it is a cure of the ear; for it breaks by the shooting-forth of the God Su [God of the air]. If it does not fall to the ground, then make a slime the size of the protusion (the swelling), enclose it in the milk-juice of the sycamore tree so that it mingles with its blood; do not add oil or honey. Cut off the half of it, as it is not wanted that the blood fall from the other half also, that it be not entirely corrupted. [Translation from MS here uncertain.] IF YOU AFTERWARDS PERCEIVE THAT IT HAS HEALED UP, THEN MAKE FOR IT—Oil, wax; boil, and spread with it; do not take much. Treat in this way every abscess that breaks. If it goes off in abundance, then make a linen bandage, and tie up round the back of the head.

What to do in the treatment of an ulcer that extends into the ear.—There is swelling inside; there is the matter from the abscess and the dirt in the ear, with watery fluid from the fermented mesēs-drink. Go round about it (the ulcer) with the knife, as far in as it is diseased, and make for it oil, honey; inside, a charpie of flaxen stuff. Spread over with this that it may become whole.

REMEDY FOR A CONSECRATED EAR, THAT IS SUPPURATING.—Olive-oil (?) 1, frankincense 1, sepepet-seeds 1, syringe into the ear. ANOTHER—Sepepet-seeds 1, frankincense 1, sea-salt the same. ANOTHER FOR DRYING UP AN EAR THAT IS RUNNING.—Vermillion 1, cumin 1, ass's-ear 1, hātet-oil 1, olive-oil (?) also.

GENERAL DISEASES: WORMS.

With regard to more general diseases, Egyptian medicine is much concerned with the treatment of worms of various kinds. In the introduction to his translation, Joachim gives good reasons for regarding "pendworm" as representing what we know as *tænia mediocannellata*: "the root 'pen' means *se déplisser*, to unfold oneself; the determinative indicates a worm." The *tænia solium* is excluded as the Egyptians did not eat pork. In a similar manner he makes out that "heftworm" represents our *ascaris lumbricoides*: "the root *heft* means to stretch oneself forth, to wind oneself, to creep; the determinative indicates likewise a worm." He shows that this worm cannot have been a tapeworm, as it is described in one passage as "the dark, black heftworm," terms quite inadmissible for a tapeworm.

Perhaps the most interesting disorder referred to in the papyrus is one still connected with worms, the "āā-disease," and shown by Joachim and Scheuthauer,² independently, to be *chlorosis Ægyptiaca*, due to the *Ankylostoma*

duodenale. As the subject is very important, I will quote Joachim's section on this subject from his Introduction.

"THE AAA DISEASE=CHLOROSIS ÆGYPTIACA.

"Under this title a disease is frequently mentioned in the first half of our Papyrus, and, judging from the great number of prescriptions mentioned for it, it must have been widely spread over Ancient Egypt; further, we find it again in the Papyrus Brugsch. Numerous conjectures as to its nature have been already published, mostly, however, by Egyptologists, but no one has hitherto succeeded in giving a satisfactory explanation of it. In order to hit upon a more exact definition, I collated in the first place all those passages in our Papyrus in which the AAA disease is described or mentioned. It would lead us too far to reproduce this collation here; anyone, by taking up the translation, can quite easily in a short time collect these references by means of the index. Originally, I believed from the whole clinical picture (we have to do, as is explicitly mentioned in the manuscript, with a disease of the abdomen) that I could conclude that the disease was an affection of the nature of cholera or dysentery, all the more, indeed, as dysentery nowadays still appears with extraordinary frequency in southern countries, especially in Egypt. There were many points, to be sure, which told against this theory. I will not enter here further upon these numerous considerations; only two points shall be quoted as shortly as possible. The ancient Egyptians were excellent observers, and it would indeed be remarkable that they should have left altogether disregarded in the description the most striking symptom of both of the diseases mentioned, namely, the diarrhoea. Further, however, I concluded from the order not infrequently mentioned in connection with this disease, 'to be taken immediately after going to bed,' that the patient was not confined to bed by this illness, as would, of course, be the case with cholera and acute dysentery, and that, consequently, the disease in question was a chronic one, as we should say nowadays. Thus cholera and dysentery were from the very outset absolutely excluded.

Now, on the other hand, a more accurate examination of all those passages in which the word mentioned occurs, resulted in showing that, without doubt, the AAA disease must be taken in connection with worms, a view which Scheuthauer had already published before me.³ The passage in question is upon page 19 of the Papyrus; there an excellent remedy is prescribed to be used for the abdomen of a patient who has in his abdomen worms, which are produced by the AAA disease. From my collation of passages I could further conclude that the disease in question must have been a chronic and dangerous disorder of the digestive system, which occurred very frequently in Ancient Egypt, and one which left behind it serious disturbances on the part of the circulatory apparatus, especially of the heart. To this combination of symptoms thus shortly sketched, there corresponds pretty exactly the *Chlorosis Ægyptiaca* occasioned by the *Ankylostoma duodenale*, a disease which is also nowadays extraordinarily common in Egypt, according to the unanimous communications of competent investigators such as Pruner-Bey, Bilharz, and Griesinger. We consider it as only a very moderate estimate, say, the last-named author,⁴ if we suppose that one-fourth of the population of Egypt suffers from this disease—*Chlorosis Ægyptiaca*—to a greater or less extent."

"It was interesting and at the same time very instructive for me that, in one of the most recent works upon this subject by Lutz,⁵ some of the symptoms mentioned in our Papyrus, in particular those relating to the heart, are rendered almost in the same words: 'The heart palpitations,' 'the feeling of pain' in the heart region, which declares itself 'sometimes as a dull pressing, sometimes as decided stabbing and burning,' are represented in our manuscript by 'the heart weakness, heart palpitations, and heart stab.' A comparison of the two passages teaches us, therefore, that the Ancient Egyptian physicians knew how to observe well."

"Of course I do not wish to conceal the fact that the determinative sign used with the word 'AAA'—namely, the Phallus—although not exactly against our view, certainly does not seem to tell in its favour; still, the word 'AA=ass,' for example, has also the determinative sign of the Phallus, and we cannot, in accordance with our present ideas, furnish a satisfactory explanation for this; it is thus possible that the ancient Egyptians desired to express by this sign a theory which is not now intelligible to us. On the other hand, however, according to the observations of Lutz,⁶ impotence develops in males in severe cases of *Chlorosis Ægyptiaca*, and pregnancy occurs very seldom among the female patients; further, the development of puberty is delayed in this affection for months and years. It might, therefore, be supposed that the Egyptians wished to direct attention to this phenomenon by the determinative sign of the Phallus. All things considered, the conclusion which I have drawn is, indeed, well substantiated—that we must understand by the 'AAA' disease the *Chlorosis Ægyptiaca* occasioned by the *Ankylostoma duodenale*."

Two other forms of disease repeatedly mentioned in this Papyrus may also be referred to here, particularly as they are both connected so far with the symptoms of *Chlorosis Ægyptiaca*. The following quotation from Joachim's Introduction shows how the inherent difficulties of the subject are dealt with, and pretty satisfactorily overcome, when attacked by one who is at once an Egyptologist and a practitioner of medicine:

"THE UHA DISEASE."⁷

"The root uha means to annihilate, to destroy. The disease occurs almost exclusively in the abdomen, and is a chronic affection, attacking men and women. Outward applications were chiefly adopted for its removal; but along with these internal remedies were also prescribed

³ Virchow's Archiv, Bd. 85, S. 343-354.⁴ Archiv für physiol. Heilkunde, Bd. xiii, S. 556.⁵ Volkmann's Sammlung klinische Vorträge, Nr. 255, 256, S. 47.⁶ Op. cit., S. 55.⁷ Compare Brugsch Papyrus (see Fig. 3 of this paper) and the description of the disease rendered there as "Ouchet" and "Uhtu."

¹ Met, plural metu, signifies the passages, muscles, nerves, vessels.
² "Beiträge zur Erklärung des Papyrus Ebers, des hermetischen Buches über die Arzneimittel der alten Ägypter," Virchow's Archiv, Bd. 85, 1881.

often 'to be taken warm.' The disease occurs besides 'in each limb' and 'in a person's flesh (body).' In one passage further 'the true uha disease' is mentioned, and by that is meant, in my opinion, virtually the uha disease in the abdomen, as distinguished from the same affection 'in each limb.' A certain basis for its determination is afforded by two places in which the uha disease (for the very first time in our Papyrus) is mentioned; they may be found on page 23 of the Papyrus. In one of these purgatives are expressly ordered for the accompanying persistent and obstinate constipation; in the other it is said of the disease that it 'lies in the body pressing heavily.' From these facts it appears to me as if one should understand by the uha disease the chronic constipation and meteorismus (flatulence) of the lower abdomen so common in *Chlorosis Egyptiaca*. 'The constipation,' says Lutz,⁸ 'is very difficult to overcome by purgative medicines, and leads not uncommonly to considerable fecal obstruction; the patients feel it to be a very burdensome symptom, whose removal brings them great relief.' The uha disease in each limb or in a person's flesh (body) can be explained either as being swellings of perhaps a gouty nature, or as the uneasiness experienced in the whole body in the condition which I have supposed to exist—there lies a heaviness in all the limbs.

"Now, a passage occurs on page LVII, line 4, of the Papyrus, which can scarcely be brought into harmony with our explanation; there we have, namely, the mention of the Uhat disease in the eye. I believe with Lüring that here, as in line 10, we should not read 'Uhat' but nehat = squinting, and that we are confronted by a mistake of the copyist. In most passages, indeed, where this disease is mentioned at all, we do not find Uha but its plural Uhaui; only in two (page xxv, line 9, and page xxvii, line 16), is the singular to be found, and then it is on both occasions not Uhat but Uha. It appears thus, in fact, as if we merely had to do on page LVII, line 4, with a mistake of the copyist.

"UXEDU = PAINFUL SWELLING.

"The word Uxed is, according to Brugsch 'not unconnected with pinguis, crassus, obesus.' Now we are taught by a collation of all the passages in which this word is mentioned, in our Papyrus, that the disease truly occurs in the most varied parts of the body, but especially and principally in the abdomen; after that, in the mouth also, in the legs, on the rump, in the back, heart, urinary passage, eye, trembling arm, in the teeth, in the head, and in all the limbs; suppurating wounds which arise from uxedu are also mentioned. They occur, besides, with no great infrequency in connection with the *aaa* disease, and this appears to me to give a certain basis for the explanation of the word.

"All things considered, the conclusion is well established that one must understand by this expression, first of all, the painful swelling of the abdomen, which appears with such extraordinary frequency, and at a very early stage of *chlorosis Egyptiaca*; 'the whole lower abdomen,' says Lutz,⁹ 'is painful, with or without pressure being exercised, and is also commonly distended by flatulence.' The general explanation given answers also excellently for the different parts of the body in which the uxedu otherwise occurs; the special meaning, however, which is to be given to this word in connection with the individual situations must remain undetermined, on account of the quite inadequate description at our command."

EBERS PAPYRUS: EYE DISEASE.

The chapter on eye diseases is an extensive one, as we might expect from the prevalence of such disorders in Egypt at the present time, and from the obvious character of such affections. This chapter extends from the bottom of page 55 of the Papyrus to the thirteenth line of page 64. This chapter has been translated in full by Ebers himself in a special monograph published in 1889.¹⁰ He gives a translation, clause by clause, of the hieratic text, into phonetics (or sometimes into hieroglyphs), and into German. There are also elaborate annotations on various words as to their meaning, and especially on the names of the drugs, diseases, etc., mentioned. In the second portion of the monograph he goes over the same ground, giving a continuous translation into German alone. In such a chapter we naturally look to see how far the discrimination of different forms of disease extended; evidently the knowledge of this subject was very considerable. In addition to such general terms as blindness, blood in the eye, inflammation, remedies to improve the vision, and remedies to be used at certain seasons of the year, the following more definite disorders are recognised by Ebers, as indicated by the Egyptian names descriptive of the disorders (several occur repeatedly): hydrophthalmus, staphyloma, infiltration of cornea, muscae volitantes, lippitudo, stillitidium, cataract, leucoma, iritis, ectropium, entropium, trichiasis, pinguecula or xanthelasma (fat in the eyes), granulations, chalazion, contracted pupil, blepharitis, pterygion, abscess of lids, chemosis, cancer, dacryocystitis, ophthalmoplegia.

The following short extracts, selected as specimens, are rendered from Ebers' translation. The remedies, however complex and potent, do not seem to have superseded entirely

the necessity for reciting formulæ of words over the preparations.¹¹ Thus we have on page 60 of the Papyrus:

"ANOTHER (REMEDY) FOR DRIVING AWAY THE CATARACT IN THE EYES.—Come verdigris ointment! come verdigris ointment! Come thou verdant one! Come efflux from the eyes of Horus! Come thou effusion from the eyes of the god Tum! Come ye stuffs, ye who proceed from Osiris! Come to him (the patient) and take from him the water, the pus, the blood, the pain in the eye, the chemosis, the blindness, the flow of matter, which are worked there by the god of the inflammations, of each kind of death, of each kind of pain, and of all evil things which are found in these eyes—SO MANY OF THEM there are too. SO IT IS TO BE RECITED OVER THE VERDIGRIS OINTMENT, DISSOLVED IN BEETLE HONEY, WITH WHICH WE SHOULD MIX CYPHERUS, WHICH THEN SHOULD BE LAID UPON THE EYES IN THE PRESCRIBED FASHION."

Another specimen of incantation, over the remedies to be used, is found on page 58 of the Papyrus:—

"ANOTHER, FOR REMOVING THE WHITE-GROWTH IN THE EYES. (Albugo or Leucoma). When it thunders in the southern sky towards evening, and a tempest rages in the northern sky, when the pillar of Osiris is thrown into the water, and the sailors of Ra brandish their weapons, and thereby heads fall into the water, who is there then who catches them and finds them? It is I, who catch them; it is I, who find them; whilst I bring to you your heads, whilst I raise your necks, whilst I set in its place that which has been cut from you. So do I conduct you, in order that the god of fever and of every kind of death may be driven away," etc. "WHEN THESE WORDS HAVE BEEN RECITED OVER TORTOISE-BRAIN MIXED WITH HONEY, IT SHOULD BE APPLIED TO THE EYES."

The following extract shows how the section on eye diseases begins, on page 55 of Papyrus, and two or three of the first prescriptions are also given:—

"HERE BEGINS THE BOOK OF THE EYES. REMEDIES AGAINST THE GROWTH OF DISEASE WHICH ONE FINDS IN THE BLOOD IN THE EYE (in the blood filling the eye). Upper Egyptian soda or saltpetre, 1 Ro; honey, 1 Ro or Hin; caraway, 1 Ro; Tooth grain—a sort of incense, 1 Ro.

"TO TREAT THE WATER IN THE EYE (Hydrophthalmus): Incense, 1 Ro; myrrh, 1 Ro; seeds or berries, 1 Ro; xntë green earth, 1 Ro.

"TREATMENT OF THE DISEASE OF THE GROWTH (Staphyloma): Lower Egyptian soda, 1 Ro; minium, 1 Ro; green eye-paint, probably verdigris, 1 Ro; honey, 1 Ro or 1 Hin."

Professor Macalister calls attention to the sources from which two of the eye prescriptions were derived. "One ointment for the eye, whose formula he (the writer of the Papyrus) gives, was invented by Chui, the President of the College (page 63 of Papyrus, line 4); another is a foreign prescription in use among the Phœnicians at Byblus." (Page 63 of Papyrus, line 8).

The concluding clause in the following prescription is very encouraging (page 63 of Papyrus):

"PREPARE STILL ANOTHER (APPLICATION) FOR REMOVING A SWELLING ON THE NOSE (disease of tear-sac; Dacryocystitis): Antimony, 1 Ro; Arabian wood powder? 1 Ro; dried myrrh, 1 Ro; honey, 1 Ro or 1 Hin. Let this be rubbed into the eye for four days. Mark this well:—for it is certainly the right thing (to do)."

The following remedy, although specified for certain seasons, seems really to apply to the whole Egyptian year (page 61 of Papyrus):

"ANOTHER EYE OINTMENT, TO BE USED IN THE SEASONS OF THE HEAT (summer), OF THE SPROUTING (winter), AND OF THE OVERFLOWING OR INUNDATION (that is, in all three seasons or four-monthly periods of the Egyptian year).—Let one triturate antimony in the morning with the fat of the Trp-goose, without, however, bringing the latter to the fire, and the eye may be anointed with this at night."

The next prescription is a striking one, not only from its universal application, but also from the use in it of a human brain, to which, no doubt, its potency was ascribed (page 61 of Papyrus):

"OTHER REMEDIES FOR THE EYE, IN WHICH ANYTHING AT ALL HAS BECOME DISEASED.—Let one take a human brain and divide it in half. Let one-half of it be added to honey, and the eye be anointed with this in the evening; the other half should be dried and finely ground, and it may then be used for anointing the eye in the morning."

The widespread idea of some connection between the ear and the eye, as shown by the boring of the ears and the wearing of earrings for eye affections, which is still practised, receives an interesting illustration in the following old Egyptian prescription (page 57 of Papyrus):

"ANOTHER REMEDY FOR BLINDNESS.—A pig's eyes, take the water found therein; antimony, 1 Ro; red lead, 1 Ro; wild honey, 1 Ro. Mix and powder finely, inject this into the ear of the patient, thereby he will become well at once."

This chapter of the Ebers Papyrus has been discussed in a monograph by Hirschberg, "Ägypten Geschichtliche Studien eines Augenarztes," Leipzig, 1890, reprinted from the *Deutsche medicinische Wochenschrift* for 1889, but I have not seen these papers.

VASCULAR SYSTEM.

There is an account of the vascular system in this Papyrus

¹¹ Compare the incantations and magical formulæ in the Berlin Medical Papyrus, the British Museum Medical Papyrus, and others referred to in the sequel.

⁸ Volkmann's Sammlung klinische Vorträge, Nos. 255, 256, S. 40.

⁹ Volkmann's Sammlung klinische Vorträge, No. 255, 256, S. 42.

¹⁰ Papyrus Ebers: Die Maasse und das Kapitel ueber die Augenkrankheiten von Georg Ebers. Leipzig, 1889. Des xi Bandes der Abhandlungen der philologisch-historischen Classe der Könige Sächsischen Gesellschaft der Wissenschaften, No 2 und 3.

which should be compared with a similar section in the Berlin Papyrus on page 15—the one copied in this paper (Fig. 3).¹² The subject is very difficult to understand, even in the French and German accounts, so that I avail myself the more willingly of Professor Alex. Macalister's summary.¹³ He says: "The section of this Papyrus, which begins on the ninety-ninth page, is a treatise on the vascular system entitled '*The beginning of the mystery of medicine—knowledge of the motions of the heart, and knowledge of the heart.*'" '*There are vessels from it to all parts which the physician Nebsext, priest and Lord of Healing, describes. All these he points out with his fingers to the head, to the neck, to the hand, to the epigastrium, to the arms, to the legs: all he enumerates from the heart, because the vessels are from it to all parts: as he describes, it is the beginning of the vessels to each organ.*' The author then proceeds to enumerate the distribution of these vessels from the heart, and first gives those ascending to the head. Digressing from the vessels to the animal spirits, Nebsext tells us that these vital spirits enter one nostril, penetrate to the heart through the tube which carries them into the body-cavity. A little further on he states another singular hypothesis concerning these vital spirits; for, speaking of the ears, he says: '*There are four vessels going to the two ears together, two on the right side, two on the left side, carrying the vital spirit into the one right ear, the breath of death into the left ear, that is, it enters on the right-hand side, the breath of death enters on the left-hand side.*' Nebsext next describes the vessels of the upper and lower limbs and the arteries of the viscera."

APHORISTIC STYLE.

Professor Alex. Macalister goes on further to raise the question as to whether the Hippocratic school of medicine may not have acquired their aphoristic style from Egyptian medical writings. In connection with the Berlin Medical Papyrus, evidence will be subsequently adduced to show that an actual prescription found there may be traced in one of the Hippocratic treatises. He says: "The anatomical description is followed by a series of aphorisms regarding the pathology of vascular disease, arranged in separate sentences; *protrasis* and *apodosis*, beginning respectively with *Ar* and *Pu*, reminding us of the *ἄν με* of Hippocrates; indeed, there is such a Hippocratic aspect about these, that one cannot resist the conviction that we have reached here the source of much of the Hippocratic learning. It is possible that the earlier phrase may be interrogative and the latter an answer, but it is more likely that the *protrasis* is conditional than interrogative. They relate to such conditions as syncope, cardiac disturbances from abdominal distension, enlargement of the heart, etc. There are twenty-two such queries; thus there is an allusion to valvular stenosis in one which says, '*If the orifice of the heart be turned back, then constricted is the mouth of the heart.*'"

WEIGHTS AND MEASURES: PHARMACY.

Another subject still requires to be mentioned, namely, the weights and measures in the Ebers Papyrus. This is obviously of great importance in connection with the prescriptions given; but its value is not limited to this, as it has relation to the whole theory of the weights, measures, and fractions used by the Egyptians. In the prefaces both of Vol. i and ii of the facsimile of the Papyrus this subject is discussed shortly (p. 18 and p. vii respectively), but Ebers subsequently wrote a special monograph¹⁴ dealing with this matter (*Die Gewichte und Hohlmasse des Papyrus Ebers*). These questions, however, are of too technical a nature to detain us here. The views of Ebers on this subject have not been universally accepted, and just lately Mr. F. L. Griffith has taken up the discussion. After a study of "The Rhind Mathematical Papyrus," he went on to give the results of his inquiry into "The Metrology of the Medical Papyrus

Ebers."¹⁵ To these special memoirs reference must be made by all interested in this question.

The materia medica and pharmacy of the ancient Egyptians are pretty fully discussed in an important work on the history of pharmacy, by Dr. J. Berendes.¹⁶ Although the Ebers Papyrus is largely drawn upon, it is by no means the sole source of the author's review of the subject. He gives in the same book a short account of the views of Ebers on the weights and measures of the Ebers Papyrus. He likewise deals with the different pharmaceutical appliances used by the Egyptians, and he enumerates the different forms in which remedies were administered, both for internal and external use. The various remedies employed in medicine, whether derived from the animal, mineral, or vegetable kingdom, are also discussed, and poisons are likewise mentioned.

Before passing from the Ebers Papyrus, it is proper to refer to the widely-known novels written by Ebers, based on his study of Egyptian life and literature. In the *Egyptian Princess* an important character introduced is an Egyptian oculist. In *Uarda* there is also an Egyptian leech of scientific character: Nebsecht¹⁷ is represented as devoted to surgery and to the study of the heart, a specimen of a human heart being stolen for him for this purpose. He is likewise represented as privately deriding the efficacy of incantations, and as getting a blind pastophorus, Teta, to do the recitations, while he did the real surgery. In both of these novels, but particularly in the former, numerous notes are given bearing on the medical practice and knowledge of the Ancient Egyptians.

[To be continued.]

DEATH CERTIFICATION.

Evidence of Dr. John Tatham.—The Value of the Registration System.—Deaths of Young Children.—The Non-Registration of Stillborn Children and the Value of Infant Life.—Insufficient Information in Certificates.—Recommendations.—Evidence of Mr. Drew, of the Superintendent-Registrar of Whitechapel, and of the Clerk to the St. Pancras Burial Board.

At the resumed sitting of the Select Committee of the House of Commons on Death Certificates on Friday, the following evidence was taken:

DR. JOHN TATHAM, Lecturer on Hygiene to the Owens College, Medical Officer of Health for Manchester, said he believed the national system of registration of births and deaths to be a preventive measure of very great value, and that by educating the public and by impressing the lower classes with a higher notion of the value of human life, the system had been largely instrumental in effecting that general reduction in the death-rate which had taken place of late years. The city of Manchester contained more than half a million people, and about 12,500 died annually. The proportion of uncertified deaths to total deaths in Manchester had steadily decreased during recent years. From 1881-85 the proportion was 2.42 per cent; 1886-90, 2.32 per cent.; and in the two subsequent years it fell to 1.88 per cent., or just double the rate obtaining in London. In a preventive sense, it was amongst young children that the due certification of death was of the greatest importance, but unfortunately it was amongst those young children that the largest proportion of uncertified deaths occurred. During the last two years there died in Manchester 6,358 infants who had not completed their first year of life, and the deaths of 330, or 5.2 per cent of these were unattested by medical men. A long experience had convinced him that the failure of parents to procure medical attendance for their children was due in the majority of cases not to cruelty or criminal intent, but rather to the slight value which persons of the lower classes attached to infant life. He was confident that this feeling was encouraged and promoted by the fact that in England the registration of stillborn children was not yet

¹² Compare also the account given by M. Chabas of the doctrine of vessels; *Mélanges Egyptologiques*, Paris, 1862, pp. 63, 64; and also by Brugsch, in his account of his facsimile, page 15 of the Berlin Papyrus.

¹³ Abstract of paper on "Anatomical and Medical Knowledge of Ancient Egypt," Royal Institution of Great Britain, March 5th, 1886.

¹⁴ *Papyrus Ebers: Die Masse und das Kapitel über die Augenkrankheiten von Georg Ebers*. Leipzig, 1889. Des xi Bandes der Abhandlungen der philologisch-historischen Classe der Könige Sächsischen Gesellschaft der Wissenschaften, No. 2 und 3.

¹⁵ *Proceedings of the Society of Biblical Archaeology* (May 5th, 1891), Lond., 1891, vol. xiii, p. 392. The Rhind Papyrus is discussed in vol. xiii, p. 328, and vol. xiv, p. 26.

¹⁶ *Die Pharmacie bei den alten Culturvölkern. Historisch-Kritische Studien*. Halle, 1891. (S. 55-81.)

¹⁷ He is represented in the novel as the grandson of the great Nebsext, quoted from in the Ebers Papyrus, as giving a description of the vascular system (see quotation already given).