

The Hygiene and Medicine of the Talmud, a University of Texas Presentation, 1901

INTRODUCTION

The following is one of several documents that summarize Jewish medicine according to Jewish traditions and “laws.” Fortunately, little has changed in traditional Jewish tradition over the centuries in terms of documents and source of the written word. The following presentation entitled “The Hygiene and Medicine of the Talmud” was made by Rabbi Henry Cohen (1888-1952) at the University of Texas, and published in The University of Texas Record, vol. 3 (Dec. 1901), pp. 332-347.

I will later apply this to the study of New York first Jewish physician. For now, suffice it to say that most if not all of that which Rabbi Cohen has stated remains unchanged. My interpretation of the Jewish doctor of the Hudson Valley will review this as best as possible based upon three questions I always begin this queries with:

- *What defines the traditional practice of medicine the physician is engaged in?*
- *What defines the personal viewpoints the physician has and how do these influence what is being practiced at the time?*
- *What defines the “popular culture” or “new age” beliefs for the time and how if at all do any of these influence the traditional medicine being practiced by a Jewish physician?*

For Jewish medicine, the first and third questions are very important to understand when trying to define what type of physician we are dealing with. Jewish doctors often tread a fairly long rope trying to balance their Jewish philosophy and traditions with the other things being taught to them by non-Jewish physicians on occasions. In this case is up to the Jewish physician in the end to determine how to practice best medicine when it comes to applying the “most modern” way. The Jewish physician during colonial times is especially concerned with how any new discoveries will fit in with Talmud tradition and Jewish laws. For example, is the claim about electric cure comparable to traditional teachings like those of the Qabala? Sometimes, the more “popular culture” a particular practice is, the harder it can be sometimes to accept it as being something that can be used, promoted and practiced. On the other hand, there is that

Some important points to note:

- *(San., 39:1-2.): bloodletting can be practiced by a physician, but according to Daniel’s story the cleaner and unscarred the skin, the healthier the body. Isaac Marks can blood-let. (see pp. 10-11). Although this could be related to the Mosaic Code on blood and contamination in foodways and practices, this was not stated by Rabbi Cohen.*
- *Pretty much all of the Hygiene of Pentateuch writings remain valid.*
- *The book of Leviticus with regard to sanitation remains unchanged.*

- *Those parts of Mosaic Law and Mishnaic Rabbi tradition as these relate to hygiene and sanitation also remain unchanged pretty much.*
- *Contagion and disease is a predominant part of some of the disease philosophies; thus the emphasis on cleanliness and the practice of burning of the remains of some ill who are deceased.*
- *(Ab. Z., 29:1.) Talmudic recipes are primarily herbal, but some traditions allows symbolic animal parts and other non-botanical ingredients for antipathy and sympathy related effects. (However note, Cohen links the use of an animal part such as a liver for treating its bite, and likens this to homeopathy; the similarities are obvious, but the underlying metaphysical reasoning is off.)*
- *Large meals and exercise go hand in hand.*
- *There is also a belief that event though you are the doctor, and may be right based upon your philosophy, teachings and tradition, whatever the patient wants, he/she should get. Let G-d be the one decide if the patient's demands are correct or not.*

If the patient desires something, and the physician thinks he is not to have it, the former is to be gratified, because (Prov., 14:10) "The heart knows its own bitterness." (Yoma, 83:1.)

The following list is in the beginning for researchers' convenience.

LIST

The following 39 medical topics are discussed in the Talmud.

1. fevers (Ned., 41:1)
2. malaria (Git, 69:1)
3. malignant throat trouble, probably diphtheria (Ber., 8:1)
4. tonsillitis (Git, 69:1)
5. worms, parasites (Sab., 109:2)
6. jaundice (Sab., 109:2)
7. gout (Sota, 10:1)
8. dropsy (Sab., 33:1)
9. stone in the bladder (B. M., 85:1)
10. cardiacus (Git, 67:2)
11. hemorrhage of the lungs (Git., 69:1)
12. cancer (Ab. Z., 10:2)
13. gastritis (B. K., 80:1)
14. colic (Ned., 31:2)
15. flatulence (Pes., 116:1)

16. disease caused by drinking the froth of liquids (Git., 69:1)
17. hemorrhoids (Ber., 55:1)
18. scorbutus (Ab. Z., 28:1)
19. hip disease (Git, 69:2) [rheumatism?]
20. sexual diseases, syphilis, etc. (Sab., 110:1-2)
21. boils (Ab. Z., 21:1)
22. itch (Bech., 41:1)
23. carbuncle (Ab. Z., 28:1)
24. polypus (Ket, 77:1)
25. glanders (Ket, 77:2)
26. hydrophobia (Hag., 3:2)
27. congestion of the brain (Git., 68:4)
28. impotence (Git, 70:1)
29. convulsions (HuL, 105:2)
30. epilepsy (Sab., 61:1)
31. bulimia (Yoma, 83:2)
32. nervousness manifested by the thought of impending danger (Git., 69:2)
33. wounds (Ab. Z., 28:17)
34. earache
35. toothache
36. headache
37. bleeding of the nose (Git., 69:1)
38. pterygium ophthalmia (Git, 69:1)
39. blindness, by day or night (Git, 69:1)

PUBLISHED LECTURE

COHEN

HYGIENE AND MEDICINE OF THE TALMUD

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**A Lecture Delivered at the Medical
Department, University of Texas, Galveston,
Texas, by**

RABBI HENRY COHEN.

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**THE HYGIENE AND MEDICINE OF THE
TALMUD**

For the purpose of this article, it will suffice to say, that the Talmud, which includes the Mishna, or Oral Law, and the Gemara, or Commentary, literally "the completion" of the Mishna, which is itself a commentary on the Pentateuch, or Written Law, is the compendium of Jewish doctrine, containing the history, thought, manners and customs of the people from every standpoint during the better part of a thousand years between the return from the Babylonian Captivity and the fifth century A. C. E. The Mishna is written in Hebrew not the pure Hebrew of the Prophets, but a language understood of the people and the Gemara in Aramaic, the language of the Jewish populace of those later days; while the contact with Western nations introduced many Greek and Latin words into the vernacular.

There are two recensions of the Talmud, the Babylonian, which is the more complete, and the Palestinian, which is the earlier; the former is at least four times as full as the latter.

The Babylonian Talmud contains thirty-six treatises under the six general heads of the Mishna, and is published in twelve folio volumes, the pagination of which, to facilitate reference, is uniform in all editions. This work of a millenium of the manners and morals of the Jewish people must naturally touch upon the inmost life of those whose history it portrays, and therefore, in the exposition of the Written Law incidental to which is the ethical and legal philosophy of the Rabbis and the post-biblical history of the Israelites and their contemporaries are also numberless references to hygiene and medicine. The result of an inquiry into this latter branch will convey an idea of the importance in which medico-sanitation was held at that time, as well as the Talmudic conception of dietetics, anatomy, physiology, surgery, pathology, and therapeutics.

Inasmuch as the Talmud in its entirety is a commentary on the Mosaic Code, it will be pertinent to review the Hygiene of the

Pentateuch. The Book of Leviticus is replete with commands of great sanitary value. The use of certain animals for food was forbidden (11th Chap.) : quadrupeds that did not divide the hoof and chew the cud, thus bespeaking digestive difficulties, fish that had not fins and scales, birds that eat carrion, aquatic, winged, creeping insects. Swine particularly were considered unclean, a foreshadowing of parasitic impurity. Of the inestimable value of these prohibitions upon the Israelite, of the lessons of self-denial, self-control, and self-conquest that they taught, making his religion a matter of every-day life, and thus moulding his character to fulfill his mission, need not be dwelt upon here.

Personal uncleanliness was guarded against, and to this end the medical knowledge of Egypt, tabulated reports of which were kept, was elaborated and developed. Special laws referring to the ablutionary purification of women were enacted (Lev., 15th Chap.), which, with all other hygienic and dietary rules, obtain, more or less, at the present time.

Salutary tenets concerning prevention of disease in general were studied, and the isolation of an infected patient was compulsory. (Lev., 13:46.) Leprosy, a thorough diagnosis of which is found in Lev., 13th Chap., was guarded against as an abominable plague, and the biblical instructions relating thereto are worthy of our own age. Water left uncovered was considered impure (Num., 19:15), and the fighting of disease by fire was enjoined (Num., 31:23). The total destruction of infected dwellings and wooden household utensils was a matter of necessity (Lev., 14:45), and running water was recommended for ablutions. (Lev., 15:13.)

For fear of contagion, as well as, perhaps, for other reasons, contact with the dead was forbidden (Num., 19:11) ; stringent purification is prescribed for the violation of this law.

The Mosaic canon, by its prohibition of the use of blood (Lev., 17:10-14; Deut, 12:23, 24), held that there was a communicability of disease between cattle and men; Dr. Koch to the contrary notwithstanding. The examination of the intestines was compulsory, so that nothing deleterious should be eaten (Lev., 7:23) ; diseased cattle of any kind were rejected as food. Animals that died a natural death (Lev., 22:8), as well as those whose death had been caused by an attack of another animal, were also inhibited. (Exodus, 22:31.)

Cattle in articulo mortis were not to be killed for food, nor was

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the amputated limb of a living animal to be eaten. (Deut., 12:23.) For humane and hygienic reasons blood spilt upon the ground was covered (Lev., 17:13), and the "seething of a kid in the milk of its mother" (Exodus, 23 :19; Deut, 14:21) an amplification of which law is the Talmudic interdiction of eating meat and butter together is forbidden.

Camp life necessitated the burying of excrement, offal, ordure, and all refuse, and laws to this effect were stringent. (Deut., 23:13.)

In brief, if we may judge by the Mosaic dispensation and by the later history of the Jews as recorded in certain verses in Holy Writ, the priests and prophets moral teachers were also the ‘ repositories of medical science (II Kings, 5:10; II Chron., 16:12), advocating: Mens Sana in Corpore Sano.

The sanitation and hygiene of the Bible was, as was natural, amplified and developed in the Talmud; fifteen hundred years intervening between the Mosaic Law and the Mishnaic Rabbis. The whole process, for instance, of the slaughter and examination of animals for food is minutely explained in section Hulin, to the very size and keenness of the knife, the cutting of the trachea and esophagus to insure section of the large vessels of the neck for the purpose of emptying the blood from the body, the subsequent examination of the lungs and heart to determine whether there be adhesions, one lobe to the other, or the whole or part to the diaphragm or chest wall, whether perforations existed and to what extent these defects were tubercular, animal phthisis and tuberculosis being guarded against, from the conviction of the communicability of disease from cattle to man. Further, the detail concerning the mode of examination for perforations, namely, the inflation of the lungs while in water and the tell-tale bubble as a consequence; of the removal of certain veins and arteries and of the refusal of all animals for food that did not meet with the foregoing hygienic requirements : this and more were expounded by the rabbis. The apprehension of man becoming a part of what he eats and absorbing the qualities of his food, as well as the idea of the comparatively slow putrefaction of bloodless meat and its better preservation on that account, resulted in the law for salting and soaking the raw flesh. The deduction from the biblical command, “Thou shalt not seethe the kid in its mother’s milk,” made the eating of mixed oleaginous matter, such as meat and milk, or meat and butter, appear to be gross nourishment, and hence forbidden. The consequence of eating prohibited fish seems to have appealed to the later rabbis who believed that typhoid could be spread by the consumption of shell-fish ; oysters, for instance, being cultivated in the ooze and slime of waterways.

The practice of circumcision and its concomitant use of styptics, as referred to in the Talmud, presuppose a knowledge of anatomy, surgery and therapeutics, the removal of the foreskin and the underlying mucous membrane, the pressing back of the flesh to the corona glandis, the caution against lacerating the fraenum, and of the health of the child before the operation, and its care after. The Mishnaic section Taharoth contains whole pages of pathological conditions and their therapeutics, hygienic references, sanitary ‘ suggestions, and the uses of herbs, etc., for medicinal purposes. A glance at the contents of this section in its subdivisions will not come amiss.

Kelim: Vessels. Uncleanliness of vessels (chiefly of capacity) made of wood, stone, earth, leather, bone, metal or glass, and of all manner of utensils.

Oholoth : Tents. Uncleanliness from contact with the dead. (Num., 19:11-22.) The tent or house in which a man died and everything within it are pronounced unclean. Under this head are a variety of circumstances relating to the degrees of Uncleanliness, distances at which people may receive infection from dead bodies, etc. Of pollutions from sepulchres, and places where dead bodies formerly buried have been exhumed. Of Uncleanliness in dwelling houses.

Negaim: Leprosy in men and its infection to garments and houses. (Lev., xiii-xiv.) Rules for discerning signs of leprosy. At what time of the day infected persons are to be viewed. How the examination is to be made. No man may pronounce upon his own case; the priest only is to pronounce upon the Uncleanliness. Articles touched by the leper unclean. Of leprosy in garments. Garments made of camel's hair and sheep's wool mixed were never infected, providing there was more of the former than the latter. Of leprosy in houses. Method of examining them. Of infection occasioned by a leper's entering a house, or walking in a crowd. The purification of lepers. Details concerning remedial agents in leprosy. Lepers prohibited to marry.

Taharoth: Purifications. This subdivision relates to minor

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impurities lasting for a day only, and the ablutions necessary for their removal. The cleanliness of the olive press and the wine press.

Mikavoth: Pools of Water. (Lev., 11:36.) Of pools of water in which those that are unclean may bathe. What constitutes clean water and what amount is necessary for a ritual bath.

Nidda: Menstrual Pollutions. The separation of women during their menses and after childbirth, etc.

Zabim: Seminal uncleanliness in men. (Lev., 15 :1-19.) How these pollutions operate so as to affect other matter.

Tebul Yom : Immersion on the day of uncleanliness. Relating to the ablutions of the priest.

Yadaim : Hands. Relating to the washing of the hands before eating, and of other bodily cleanliness.

After a perusal of this extract it is not to be wondered at that the rabbis pronounced a dictum that has its force today: "Cleanliness is next to godliness." (Ab. Z., 20:2.)

Where health was concerned everything was of importance; the number of cubic feet of air per pupil in the school room, the examination into the sanitary condition of highways and streets as well as manufactories and workshops, and the burning of waste and offal.

From the modern standpoint, the Talmudic "Theory and Practice of Medicine" may appear crude, strange and occasionally unreasonable. Medicine, like other sciences, is a growth, and its evolution and development is a reflex of its time. Physicians lay great store by the knowledge of Hippocrates, Aristotle and Galen, yet the Talmud contains medical matter not to be found in the works of either of these masters.

Much, however, was the common property of Judea, Greece and Rome, and the marvel remains, not how empiric the practitioners were, but how much they really knew, even from the standpoint of the twentieth century. A careful

reading of the Talmud throws light upon the special Pathology of the age, and its Therapeutics. Among other diseases, the diagnosis of which cannot be ascertained with certainty today, are the following:

Malignant throat trouble, probably diphtheria (Ber., 8:1); fevers (Ned., 41:1); jaundice (Sab., 109:2); boulemia (Yoma, 83:2); colic (Ned., 31:2); disease caused by drinking the froth of liquids (Git., 69:1); nervousness manifested by the thought of

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impending danger (Git., 69:2); hydrophobia (Hag., 3:2); gastritis (B. K., 80:1); bleeding of the nose (Git., 69:1); hemorrhage of the lungs (Git., 69:1); congestion of the brain (Git., 68:4); dropsy (Sab., 33:1); sexual diseases, syphilis, etc. (Sab., 110:1-2); itch (Bech., 41:1); malaria (Git, 69:1); epilepsy (Sab., 61:1); carbuncle (Ab. Z., 28:1); impotence (Git, 70:1); glanders (Ket, 77:2); pterygium ophthalmia (Git, 69:1); flatulence (Pes., 116:1); polypus (Ket, 77:1); scorbutus (Ab. Z., 28:1); convulsions (HuL, 105:2); hemorrhoids (Ber., 55:1); blindness, by day or night (Git, 69:1); worms, parasites (Sab., 109:2); tonsilitis (Git, 69:1); cancer (Ab. Z., 10:2); boils (Ab. Z., 21:1); gout (Sota, 10:1); wounds (Ab. Z., 28:17); stone in the bladder (B. M., 85:1); cardiacus (Git, 67:2); hip disease (Git, 69:2); earache, toothache and headache were common complaints, as they are today.

Talmudic pathology is of quaint interest to modern physicians: All animals designated in scripture "male and female" have among them individuals of doubtful sex androgynes, or false hermaphrodite. (Yeb., 88:2.) The rabbis could not decide to what sex an androgynes belonged; but they agreed respecting the sex of a tumtim true hermaphrodite. (Bic. Mishna, 4:5.)

Cardiacus is produced by drinking immoderately of new wine direct from the wine press. As a natural remedy, take lean meat roasted on coals and diluted wine. (Git, 67:2.) Rabbi Hanina said: "Why is there not a certain infectious disease (rothon, ostensibly a term for both scarlet fever and measles) in Babylon? Because the inhabitants are accustomed to eat mangold and to drink a beverage prepared from corn-rose. And why are there no lepers in Babylon? Because the people are in the habit of eating mangold and bathing in the Euphrates." The symptoms of rothon are: Lachrymose eyes, running nostrils, flowing saliva. (Ket, 77:2.) Onions must have been risky eating. If a man has eaten onions in the evening and is found dead the next morning, there is no need to inquire of the cause of his death. (Era., 29:1.) These six things are good symptoms in an invalid: Sneezing, perspiration, evacuation, seminal emission, sleep and dreaming. {Ber., 57:2.) The most painful of all deaths is that by quinsy, the pain of which is like the forcible extraction of prickly thorns from wool, or like a thick rope being drawn through a small aperture. (Ber., 8:1.) Dropsy may result from sexual excess or from insufficient food. (Sab., 33:1.) These things cause hemorrhoids: Eating cane leaves, the foliage and tendrils of the vine, the palate of cattle, the backbones of fish, half-cooked salt fish and wine lees. (Ber., 55:1.)

Rabbi Samuel said : “We know remedies for all maladies except three : that induced by unripe dates on an empty stomach ; that caused by wearing a damp linen girdle round one’s loins; and that occasioned by falling asleep after meals without having first walked a distance of at least four cubits.” (B. M., 113.2.) The Talmud mentions a two-headed child (Mena., 37:1), that the sense of taste was destroyed in the aged (Sab., 152:1), and that the function of the kidneys was known. (Ber., 61 :1.)

There are five symptoms in a rabid dog : its mouth is continually open, its saliva flows freely, its ears dangle, its tail is held between its legs, and it walks in by-paths. According to Rabbi Samuel, the animal is to be destroyed by means of an arrow or a knife, thrown at it; but personal contact with it must be shunned. Injury is the result of contact; death that of a bite. (Yoma., 83:2.)

An anemic condition is referred to (Sab., 134:1), as well as discoloration of the teeth, caused by fasting. (Hag., 22:2.)

Therapeutic agents in Talmudic times were largely herbal, and considering the limited pharmacopoeia, the rabbis did much with little. For asthma, it says, take fennel, mint, and wormwood, and for convulsions after childbirth, take the same in spirits. (Ab. Z., 29:1.)

The Holy One, blessed be He, created nothing in the world without a purpose. He created the snail or leech as a remedy for contusions; the fly for the sting of bees; the gnat for the bite of a serpent; the serpent for the cure of a scab; and the lizard for the sting of a scorpion. (Sab., 77:2.)

For cardiacus, if it be the result of excessively hot temperature, and if it be of several days’ standing, cut up a black hen longitudinally and latitudinally, and apply it to the upper part of the head, after it has been closely shaven; and when it holds firmly to the skin, let the patient be placed up to his neck in water till he feels faint. Let him then be taken out and allowed to rest; let him be given lean meat roasted on coals, and diluted wine. If the malady be produced by a cold, give him fat meat roasted on coals and undiluted wine. (Git., 67:2.) In jaundice, feed the patient with ass’s flesh. Whoever is bitten by a mad dog, may be fed with the left lobe of the dog’s liver (Yoma, 84:1) ; evidently an early instance

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of homeopathy, *similia similibus curantur*, and, perhaps, a foreshadowing of the modern discovery of the destructive influence of bile on various toxic agents.

For the bite of a serpent, a hen may be cut up and applied to the wound; herbs may also be used for the same purpose. (Yoma., 83:2.) For continued fever, the weight in sea-salt of a brand-new souz (coin) suspended on a papyrus fibre round the patient’s neck so that it rests in the hollow in front. For tertian fever, take seven small grapes from seven

different vines and seven grains of caraway seed, and tie them to the hollow in front of the neck with a papyrus fibre. (Sab., 66:2.) It may be here remarked, that seven was a sacred number.

Rabbi Yochanan, who suffered from scurvy, applied to a Gentile matron for a remedy, which she prepared for him, namely: yeast, water, olive oil and salt. (Yoma., 84:1.)

Three effects are ascribed to Babylonian broth (which was made of mouldy bread, sour milk and salt) : It retards the action of the heart, it affects the eyesight, and emaciates the body. (Pes., 42:1.)

Black cummin is one of the sixty deadly drugs. (Ber., 40:1.)

Six things are a certain cure for sickness (nausea) : Cabbage, beet root, water distilled from dry moss, honey, the maw and the matrix of an animal and the left lobe of the liver. (Ber., 40:1.)

Five things are said concerning garlic: It nourishes, it warms inwardly, it brightens the complexion, it increases virility, and destroys cancer. (B. K., 82:1.)

Garlic was in high repute in Egypt, where the Israelites may have learned to appreciate it. Dioscorides (Book I, p. 80) says:

“The gods were recommended by their taste;

Such savoury deities must needs be good,

Which served at once for worship and for food/’

Juvenal makes this the point d’appui of one of his sarcasms

(Sat, 12):

“How Egypt, mad with superstition grown,

Makes gods of monsters, but too well is known.

'Tis mortal sin an onion to devour;

Each clove of garlic has a sacred power.

Religious nation, sure and blest abodes,

Where every garden is o'errun with gods."

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Aphasia seems to have been known in those days, for we read that five things restore the memory: Bread, baked upon coals; soft-boiled eggs without salt, the continued use of olive oil, mulled wine and plenty of salt. (Ab. Z., 29:1.)

As eating olives causes one to forget things that he has known for seventy years, so olive oil brings back to the memory events that happened seventy years before. (Ab. Z., 13:2.)

These things provoke a desperate relapse in a convalescent : Eating beef, fat meat, broiled meat, fowl, roasted eggs, cress, taking milk or cheese, or indulging in a bath. Some say also eating walnuts, others say eating cucumbers. (Ber., 57:2.)

Oil is a specific for wounds (B. M., 113:2), and asafoetida for cramps (Sab., 140:1). Plaster and ointment (Sab., 133:1) served much the same purpose as they do today. Cinnamon, myrrh and galbanum (Ket., 6:2) were used as disinfectants and deodorants, as well as in embalming.

From the assertion that the bathing season at the hot baths of Dirnsis lasted twenty-one days (Sab., 147:2), and that the hot baths at Tiberius had curative properties (Sab., 40:1), one may gather that there were fashionable watering places in those times also.

For rothom, which seems to have been a term for both scarlet fever and measles, the following curious treatment is recommended : Boil the leaves of nard, rock-roses, the bark of nut trees, the scrapings of hides, trefoil, and the shells of unripe dates in a large quantity of water. Remove the patient to a chamber built of marble, and therefore air-proof; or, failing this, into one of which the walls are seven bricks and a half thick, or about twenty-two hand-breadths.

When there, put three hundred bowls of this concoction upon his head till the scalp is sufficiently softened to allow of the application of the operator's knife. The brain laid bare, take four leaves of myrtle and insert one under each of the feet of the insect (which is the cause of the disease). This will prevent it, on being seized, from burying its nails in the membrane of the brain. Remove it with a pair of tweezers, and throw it into the fire, otherwise it will find its way back to the brain.

Rabbi Yochanan used to warn against contact with the insects that clung to such sufferers. Rabbi Zera would not sit where a current of air blew from the direction they happened to be. (Ket., 77:2.)

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As a specific for earache, oil obtained from the maybug and poured into the ear; for headache, an application of pitch; and for toothache, a paste of garlic, salt and oil, rubbed on the gum or pressed into the cavity. (Sab., 111:1; 90:1.) Pepper was a remedy for offensive breath (Sab., 64:2), and wine dropped into the eye for ophthalmia. (Sab., 108:2.) The most frequent cause of bodily complaints is the blood, and the best of all remedies is wine. (B. B., 58:2.)

In Anatomy and Physiology, the rabbis taught that the human body has two hundred and forty-eight members : thirty in the foot, i. e., six in each toe, ten in the ankle, two in the thigh, five in the knee, one in the hip, three in the hip-ball, eleven ribs, thirty bones in the hand, i. e., six in each finger, two in the fore-arm, two in the elbow, one in the upper arm, four in the shoulder. Thus we have one hundred and one on each side; to this add eighteen vertebrae in the spine, nine in the head, eight in the neck, six in the chest, and five in the loins. (Oh., 1:8.) Also the trachea, esophagus, lungs, bronchi, gall, meninges, placenta, matrix, spinal cord and spleen, and three hundred and sixty-five nerves and arteries. (Bech., 45 :1.) The regular period of gestation is two hundred and seventy-one to two hundred and seventy-three days. (Md., 38:1.) There are four more bones in the female than in the male. (Bee., 45:1.) A creature that has no bones in its body does not live more than twelve months. (Hullin, 58:1.)

During the first three months of pregnancy the child lies in the lower part of the uterus, during the next three it occupies the middle part, and during the last three it is in the upper part. (Nid., 31 :1.) The regular action of the excretory organs is the secret of a man's healthy looks, and a disordered stomach is the root of most diseases. (Ber., 55:1.) A fowl hatches in twenty-one days, and a pig bears in sixty. (Bech., 8:1.)

Simple surgery must have had a fair field, as lancing and cupping were prevalent. The rabbis taught : He that draws blood from his veins should not taste milk, cheese, onions or cress.

(Kid., 42:1.)

The Talmud teaches that in the biblical reference to Daniel and his three friends, the expression "not even the scar of a lancet was upon them" bespeaks the prevalence of blood-letting in the East, and the absence of the scar on the persons of Daniel and his com

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panions is a testimony to their health, of body, and their moral purity. (San., 39:1-2.)

Mention is made of a certain phlebotomist a noteworthy exception to the well-known rule (Kid., 82:2) that phlebotomists are to be regarded as morally depraved, and in the same class with goldsmiths, perfumers, hair-dressers, etc. Abba Umna by name, who had a special mantle with slits in the sleeves for females, so that he could surgically operate upon them without seeing their naked arms, while he himself wore a cloak over head and shoulders so that his own face could not be seen by them.

Even dental surgery was known. A man once vowed that he would not marry his sister's daughter, as she had lost a front tooth. On hearing this, Rabbi Ishmael supplied her with a gold tooth, and naturally the couple lived happily ever after. (Ned., 66:1.)

Two difficult operations are recorded: A tube passed through the cranium to the back of the eyes, for relief in ophthalmia (B. M., 85, B.) ; and the Caesarian section (Nid., 40:1). The opening of an abscess was common (Ab. Z., 28:1), and the dissection of a cadaver is also mentioned. (Ber., 45:1.) An instance is cited of the skin of the human face being anatomically removed and scientifically preserved so as to retain accurately the natural features and expression of the original. (Ab. Z., 11:2.)

Hygiene, both physical and dietetic, is preeminently a Talmudic safeguard, as the following extracts will show:

A man must not marry into a family that is subject to epilepsy or leprosy. (Yeb., 64:2.) Washing the hands before and after meals is obligatory. (Hul., 105:2.)

There are seven hundred species of fish, eight hundred of locusts and twenty-four of birds that are unclean, while the species of birds that are clean cannot be numbered. (Hul., 63:2.)

Until one is forty, eating is more advantageous than drinking. After that age, the rule is reversed. (Hul., 152 :1.) It were better to cut the hands off than to touch the eye, the nose, the mouth, the ear, without having first washed them. Unwashed hands may cause blindness, deafness, foulness of breath, or polypus. (Sab., 109:1.)

If two men immerse at the same time in an ablutionary-font containing exactly forty measures (gallons) of water (the lowest quantity required by law), they are both clean. If one after the other, the first is clean, and the second still unclean. (Git., 16:1.)

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Water that had been left uncovered should not be emptied in a public thoroughfare, nor be used for the purpose of laying the dust of the floor of the house, nor for making mortar. No man should allow his own beast nor that of his neighbor to drink of it, nor should any one bathe his face, hands, or feet in it for fear of the poison that it may contain. (Ab. Z., 30:2.)

If one eats and does not drink, his food turns to blood, one of the causes of derangement of the bowels. If one has eaten and does not walk four cubits before taking a siesta his food is not digested, and will cause, among other disorders, offensive breath. (Sab., 41:1.)

Seven liquids come under the generic term drink (Lev., xi:34) : Dew, water, wine, oil, blood, milk and honey. (Mach., 6:6.)

Three cups of wine during supper are recommended to aid digestion. (Ket., 8:2.)

A soft boiled egg gives more nourishment than six ounces of fine flour. (Ber., 44:2.)

The monthly eating of lentils prevents quinsy, but they are not to be eaten every day, as they taint the breath. Mustard eaten once in thirty days drives away sickness, but if taken every day the action of the heart is apt to be affected. (Ber., 40:1.)

He that is in the habit of eating small fish does not suffer from indigestion ; and what is more, such food contributes to the healthy development of the whole body. (Ber., 40:1.)

Hemorrhoids are induced by eating cane leaves, vine leaves, and tendrils, such unsalted parts of slain cattle as have a rough surface, the vertebra of fish, salt fish not sufficiently cooked, the lees of wine, etc., etc. (Ber., 55:1.)

Use no pot for cooking which another has already used. (Pes., 112:2.)

If one desires to eat a hearty meal, let him walk ten times a distance of four cubits, or four times a distance of ten cubits. (Ber., 23:2.)

A meal without broth is no meal. (Ber., 44:1.)

Meat counteracts loss of flesh, and red wine loss of blood. (Sab., 129:1.)

People should not converse during meals, lest the food go the wrong way. (Taanith, 5:2.)

Whoever wishes to escape derangement of the bowels should bathe habitually summer and winter. (Git., 70:1.)

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The use of lint is recommended for one of tender years, one with child, and one that suckles an infant. (Yeb., 12 :2.)

Oil of cloves has the effect of removing the hair and softening the skin. (Men., 86:1.)

Bad bread, fresh-brewed beverages, and pungent vegetables diminish evacuation and shrink the figure. (Pes., 42:1.)

Milt is good for the teeth but indigestible ; leeks are injurious to the teeth but good for digestion ; all vegetables eaten raw spoil the complexion; all unripe or insufficiently prepared edibles are injurious. All animal food strengthens, and so do those parts that are near the seat of life. Cabbage is good for food, and mangold for healing; and woe to the stomach into which turnip enters. (Ber., 44:2.)

The inner part of watermelons is healthful when eaten with beet root. (Ned., 49:1.)

If the patient desires something, and the physician thinks he is not to have it, the former is to be gratified, because (Prov., 14:10) "The heart knows its own bitterness." (Yoma, 83:1.)

After all meals eat a little salt, and after all beverages drink a little water. If one has eaten any dish, and has not taken salt afterwards, or if he has drunk any beverage and has not partaken of water thereafter, if it happens by day, he may apprehend offensive breath, if by night, an attack of quinsy. (Ber., 40:1.)

Any meal without salt does not deserve the name. (Ber., 44:1.)

Eight things diminish the power of procreation : Excessive consumption of salt, hunger, leprosy, weeping, sleeping on the bare ground, trefoil, certain unripe berries and blood-letting at the lower part of the body. (Gittin., 70:1.)

There are eighty-three diseases which may be prevented by an early breakfast of bread and salt and a small pitcher of water.

(B. K., 92:2.)

He that drinks during meals preserves himself from bowel complaint. (Ber., 40:1.)

Rav said: "He that is in the habit of eating small fishes preserves himself from derangement of the bowels. More than that, small fishes fatten, augment and strengthen the whole human body. He that eats carraway seed does not suffer from headache." Against this Rabbi Shimon ben Gamliel is cited, who said that carraway seed was one of the sixty deadly poisons. (Ber., 40:1.)

Any sickness rather than derangement of the bowels; any pain

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rather than that in the heart; any complaint rather than headache, and any evil rather than an evil wife. (Sab., 11 :1.)

Pearl barley, which remains in the sieve after the husks have been blown off, acts medicinally upon a patient. (Ned., 41:2.)

One rabbi who visited another on his deathbed, and found him weeping, reminded him, by way of consolation, of the old tradition, that to die of relaxation of the bowels was a good omen, because the majority of the righteous died of that complaint. (Ket, 103:2.)

Cold water, morning and evening, is better than all cosmetics. (Sab., 108:2.)

A wet-nurse should have relaxation from work, and an additional allowance to her diet; also an extra portion of wine; for wine increases milk. (Ket., 65:2.)

Six things possess medicinal virtue: Cabbage, lungwort, beet root, water, and certain parts of the intestines of animals, and some also say little fishes. (Ab. Z., 29:1.)

There are sixty kinds of wine ; the best of all is the red aromatic wine; bad white wine is the worst. (Git., 70:1.)

An early breakfast of bread and salt and a bottle of water will cure biliousness. (B. K., 92:2.)

The following is moral, and not physical: One cup of wine is good for a woman, two are disgraceful, three demoralizing, and four brutalizing. (Ket, 65:1.)

The Talmud also gives some particulars of its medical practitioners. For two hundred and fifty years (from 200 B. C. to 50 C. E.) the Essenes, a Jewish sect, practiced medicine. A female analyst is mentioned in the mother of Abai (Gitt., 67 :2) a caution not to live in a city whereof the mayor is a physician (Pes., 113:1), from which one may draw his own inference, and the suggestion that a physician who professes to cure for nothing is often worth nothing. (B. K., 85:1.)

The greatest of the Talmudic physicians was Samuel the Astronomer, who flourished in the third century A. C. E., and “who knew the paths of the heavens as well as the streets of Nahardea.” His medical opinions are scattered throughout the post-mishnaic writings. He was a specialist in bowel complaints (Ned., 50:2), and an ardent upholder of the pure water and pure air cure. (Sab., 41:1.) He also compounded a salve that healed wounds very effectively. (B. M., 107:2.) Ben Achijah flourished about 100

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B. C. E., and was attached to the Temple of Jerusalem. His professional services were continually required by the priests who, walking barefoot upon the marble pavements, became catarrhal. (Shek., 5:1.) Rabbi Haninah of Sephoris, a contemporary of Samuel the Astronomer, is also noted. He believed that warm water and anointing with oil would prolong life. (Yoma., 49:1.)

Rabbi Gamliel III, the last descendant of the renowned Hillel and the last Patriarch, flourished in the first half of the fifth century A. C. E. He was supposed to have found a specific for the cure of diseases incident to the spleen. His contemporary, Marcellus Empiricus, physician to the Emperor Theodosius, remarked in his work "De Medicamentis empiricis, physicis," etc., lib. 21, "Ad splenem remedium singulare, quod de experimentis Gamlielus patriarchus proxime ostendit." (Bergel, Med. der Tal.)

Aba, the phlebotomist, was also an eminent physician. Apart from his practice, he enjoyed the reputation of being very charitable, his fees were left to the discretion of the patient and were placed by the patient in a box hidden from all eyes. He helped poor Talmud students and was a benefactor generally. (Taanith, 21:2.)

Of Rabbi Kahana it is told that he cured a case of jaundice by wrapping the patient in cloths, thereby causing excessive perspiration. (Sab., 110:2.)

Abai or Nachmani, Jacob the Manichean, Benjamin the Essene. Theodas of Laodicea, Jacob of Sicyon, Tobias of Modin and Joseph of Gamla were all well known, but it does not appear that an extended record of their work was kept.

In conclusion: An effort has been made to review the Hygiene and Medicine of the Talmud in their several scientific branches. Indifferent reasoning has not been concealed, the good and the bad have both been stated. To the modern physician the diagnosis of a disease by some mishnaic doctor and the remedy prescribed may occasionally seem curious if not puerile; but it cannot be gainsaid that the Jews of old were in the dim light that flickered two thousand years ago, fully abreast of their contemporaries, and in many instances in advance of them. The rabbinical mode of slaughtering cattle and the subsequent examination of the carcass is in vogue today among millions of Jewish people, and has the seal of approval of the most scientific men of the medical profession.