

*On Leprosy in the Bible

H. P. LIE.

There is also a number of other circumstances which make it practically impossible to assume that the *zaraath* mentioned in the Bible can have been the present day leprosy. Thus in the description of *zaraath* it appears that this can change appearance in a very short space of time, such as one or two weeks. On the contrary, present day leprosy is

*Second part of an article reprinted with permission from *Acta Dermato—Venereologia*, Vol. XVIII, No. 4.

emphatically a chronic disease which changes very slowly. Even minor changes often take years and it may also remain inactive for years. The only exc acute attacks, but these distinguish themselves by a reddish, at times a highly red colour, at any rate among the white race, and are accompanied by severe leprous infiltrations of the affected skin. These parts are, therefore, more or less elevated above the level of the surrounding skin. This is exactly the opposite of what takes place in *saraath*.

According to the biblical version of *saraath*, it must be assumed in many cases to have been an easily curable disease. A typical instance of this is that of *Naaman* (II. Kings, chapter 5, verse 14). Our present day leprosy would certainly not be cured by bathing seven times in the River Jordan, as was the case with *Naaman*. It is unfortunate that this history does not give any description of the disease, since it strikingly calls to mind the affection mentioned in Leviticus, chapter 13, verse 6. In regard to the latter, there is more or less general agreement that it conce That it really was scabies or a similar epizootic in the case of *Naaman* is not disproved by the statement that the prophet's servant, GEHAZI, who received some garments from *Naaman*, also contracted a disease which, according to the Bible, was hereditary as punishment for disobedience. According to what was stated in this narrative, it could not be our present day leprosy. It must also be assumed that *Miriam's saraath* was cured since she was received into the camp again (Numbers, chapter 12) after seven days of isolation. This simple cure of *saraath* is greatly in contrast with the prognosis of our present day leprosy. Leprosy is not altogether incurable, but it takes a very long time and usually many years to cure the disease.

Apart from the references cited above, the occurrence of *saraath* in individuals is described in three other places, namely in II. Kings, chapter 7, where four lepers lay at the entrance of the gate of Samaria and went to the camp of the Syrians. But no mention is made of any symptoms of the disease and nothing appears in their history to throw light on the actual nature of their disease. The case is somewhat different with regard to the two instances of *saraath* mentioned in II. Kings, chapter 15, verse 5, and in II. Chronicles, chapter 26, verses 16, 19, 20 and 21. It must be assumed that both kings AZARIAH and UZZIAH were inflicted with a much more serious disease than for instance MIRIAM, since both were obliged to spend their entire life in isolated dwellings. In this instance we might perhaps consider actual

leprosy. It is unfortunate that no detailed descriptions are given of their disease. The fact that the disease suddenly broke out on UZZIAH'S forehead while he "was wroth with the priests and censored their privileges in their presence," is more apt to weaken than to strengthen this opinion.

The fact which throws the greatest doubt on the opinion that *saraath* was the same as our present day leprosy is the biblical description of *saraath* on *garments of different cloth, on furs and on stones in the house wall* (Leviticus, chapter 13, verse 47, etc., chapter 14, verse 34, etc.). Here, to be sure the colour is another than that on human beings, namely greenish or reddish, but otherwise it greatly resembles the latter. It is more deeply situated than the surrounding healthy parts and spreads in the same manner as that described in human beings, and the same observation and isolation regulations are in force. This disease on clothes, etc., must have been highly infectious and feared, since very strict measures regarding cleansing processes of the attacked articles, and in particular for the houses concerned, are set forth. It was further decreed that not only such articles should be cleansed, but also individuals who had been in the houses had to cleanse themselves. There can scarcely be any doubt but that this concerns some species of fungi.

If one turns to *Talmud* in the hopes of finding more information regarding *saraath*, one is disappointed not to find any further clinical information

Bible. Neither is there any agreement between the *saraath* in the Bible and *saraath* in the *Talmud* where the question of leprosy is treated in *Mischna*. Here we encounter the unexpected assumption that *saraath* does not belong to *nega* (*nega* = contagion) and it is, therefore, not considered to be infectious. According to *Mischna*, however, *bahereth. seeth* and *sappachath* belong to *nega*. *Bahereth* as well as *seeth* are white, but only the former is glistening like snow or the whitewash on the wall, while *seeth* is more dull white and not glistening. But in both instances there is a scaling variety and that is *sappachath*. This is not in agreement with the assumption that these words are similar to our present day leprosy, a thing we should be inclined to deduct in accordance with Leviticus, chapter 13, verse 2, if we assume that *saraath* is our present day leprosy. Further, a red *bahereth* is also mentioned, and a great number of colours are set up varying between red and white. Thus one teacher sets up 72 different forms. This fact leads us quite "out of bounds" and beyond the medical apprehension of our present day. For this very reason it is readily under-

stood that it was decreed that such patients must only be examined when the light was favourable and fell favourably upon the body, and that no one-eyed person or priest with poor eye-sight was permitted to examine these individuals and express his opinion on the nature of the disease.

As far as *saraath* otherwise is concerned, it must have been a dreaded disease as it attacked the surroundings with its *emanations*. *Talmud* mentions an old saying that a bad wife means *saraath* for the husband and he shall leave her and be healed. It will be seen that *Talmud's* version of *saraath* is not so little different from that of the Bible. It does not support the assertion, however, that the *saraath* spoken of in the Bible is our present day leprosy.

It has already been pointed out above that both the Septuagint and the Vulgate translate *saraath* with *lepra*. But the Greek word λέπρα, derived from λέπω = scaling, is the term used for various less severe diseases presenting crusts and scale-formations which are totally different from our present day leprosy. The latter is generally spoken of as *elephantiasis* by Greek authors. This regrettable confusion has been further increased by the fact that HALY ABBAS'S Latin translator STEPHENUS, has translated the Arabian *baras* also as *lepra*. This *baras* which is described by a number of Arabian writers is said to have two forms, one dark and one white. This latter form is considered as being the actual *baras* and identical with the Greek λεύκη and the *saraath* of the Hebrews, but not with the Greek *elephantiasis*. But the confusion became complete when the Arab's *judam*, *jusam*, *aljuzam* and *dsjuddam* which are the equivalent of the Greek's *elephantiasis*, were also translated as *lepra* by the Arab's Latin translators with one exception, namely, the translator of HALY ABBAS, who translated *jusam* as *elephanta*. As a result of these erroneous translations we surely have one of the reasons for the confused views taken by many writers prior to DANIELSSEN and BOECK, and also that the Hebrew's *saraath* has found its way into biblical translations and has been looked upon as our present day leprosy.

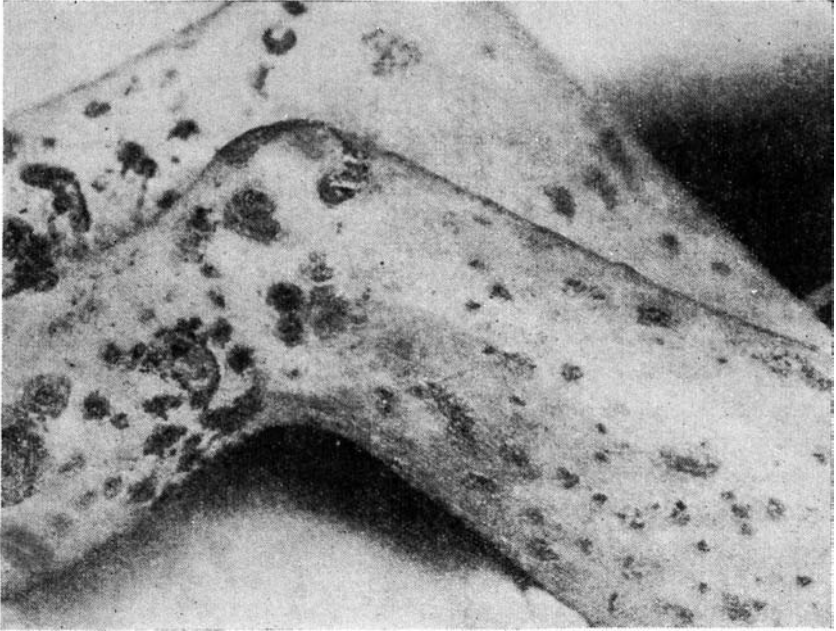
It must be admitted that several of those who have declared that they assume that the biblical *saraath* is our present day leprosy, have had a private doubt as to the correctness of their assumption. But most individuals who occupied themselves with leprosy mentioned in the Bible have had no doubt that *Job* was a leper. A sufficient proof of this fact is that *Morbus Hjobi* was quite a general name for leprosy. Likewise all the pictures from the Middle Ages

which illustrate him, represent *Job* as a leper. This assumption has flourished up to this very day. Thus BABES, in his great work on leprosy from the beginning of this century, says: '*Hjob ist jedenfalls ein Lepröser*'. Some authors have disagreed with this opinion and in the course of time a great many opinions have been advanced as regards *Job's* disease. Thus, it has been expressed that *Job's* disease must have been *syphilis* on account of the nocturnal pains, for *Job* exclaims: "My bones are pierced in me in the night season" (Chapter 30, verse 17). On account of the doubtful existence of *syphilis* in ancient times, one can, I presume, ignore this theory. BARTHOLIN has been of the opinion that the disease was a boil in the throat, since *Job* says: "It bindeth me about as the collar of my coat" (Chapter 30, verse 18). This seems but little reasonable since this diagnosis does not take into account a number of other symptoms and circumstances connected with the disease. Again, others have advanced the theory that it may have been *varicella*, or even bubonic plague etc. MUNCH is of the opinion that *Job's* disease must have been eczema on account of the persisting and severe itch. PREUSS shares more or less in MUNCH's opinion and looks upon it as a *general eczema*. After a thorough analysis, B. EBBELL has arrived at the firm conviction that *Job's* disease, which in Hebrew is called *schechin*, has been *variola*. EBBELL's view is very interesting and enticing, but despite this, I cannot share his opinion of the variolous nature of *Job's* disease, particularly since he disregards the important characteristic feature of *Job's* disease, namely the itch. Neither can I accept the view that *Job's* disease was a case of leprosy. In the severe pains in the legs of which *Job* complained, some authors may perhaps have recognized the severe and painful *neuralgiae* which frequently occur in the extremities of lepers. It must be borne in mind, however, that such pains are most often met with in the maculo-anaesthetic patients, and rarely in purely nodular lepers. The extreme formation of sores from the crown of the head to the soles of the feet, which is emphasized in *Job's* case, is not encountered in the uncomplicated maculo-anaesthetic case of leprosy. One may likewise state that the itch does not belong to any form of uncomplicated leprosy. The itch which these patients occasionally complain of is exceedingly slight and the cause of it can generally be explained by other reasons than leprosy. The formation of sores belong to the later and last stages of nodular leprosy, and many patients escape sores altogether. In the description of *Job's* disease there

is made no mention of the formation of *nodules*. If, in accordance with BABES' supposition, we assume that *Job* was leprous, then it must be exceedingly hard, if not impossible, to believe that *Job* was cured. For *Job* became eventually cured and happy, and left a healthy and beautiful issue. We cannot take for granted that such a description should refer to a leper who, according to BABES, was so severely attacked by the disease in the throat that he suffered from difficulty in breathing. In lepers such difficulties in breathing arising from throat affection are caused by scarred strictures in the larynx. Ulcerations in lepers may, to be sure, be cured, but not these scarred strictures. BABES himself is quite aware of the fact that it is difficult to assume that *Job* was a leper on account of his cure. He evades this difficulty, however, by assuming that the cure was only *relative*, an assumption which seems to me quite unconvincing. That *Job* suffered from an exceedingly severe and troublesome itch must be accepted as fact, and he has, in order to get relief from his suffering "taken him a potsherd and scraped himself withall" (Chapter 2, verse 8). As far as can be gathered, this symptom has also been decisive for MUNCH and PREUSS, since they have diagnosed the case as *eczema*. This assumption, however, seems to me inadequate to explain the description of the severity of the disease, neither the extensive formation of sores (Chapter 2, verse 7), nor the dark colour of the skin (Chapter 30, verse 30). It is still more difficult to assume that *Job's* disease has been *eczema* when one considers that *schechin* is enumerated among the plagues of Egypt. We shall return to this later. It is likewise out of the question that *eczema* could have become epidemic and attacked the greater part of the entire people.

The thought has become more firmly fixed in my mind in the course of time that *Job's* disease has not been any of the aforementioned diseases, but *scabies*, and in particular the malignant form which goes under the name of *scabies crustosa*. Unfortunately, this is also mentioned as *scabies norvegica*, but quite without any reasonable cause since it is reported from most European countries and all parts of the world, except Australia. It was D. C. DANIELSSEN who first verified and described it at "naturforskermetotet" (meeting of natural science investigators) at Christiania (Oslo) in 1844, where he demonstrated the curious crust-formations with enormous masses of *sarcoptes scabiei* in the crusts, such as he had encountered them in a leprous patient. The disease is also described in DANIELSSEN and BOECK'S

chief work ‘ *Om spedalskhed* ’ in 1847, page 160. It is also pictured in the atlas of this great work. In regards to the description I shall merely cite a few clinical symptoms : “ The peculiar thing is the large, horny, grey-brown crusts which, when they are knocked or torn off, leave behind an ulcerated skin surface which secretes a scanty, viscid matter, and shortly forms new crusts. The patient is constantly troubled with an insufferable itch over the entire body ; he is never seen sitting still, but is constantly scratching



SCABIES CRUSTOSA

himself, and his night's rest is greatly disturbed ”. A more detailed description of the disease was published by BOECK in 1855, owing to a couple of new cases among non-lepers. According to KIESS not more than a total of 57 cases had been recorded up to 1928. It would certainly be quite erroneous to assume that this inconsiderable number presented the actual expression for the frequency of the disease. Neither is the clinical picture in all cases quite limited ; the crust-formation can be more or less pronounced even in *scabies crustosa*.

It is known that scabies is most frequently complicated with eczema and occasionally with abscesses, furunculosis, or phlegmons. In such cases there may be greater or lesser crust-formations and the limit between these and the real *scabies crustosa* may become uncertain. The actual cause

of the pronounced crust-formation is as yet unknown. It appears most frequently among young, neglected and poor individuals. The cause of the malignant form must be sought in the host rather than in the parasite, and uncleanness plays doubtlessly an important part in this respect. We must assume, therefore, that the malignant form of scabies occurred in ancient times as well as in modern times much more commonly than considered and that the ancient Hebrews formed no exception.

As far as the relation between leprosy and scabies is concerned, the latter has certainly been a very frequent companion of the former, and doubtless has at times assumed serious proportions. The first case described by DANIELSSEN is not the sole proof of this. Throughout the literature on leprosy we encounter scabies and at times this disease assumed forms which rightly made it greatly feared. When leprosy was most prevalent in Norway it was rare to find a leper who was not also inflicted with scabies. Among these I have personally come across a typical case of *scabies crustosa*. The treatment of this case lasted an entire year although the crust-formation was less pronounced than in the case described by DANIELSSEN. If we turn further to the Norwegian history on leprosy we find that CHRISTEN HEIBERG described cases of leprosy in 1827 which prove that the malignant forms of scabies cannot have been a rarity. HEIBERG describes three forms of leprosy: the nodular, the smooth (*glabra*) and the scaling (*squama*). The characteristic features of the latter form, according to HEIBERG, are that it begins with a dryness and shrivelling of the skin on feet and hands, which spreads to the limbs and then particularly on the inside parts, and occasionally to the breast and abdomen. After some time there appears a ringworm-like rash on the limbs, and the skin becomes scaly. This rash may disappear to return later and becomes very unpleasant on account of the severe itch. The rash continues to spread and without disappearing it forms into broad grey-white crusts approximating an inch (3 cm) in thickness, with swelling of the lymph nodes in the armpits and groins. It is my opinion that this concerns the veritable *scabies crustosa*. The swelling of lymph nodes so commonly encountered in this form is obviously due to secondary infections. I have described such infections in a fatal case of scabies crustosa in a non-leper.

Writers in the 18th century, such as HENSLER who observed one single case of leprosy and collected a great amount of literature on the subject, mentions one form of

rash as leprosy. This began with spots that shortly itched and produced scales which broke off. But the rash increased in extent and size and the scales became huge crusts which caused a *burning feeling in the skin*, and an insufferable itch. Pursuant to HENSLER, some writers have called this complaint *impetigo*, others *prurigo*, but most of the writers have called it a dry ulcerating scabies (*scabies sicca ulcerosa*), which was very much feared during the Middle Ages on account of its malignant form. HENSLER may have been partly correct in specifying it as a form of lepra, although not pure leprosy, owing to the fact that the affection was partly accompanied by reduced feeling in arms and legs. It is quite evident to me that it is *scabies crustosa* which most nearly answers the description of this disease. The crusts are partly described as pieces of bark (*cortices*), and partly as round and hard formations with the addition of *ostraca*, *testositas*. The somewhat varied colour is described as dark by the majority of writers. The possibility of *syphilitic rupia* can presumably not be excluded in every case, but the insufferable itch must be looked upon as a proof of the presence of scabies. With regard to the diagnosis *impetigo* it must be mentioned that W. BOECK (1855) states in his description of *scabies crustosa*, as well as in his special work on leprosy (*Om den spedalske Sygdom*) (1842), that *eczema impetiginodes* is very common among lepers with scabies. Of other 18th century writers I shall only mention PLENCK who goes so far as to specify a special form of leprosy, *lepra scabiosa*, which commences with blisters, extensive itch and burning of the skin. The blisters turn later on into large grey-green crusts which cover the entire body and even the face. Other Middle Age writers have also associated scabies and itch with leprosy, such as BERNHARD GORDON (Montpellier, 1305) and the aforementioned "author innominatus". Even such an early writer as ARETAEUS (ca. 100 A.D.) states in his excellent description of nodular leprosy, that itch may be present in connection with this disease.

Scabies has been so thoroughly discussed in order that it may be compared with *Job's* disease and the symptoms present great similarity. It has already been stated that *Job* must have suffered from an insufferable itch and in order to convey an impression of the manner in which *scabies crustosa* may present great sores which cover the entire body, a photograph is inserted of a case of *scabies crustosa* in a non-leper which has previously been mentioned by the writer.

The patient in question was actually covered with sores and crusts from the soles of his feet and up to the crown

of his head. In accordance with *Job*, chapter 2, verse 5, it must be assumed that in the case of *Job* crusts have formed on his skin, and the "worms" that he complains about in the skin can very well be explained by the burning and insufferable itch which accompany this form of scabies. When *Job* says in chapter 30, verse 30: "my skin is black upon me and my bones are burnt with heat", from this may be referred that the crusts in *scabies crustosa* often are dark and that the disease often begins with big, dry crusts on the feet (see W. BOECK'S sketches). That *Job*'s nights are a torture and that he is troubled with dreams seems to agree very well with the restless and sleepless nights sustained by scabies patients (chapter 7, verse 14). The fever that often accompanies the malignant forms of scabies will also be able to explain the severe pains that *Job* complains of (chapter 30, verse 27): "my bowels boiled, and rested not". It appears from chapter 30, verse 10 that they who were around him abhorred and fled from him: "they abhor me, they flee from me". This is quite reasonable since *scabies crustosa* is very contagious and the afflicted person is most gruesome in appearance. If *Job*'s disease had been leprosy it is surprising that his friends would sit with him, since leprosy was considered an infectious disease in accordance with ancient statutes. It was for this reason that all lepers had to be isolated. The same must presumably have been the case in *Job*'s disease, had it been *variola*.

We have already mentioned that the Hebrew word for *Job*'s disease was *schechin*, with the addition of *ra* = malignant, and this may very well agree with *scabies crustosa*. The general scabies must have been widely known and not particularly feared. The malignant form, however, was altogether a different matter and greatly feared. The Septuagint translates *schechin ra* with ἔλκος πονηρός, but this does not give a hint in any special direction and we cannot find, at any rate in the literature, any such term designating true leprosy. Neither does the Vulgate, which translates *schechin ra* with *ulcus pessimum*, give us any hint as to whether we can assume it to be leprosy. Its Latin translation conveys the meaning of a malignant sore-disease in general and says nothing about the special nature of this disease. The disease *schechin* is mentioned several times in the Bible. Thus, in Exodus, chapter 9, verses 8—11 it is employed for one of the plagues of Egypt. Aforementioned reports from the Middle Ages have made it clear that scabies can spread and be greatly feared, and just as the plague here mentioned appeared on cattle also, scabies

is very prevalent among animals and can be transmitted to man from them. There was a time when it was even believed that *scabies crustosa* was a form of scabies transmitted from wolves to man. Presumably this is not the case. However, it is not unlikely that scabies can be passed on to human beings by the horse. As a plague, scabies can of course be naturally classed with the plagues mentioned in Exodus, chapter 8, namely of frogs, lice, etc. In Deuteronomy, chapter 28, are set forth the punishments that shall befall the disobedient and among these is mentioned *schechin* (verses 35 and 37). It is interesting to note that in verse 27, *schechin* is spoken of in connection with itch, and in verse 35 it is stated that *schechin* shall appear on the knees and legs. It may be interesting to mention in this connection that the knees are one of the most predilected places for *scabies crustosa*.

Schechin is mentioned also in II. Kings, chapter 20, verses 1—7 as being Hezekiah's disease. Judging from the description, treatment and the results thereof, we must presume that we are dealing with an abscess or furuncle. This fact neither disproves nor excludes that *schechin* is synonymous with scabies. It has already been mentioned that in scabies it is no rarity to encounter abscesses and similar affections caused by secondary infection, and these two diseases may, therefore, easily have been confounded at that time, as they surely have continued to be.

Schechin is also mentioned in Leviticus, chapter 13, verses 18, 19, 20 and 23, but in such a manner that there must exist some connection between that and *saraath*, since *schechin* may develop into or change to *saraath*. But in accordance with the same chapter, verse 2, the same may be the case with scabies. Their similarity in changing to *saraath*, makes it very likely that *schechin* and scabies have been one and the same disease, if perhaps in some other form or degree. It will be recalled that malignant scabies is frequently encountered in lepers and that some writers have even drawn up the particular form *lepra scabiosa*. It will easily be understood, therefore, that a patient with *scabies crustosa* but *without* leprosy has been considered as a leper and consequently been classified in literature on leprosy, as was probably the case with Job. In regard to this assumption in connection with Job's disease, it should be remarked that the *entire* Book of Job mostly conveys the impression that it constitutes a religious composition rather than an objective description of actual facts. Under such circumstances it is not wholly improbable that the

conclusion in this matter, is scarce, wholly confused and some even completely unintelligible. Besides, much of it points in quite other directions than toward leprosy. Thus, if one attempts to find conclusive proofs in the Bible that leprosy has existed among the ancient Hebrews, one will search in vain.

In conclusion, I will avail myself of this opportunity of thanking the Reverend Pastor HERMAN FRIIS LAADING, Bergen, Norway, for his valuable help and guidance with regard to the original biblical texts.

LITERATURE.

BABES: Die Lepra. Wien 1901. Nothnagels specielle Pathologie und Therapie. — *Bible*, Norwegian and English translations, and original texts. — BOECK, C. W.: Om den spedalske Sygdom (Elephantiasis Græcorum), Norsk Magazin for Lægevidenskaben. 4 Bind, 1842. — BOECK, W. og DANIELSEN, D. C.: Samling av Iagttagelser over Hudens Sygdomme. Recueil d'Observations sur les Maladies de la Peau. 1. Livraison. Christiania 1855. — DANIELSEN, D. C. og BOECK, C. W.: Om Spedalskhed. Christiania 1847. — DANIELSEN, D. C. og BOECK, C. W.: Traité de la Spedalskhed. Paris 1848. — EBBELL, B.: La variole dans l'ancien Testament et dans le papyrus Ebers. Nordiskt Medicinskt Arkiv. 1906. Avd. II. H. 4. No. 11. — EBBELL, B.: A Contribution to the earliest History of Leprosy. International Journal of Leprosy. 1935. Pg. 257. — GESENIUS: Hebraisches Handwörterbuch. — HEIBERG, CHRISTEN: Om den norske Spedalskhed. — Eyr. 3 Bind and GERSONS and JULIUS: Magazin der ausländischen Litteratur der gesammten Heilkunde, Januar—Februar 1827. Pg. 151-158. — HENSLER, GARR.: Vom abendländischen Aussatze im Mittelalter, nebst einem Beitrage zur Kenntniss und Geschichte des Aussatzes. Hamburg 1790. — JEANSELME, E.: La Lèpre. Paris 1934. — KIESS, O.: Scabies crustosa. Leipzig 1928. — KLINGMÜLLER, VICTOR: Die Lepra. Jadassohn's Handbuch der Haut u. Geschlechtskrankheiten. 10. Bd. 2. Teil. Berlin. 1930. — LIE, H. P.: Lepra tuberosa in den Handflächen, den Fusssohlen und am behaarten Teil de Kopfes. — Dermatologische Studien. 20. Bd. 1910. — LIE, H. P.: Litt om skabb og skabbbehandling. Medicinsk Revue. 39. arg. Bergen. 1922. — MÜNCH: Die Zazaath der hebräischen Bibel. Hamburg u. Leipzig. 1893. — PREUSS, J.: Biblischaltmudische Medizin. Berlin 1911. — ROGERS, LEONARD and MUIR, E.: Leprosy. Bristol and London 1925. — THIN, G.: Leprosy. London 1891.