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Eld Lunatic Asylum.

were old cases, who had been ill from one to
patients who had been previously insane. The
evade the penalty of the law, often represent
which account the real number of recent cases, is
stated in the report.

specially Sheffield, about four out of five, I speak
cases. By examining the case books, it will be
1, and others nearly so, on admission.
quiry, the magistrates may easily ascertain whether
ed regularly to their duty, but it is impossible
well versed in hospital practice, to judge of their
duty of a physician requires more care and skill

Dr. Crowther’s pamphlet which relates
周恩 from the governors of the insti-
that the unpleasant altercation stated
ce at the lunatic asylum, in Wakefield,
t occurrence in charitable institutions: 
sert they more generally originate in
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nd, with surprise and regret, the insi-
and matron, received by a majority of
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nd highly approved services,) affecting
a, or his qualifications as a professional
being allowed to meet his accusers, or
the nature of the charges insinuated
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ure, to these malevolent attacks, from
occasion to reprehend, or may, uninten-
right to look up to those
uperintendence of the establishment,
his honour and professional reputation,
er by agents appointed and paid by

ACKNOWLEDGMENTS.

obliged to omit in the present number, the
Prophylactics; Dr. M’Cabe’s remarks on
ver; Mr. Ricketts’ Medical Topography of
ases of Bronchotomy, &c; as also some im-
these, however, will appear in the 9th No.
Walker, on the state of the medical art amongst
lae; and some cases and observations by Dr.
nection between Bronchial Inflammation and

terological Report and the Parochial Returns,
also be given in the 9th No. which will be
ns, addressed, free of expense, (under cover,) to
ester Journal, will receive immediate attention.

THE MIDLAND

Medical & Surgical Reporter,

AND

TOPOGRAPHICAL AND STATISTICAL JOURNAL.

Hom, naturæ minister et interpres, tantum fact et intelligit, quæsum, de naturæ ordine, re vel mente observaverit; nec amplius scit, aut potest.—Bacon, Notum Organum.

No. IX. AUGUST, 1830.

On the State of the Medical Art among the Jews, as
recorded in the Bible.

BY J. K. WALKER, M. D., HUDDERSFIELD.

WHOEVER should take up the history of any people, for the
purpose of extracting from it a faithful account of any particular
art or science, would, in most instances, incur disappointment,
insufficient as historians profess to give a history of national
events, and not a minute detail of the arts and sciences. Their
bearing, however, on the character of nations, is so con-
siderable, that there are few histories that are destitute of some
information on this head; and it is from such general outline
that the reader must fill up the sketch. This truth obtains in the
history of the Jewish nation in particular. The children of Israel,
while they were yet in the wilderness, were commanded to con-
struct a tabernacle of unrivalled splendour for holy purposes, and,
at the conclusion of this solemn injunction, it is said, “Take thou
also unto thee, principal spices, of pure myrrh, 500*; of sweet
cinnamon, 250; of sweet calamus, 250; of cassia, 500; of olive
oil, an hin; and thou shalt make it an oil of holy ointment, an
ointment compounded after the art of the apothecary.”† The
word in the original for apothecary, is used in other parts of the
Old Testament, and is always so translated in the other passages,
from which I infer that the term, if not in all respects analogous
to the same office in modern times, is yet demonstrative of the
advanced state of the pharmaceutical art; and in a few verses

* I have not added the word shekel, because it is not in the original.
† Exodus, xxx. 23, 25.
‡ Rakaro. 1 Samuel, viii. 13; and again in Eccles. x. 1.
after, the divine command is given to Moses. "Take unto thee sweet spices, stacte, and onycha, and galbanum; these sweet spices, with pure frankincense: of each shall there be a like weight: and thou shalt make it a perfume, a confection after the art of the apothecary." It is not quite clear that, in the original, the relative quantity, as well as mode of composition, was not to be left to the apothecary; but it is evident that the office here incidentally alluded to, was coeval with the departure of the children of Israel out of Egypt. If, as is believed, the medical art was cultivated at that early period in Egypt, the Israelites might have gleaned some knowledge of the subject during their long captivity. The court of Pharaoh abounded with every luxury, and it is not likely the study of medicine would be overlooked; indeed, we are told that, on the death of Jacob, the physicians were commanded by Joseph to embalm his father. * The Seventy, indeed, have thought proper to translate the Hebrew word Rufai, embalmers, which appears rather singular, as, though the same word occurs repeatedly in the Old Testament, it will no where admit of such signification. Why is it not so translated where King Asa is reproved for placing confidence in the physicians? It is well known that, among the Egyptians, the priests exercised, in those days, what was considered the highest branch of the profession, which consisted of magic rites and ceremonies. † But besides these, there were other branches. According to Herodotus, each distinct distemper had its own physician, who confined himself to the study and care of that, and meddled with no other; so that one class had the care of the eyes, another of the stomach, another of occult diseases, &c. To one of these classes might belong the physicians who embalmed Israel, for among no people more than the ancient Egyptians, was the principle of a division of labour observed; and this was probably the fact in the age of Joseph, as well as that of Herodotus, especially in the art of physic, which would necessarily remain stationary, so long as the higher department was hereditary, and the son received and obeyed implicitly the instructions of the father. ‡ Whatever,

* In Josephus' account of the policy settled by Moses, one of the laws states that, "if the that is smitten eschew death, and yet be at great expense for his cure, the suitor shall pay for all that has been expended during the time of sickness, and for all that he has paid the physician."

† These are the wise men and magicians of whom Moses speaks. On the strength of this use of the word physician, the author of the divine legislation has indulged himself in forming an ideal picture of the grandeur, luxury, and politeness of the Egyptian people.

‡ Vide Herodotus. That the Egyptian physicians were little skilled in external complaints, seems probable from what Herodotus says concerning their inability to cure a common luxation of the foot, which Darius, the son of Hystaspes, had met with in hunting. They appear, however, to have been acquainted with the power of some valuable remedies, as of squills in dropsy, and of iron as a tonic.
however, was the state of the medical art among the Egyptians at this period, we are told that Moses was versed in all the knowledge of the Egyptians; and the health of the children of Israel, next to their religious improvement, was evidently a leading feature in the Levitical code. Among the curses of disobedience denounced on the Israelites, are the diseases of Egypt, which were either the plagues with which God afflicted Egypt during their captivity, or the diseases which were most common in that country. Now, we are told by Pliny that "Egypti peculiarum hoc malum Elephantiasis;"* and we know that, with many of the ancient writers, the two diseases, leprosy and elephantiasis, were regarded as convertible terms; on this topic, however, I shall hereafter beg to enter more largely, as there appear to be much confusion and great error in professional, as well as other, authors on this subject, as has been most satisfactorily shewn by that professional scholar, Dr. Mason Good. The Levitical code had for its primary object, to draw a line of separation between the Jews and their idolatrous neighbours, for purposes which we all know, and which it would be out of place to discuss here. But it may not be improper to remark, that the regulations imposed by that code, were, in a mere human sense, the wisest that could have been enacted for the preservation of the health of the people. The instructions, as to the selection of diet, the observance of cleanliness and frequent ablation, so peremptorily enforced, were admirably adapted for their personal comfort, while they subserved the higher and more holy purpose of maintaining a purer faith than the surrounding nations. The same may be said of the distinction between clean and unclean beasts, and the prohibition against eating blood, which, in a climate like theirs, was well calculated to preserve them from the bodily, as well as moral, diseases of their neighbours. We see how they drew the divine displeasure upon themselves, when they murmured in the wilderness, and cried, "Who shall give us flesh to eat?" Quails were given in wrath, and a deadly plague was the consequence. Whenever, indeed, the divine command was disobeyed, not only the personal happiness, but health, of the people, was made to suffer. At the rebellion of Korah, a plague broke out, by which 14,000 perished; and after the Midianitish festival, a pestilence broke out in the camp, by which 24,000 persons died. Foremost in the tremendous catalogue of calamities, denounced through the medium of Moses, as the punishment of apostacy, is this, "The Lord shall smite thee with a consumption, and with a fever, and with an inflammation, and with an extreme burning;"* and in a few verses below, "The Lord will smite thee with the botch of Egypt, and with the emerods, and

* Lucretius adopted the common opinion.

Est Elephas morbus qui propter flamina Nili
Giguitur ÁEgypto in mediis, neque praterent usquam.

De Rer. Nat. vi. 1112.
with the scab, and with the itch, whereof thou canst not be healed. The Lord shall smite thee with madness, and blindness, and astonishment." In Leviticus, "I will even appoint over you terror, consumption, and the burning ague." I shall not, in this place, enter into the objections made to some of the terms adopted in our translation. Some of them might, perhaps, with propriety, be altered, but it is of the last importance to bear in mind the distinction between these penal visitations, and those natural diseases which happen to all men of every age or nation. How awfully the above denunciations were executed, the reader of the Jewish history will find too frequent proofs in the sequel of Jewish apostacy. But in the more auspicious periods of their history, while under the especial favour of Heaven, they did not enjoy any immunity from the ordinary deviations from health. So long as they maintained inviolate the great truths confided to their care, human affairs seemed to take their ordinary course, and, though a blessing was promised on their exertions, yet it was not conferred upon indolence, for it is said, "the idle soul shall suffer hunger." We see, for instance, among the blessings of obedience, fruitful seasons are promised, but these fruitful seasons were to crown, and not to supersede, the labour of the husbandman; and we do not find that they neglected to till the ground. The same was the case with the preservation of health; and at those periods when they had the greatest reason to rely upon the Divine favour, they did not neglect the ordinary means for preventing and healing diseases. Indeed, King Asa is re-proved for placing his confidence in physicians, when he had a very painful disease in his feet, and for not applying to the Lord. And it is clear, from the sentence of our Saviour, "they that be whole need not a physician, but they that are sick;" that it was a general custom to resort to medical aid in seasons of sickness. St. Mark, indeed, speaks of one poor woman, as welle ναρώνα απὸ ναλίς αποφείλεται. And the same appears in other passages. It has been said that the priests were the physicians, because to them belonged the office of distinguishing the several sorts of leprosy, but there is no proof that they interfered, in other respects, more medico, at least it does not appear to have been the case in the latter ages of the Hebrew theocracy. Josephus gives us no assistance in this question. He states, indeed, that the Essenes studied the nature and cure of diseases, and the medicinal properties of herbs and minerals, but with a few exceptions, he is

* 2 Chron. xvi. 12. Dr. Outram, in Libro de Sacrificis, states, that among the Prefects of the Temple, there was one who presided over the medical officers attached to the service of the Temple. "Decimus (Prefectus) is praefuit medici, qui sunt commissi in cura sacre statum, qui cum Sanctuario pavimento discolintia versamentur, dysenteriam sape laborant." This would not be the case if the priests themselves practiced physic.

† Josephus, in speaking of the sickness of Hezekiah, says that the physicians despised of him, and expected no good issue of his sickness.—Vol. 2, p. 91.
silent on those points that should illustrate the state of those sciences among the Jews. We find, however, repeated allusions to the Jewish physicians. In reviewing the natural history of the Bible, it is evident that, though much light has been shed upon it by the researches of learned travellers, much remains to be explained both in the animal, mineral, and vegetable kingdoms.

It is from the latter of these that the Hebrew physicians appear to have drawn the largest portions of their remedies. To that subject, therefore, I shall dedicate the following pages, reserving some account of the diseases mentioned in the Bible, for a future number of your Reporter. It is said in Scripture that "Solomon spake of trees from the cedar in Lebanon, even to the hyssop that springs on the wall;" and by some it is supposed even to have composed a work on botany, which is alluded to by Arabian writers; but if such a work had been seen by any Arabian writer, it is difficult to conceive that, though the work itself were lost, no part of its contents, no extract, should have been preserved; at any rate, if it ever existed, it has shared the fate of many other of that Monarch's compositions, to the great regret of naturalists of all succeeding ages. In the Song which bears his name, he seems to have selected from the vegetable kingdom, some of its richest productions, to illustrate, by comparison, the beauty of his royal bride. Sometimes, indeed, the royal naturalist shows his acquaintance with the physical properties of bodies. In Prov. xxv. 20, he compares the singing of songs to a heavy heart, to the action of vinegar on niter, (not nitre, as our translation has it:) and this, as far as I know, is the first record of the difference between an acid and an alkali. In another place, when he would paint an emblem of avarice, he says, "the horse leech has two daughters, give, give." In the last chapter of Ecclesiastes his portraiture of old age is not less physiologically correct, than poetically sublime. What can be more beautifully figurative of the decay of the different functions of life, than the metaphorical language of that chapter, especially the following, "or even the silver cord be loosed, or the golden bowl be broken, or the pitcher be broken at the fountain, or the wheel broken at the cistern?" Every intelligent reader knows that this verse is anatomically descriptive of the approach of death, and that the silver cord here spoken of is the medulla spinalis; and by the golden bowl we are to understand, the cranium with its brainular contents, broken or bereft of its functions. Neither can there be much doubt, but that the pitcher broken

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* Among others, he enumerates the spikenard, myrrh, camphire, cedar, the rose of Sharon, lily of the valley, the apple tree, the fig tree, the vine, &c.

The frequent recurrence of metaphorical expressions to natural objects, and particularly to plants and trees, is so characteristic of the Hebrew poetry, that it might be almost called the botanical poetry. In the Sacred Scriptures there are upwards of 250 botanical terms, which none use so frequently as the poets.
at the fountain, represents the heart. Plato calls the heart ψυχή τοῦ πυρετικῶν ἐφόσον αἰματος the fountain of the briskly circulating blood, and ἡψις is the very word the Seventy use for the Hebrew word translated fountain.

The heart, the liver, and the kidneys, have each been supposed to be signified by the wheel broken at the cistern, but, after all the ingenuity exercised to make good the claim of each of these viscera, may it not mean the aortal curvature, which receives and transmits the blood to every part of the body? Whatever be the true solution of this point, there is every thing in this verse to shew that Solomon, either from the animals slain in sacrifices, or other sources, was not ignorant of the general anatomy of the human body, and perhaps of the nature of some of its more important functions.

In short, the whole of the sacred volume abounds with illustrations borrowed from natural history, and the beauty, and sometimes even the meaning, of passages, is obscured by the erroneous medium through which we view them. The English names employed in our translation are occasionally incorrect, being given at a time when a knowledge of ancient natural history, and particularly of oriental botany, was more imperfect than it now is; and even now we find much diversity of opinion in the accounts of modern travellers, who have investigated the natural history of Palestine. For my own part, I cannot see how it is possible to write the natural history of any country from ocular inspection, without residing in it during every season of the year, for every season has its botanical productions. Bruce, indeed, says, that in describing the plants, &c. which he saw in his travels, he made it a constant rule to give the preference to such of each kind as are mentioned in Scripture, and he has certainly added much to our stores of knowledge; but still it is to be desired that some competent traveller, with a greater knowledge of oriental languages, and especially of the Hebrew, than falls to the lot of travellers in general, should first qualify himself by an acquaintance with every branch of natural history, before he commences the task. And after all, unless he is prepared to protract the period of his residence in the Holy Land to some years' duration, he will have to rely upon others for much of his information.

Much was to be expected from the early writings of the Arabian physicians, but such authors of that nation, as are now extant, have afforded but little light upon the subject; and even that little, it is affirmed, has been borrowed from the Greeks. It is highly probable that, at the taking of Alexandria by the Saracens, a new era arose in the medical literature of the Arabians, and that many very valuable remedies were introduced into the medical practice of that country. Still it is quite evident, that many of the names of plants in use among the Arabs of the present day, are not of Grecian, but of Hebrew origin. A constant intercourse has existed in all ages, betwixt the two contiguous
Dr. Walker

The heart. Plato calls the heart the fountain of the briskly circling blood. How does this happen? Whatever the cause, the heart is more or less influenced by the arterial curvature, which receives the blood from every part of the body. Whatever the claim of each of these movements, whether from the arteries or veins, the general body, and perhaps of the nature of some diseases.

The sacred volume abounds with illustrations of natural history, and the beauty, and majesty of passages, is obscured by the translation. The English translation is occasionally incorrect, and a knowledge of ancient natural history was more imperfect than we now find. How much diversity of opinion there were among the ancient travellers, who have investigated the Holy Land. For my own part, I cannot see the history of any country without reading it during every season of the year. The season of the year has its botanical productions, and the spring season. In describing the plants, &c. which he left a constant rule to give the preference to the sacred writers as mentioned in Scripture, and to our stores of knowledge; but still it is competent work, with a greater care, and especially of the Hebrew, which has been qualified by every branch of natural history. And after all, unless he is proud of his residence in the Holy Land to have to rely upon others for much that he has not read from the early writings of the sacred authors of that nation, as are now available. The choice authors of the Arabic language have contributed to the knowledge of the Arabs, and the medical literature of the Arabians, which has been borrowed from the Greeks. It is the taking of Alexandria by the Saracen that has introduced the medical literature of the Arabians, which has been borrowed from the Greeks. It is the taking of Alexandria by the Saracen that has introduced the works of the Greek physicians into the Christian Church. We have the authority of Herodotus for stating that the Sacred Scripture has borrowed many of their remedies from the Phoenicians, the neighbours of the Jews; and we know that a great proportion of the aromatics in use by the Greek physicians, such as cassia, myrrha, olibanum, galbanum, aloes, &c. came from the East. And as the East was the cradle of the science of medicine, it is not improbable that the art of medicine was not only begun, but was carried to a higher pitch there in the primitive ages of the world, than can be proved by existing documents. The works of the Greek physicians have had the good fortune to reach our age, and we know how prone that nation was to extol their own merits at the expense of others. Had any of the works of Jewish physicians been preserved to our day, the respective pretensions of the two might have been placed on a different basis.

Can there be a question that those Arabian plants derive their names from a Hebrew origin, and that before the many revolutions which Arabia has sustained both in her civilization and language, this similarity was much greater. It is true, in after times, the Arabian physicians were in the habit of studying and borrowing from Greek writers, but from whom did the Greeks borrow many of their remedies? We have the authority of Herodotus for stating that the Sacred Scripture has borrowed many of their remedies from the Phoenicians, the neighbours of the Jews; and we know that a great proportion of the aromatics in use by the Greek physicians, such as cassia, myrrha, olibanum, galbanum, aloes, &c. came from the East. And as the East was the cradle of the arts and sciences, it is not improbable that the art of medicine was not only begun, but was carried to a higher pitch there in the primitive ages of the world, than can be proved by existing documents. The works of the Greek physicians have had the good fortune to reach our age, and we know how prone that nation was to extol their own merits at the expense of others. Had any of the works of Jewish physicians been preserved to our day, the respective pretensions of the two might have been placed on a different basis. One feature in Biblical, as well as in medical, history, is the age. It is quite evident, that plants in use among the Arabs of the present time, but of Hebrew origin. A constant reference appears to the two contiguous territories of Arabia and Palestine, and the Arabian language probably more nearly approached to a dialect of the Hebrew in ancient times than it now does. In those days the names of plants bore a great similarity in both languages. Even at the present day, the resemblance is still to be traced.

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* Many of the pharmaceutical terms still employed, are of Arabian origin, e.g. alcohol, naptha, camphor, julep, syrup, &c.

† Solomon says, of writing books, there is no end. It is hardly conceivable, that amidst such a profusion of books, there should not have been the usual proportion on the subject of the healing art.
oriental botany in general, is the profusion of spicy drugs, which, indeed, are indigenous in eastern countries; and with that wonderful concinnity which pervades the works of creation, these productions are admirably adapted to the wants and diseases of the inhabitants.* It is probable that many aromatics mentioned in Scripture, were brought from the neighbouring countries. Indeed, we find it stated that the Arabian merchants, who bought Joseph, were laden with spices, balm and myrrh, from Gilead. What this balm of Gilead was, whether the balsamum so much celebrated by Pliny, Tacitus, and others, for its medicinal virtues, and said to be the product of Judæa only; or whether it is the resin of the Terebinthus, as Bochart maintains, or some other oily resinous substance, is not quite satisfactorily decided. It is, however, frequently mentioned in Scripture, and that its saniative properties were held in no mean estimation, is clear from the passage, "Is there no balm in Gilead, is there no physician there?" The baalsheen or balsam tree, brought by the queen of Sheba, (according to Josephus,) as a present to Solomon, who was celebrated for his collection of exotics, is by some thought to have produced the balm of Gilead. That it did, indeed, grow in the native country of the queen of Sheba, there is every reason to believe from the authority of Strabo, who says, "In that most happy land of the Sabæans, grow the frankincense, myrrh, and cinnamon; and in the coast that is about Saba, the balsam also." If, however, this balsam is the same as that brought from Gilead in Judæa, by the merchants who bought Joseph, then it is clear that Josephus is wrong in saying that it was first introduced into Palestine by the queen of Sheba; at any rate, we find no such plant described by modern travellers in the Holy Land, as in all respects coincides with the Scriptural balm of Gilead.

The aloe, also, is another of those drugs used as a perfume, and for embalming the dead. From it was extracted the gum used in medicine. The lign-aloe is described by Calmet as about 8 or 10 feet high, having under the bark three sorts of wood. The last or odoriferous portion, is esteemed in the east more precious than gold. It is also said to be at present, and probably was, in remote ages, used medicinally in the same manner as other aromatics. In the list of odoriferous herbs, which have divided the opinions of learned naturalists, is the Hebrew dudaim, which in our version is translated mandrakes; and, indeed, this appears to me a much more likely plant than lilies, jasmins, lote tree, violets, &c. each of which has been, by different authors, supposed to be the true interpretation of the flowers gathered

* Various passages allude to the use of plants and herbs in the cure of diseases. Ezekiel speaks of trees, of which the fruit shall be for meat, and the leaf thereof for medicine. In Proverbs, the herbs of the mountain are gathered. xxvii. 25.
by Reuben. The dudaim gives a smell, says the Song of Solomon, whose authority is the best that could be had on this subject. But it is to the fruit, rather than the flowers, that the smell appertains, and it is the fruit which, among the Greeks and Romans, as well as among the Jews, was supposed to possess a virtue to remove sterility. One of the titles of Venus was Mandragoritis, and the emperor Julian, in his epistle to Calixenes, says that he drinks the juice of mandrakes, to act as a philter. Dioscorides, too, before his time, says of the root, δασανζεδες ραμανζενις ἀναμανζενις. Even in our day, a superstitious importance is attached to this plant in some countries, though its general use has long since been exploded. Another of the vegetable products familiar to every reader of Scripture, is manna. We are told by Seetzen and Burekhardt, that manna is a natural production, which distills from the tamarisk, in the month of June, and that the Arabs still collect it, and continue to call it man. But it is important always to bear in mind, that the quantity so collected, is very small in any year. But as the learned Dr. Harris has observed, in his late most useful work,* this kind of manna is purgative, and the stomach could not endure it in such quantity as is implied by its being eaten for food. In short, he adds, (what indeed must be obvious to all,) the whole history of giving manna is miraculous, not merely that it should fall in such immense quantities as to supply so large a host, but that the supply should take place at stated times, just when it was most wanted. It is compared, in the Mosaic account, to coriander seed in shape, and to bdellium in colour.

But, perhaps, of all aromatic plants mentioned in Scripture, the nard was considered the most precious. It formed the basis of an ointment very costly and odoriferous. It is twice named in the Song of Solomon, and two varieties of it, (one Arabian and the other Indian,) supposed to be intended. Dioscorides also distinguishes the "nardus Syriaca" from the "Indica." In the opinion of the best commentators, it was the latter of these that was poured on the head of our Saviour, who is thought to have had in view the remoteness of the country of its production, in that most striking passage, "Whosoever this Gospel shall be preached," &c.

The nard of the Old Testament, and μαρμοντ of the New, is our myrrh, which is still, as then, imported into other countries from the coast of Arabia. We know that this drug formed part of the

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* I had prepared a list of the Hebrew names of plants mentioned in the Bible, with a view to its insertion in this place, but on lately perusing the work I have above alluded to, this task has been so much more ably performed, that I cannot do better than refer my readers to it, not only for information in this particular, but in every point relating to the natural history of the Bible. I have derived the most important assistance from it, in this branch of my subject, and recommend it to the perusal of every biblical student.
most costly ointments, and was probably then, as now, used medicinally. It formed part of the present made by the Magi at the birth of our Saviour, and wine mingled with myrrh was offered to him at the crucifixion. If the οίνος καταψυκτικός was given, as some commentators maintain, to blunt the pangs of dissolution, it was, at any rate, rejected by our Lord, and would furnish a strong argument against the too general practice of resorting to stupefactive remedies, to lull the agonies of death. But, on the other hand, it is thought by most, that nothing more was intended than a bitter draught of some kind, offered by the Roman Soldier in mockery to his sufferings. The similarity of mar, (which signifies gali,) to mur, myrrh, in the Hebrew language, may serve to reconcile any apparent discrepancy.

It is well known that frequent mention is made both in the Old and New Testament, of hyssop. From the accounts of modern travellers, it seems to have been a smaller than our common species of hyssop. It had its Hebrew name from its supposed detersive properties, (vide Parkhurst's Hebrew Lexicon,) and was used in sprinkling the blood of the paschal lamb. Its use at the Crucifixion is considered as typical of the purifying virtue of the sufferings of Christ. Its medical virtues, however, do not appear to be highly appreciated at the present day. It is oftener used in cases of pectoral affections, than in any other class of diseases. The cassia of the Bible, is the kiddah of the Hebrews. The same is mentioned also by heathen writers, Herodotus and Pliny, who acknowledge that they received it, as well as myrrh and cinnamon, from the East.*

Of the other aromatics recorded in the sacred volume, the history is familiar to your readers. The αρωμα (in Matthew xxiii. 23,) is not, as our translation has it, anise, but dill, which seems to have been used as an ingredient in medical compounds of former ages, as well as in our time. So have both mint and cummin; (vide Celsius.) Of the camphire, the cane and galbanum, the first is described by Mr. Harmer in his commentary on Solomon's Song; the second is supposed to have been one of those plants presented by the queen of Sheba to Solomon, and probably cultivated in Judaea, as Theophrastus says that it grew near Mount Libanus. The galbanum, a Syrian plant, was an ingredient in the holy incense of the Jews, and as we know that other nations of antiquity used it very extensively in medicine, it may

* Josephus' strange account of the root baaras, was probably derived from the Magicians. He says, "its colour is like that of flame, and towards the evening it sends out a certain ray like lightning, and that it is certain death to those that touch it, unless any one take and hang the root itself down from his hand, and so carry it away: or they tie a dog to it, and when the dog tries to follow him that tied him, this root is easily plucked, but the dog dies immediately, nor after this need any one be afraid of taking it into their hands. If it be brought to sick persons, it drives away all demons!" Vide Joseph, lib. vii. 3.
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fairly be presumed that its virtues in this respect were not
unknown in Judaea. The Hebrew word rash or rash, was in-
tended to denote some poisonous and perhaps bitter herb, and it is
joined in some passages with wormwood. Can it be the same
as is mentioned in this passage of Celsus, "Tum ipsa ulcer
perunguenda sunt melle, cui rhiz, quem Syriacum vocant, aut
amarae nucos adjecta sunt."
The bitter herbs with which the Jews were commanded to keep
their passover, are not specifically named in Scripture, but the
Jewish writers reckon five species, which are supposed to be the
tansy, chamomile, taraxacum, wild lettuce, and centaury. But
as no precise directions are given on this point, it is probable
that others were used with a similar intention. The typical ten-
dency of this injuction is familiar to all, and it is certain that
such a practice must, in many instances, have proved highly con-
ductive to the preservation of their health.
Fearful of having encroached too largely on your pages, on a
subject which, however interesting to the biblical student, may
possess less attractive features to the professional reader, I shall,
at present, content myself with having enumerated some of the
principal plants recorded in Scripture. A much larger space
than could be allowed, would be requisite to comprise the whole.
Unfortunately possess no ancient documents to show how far
these Scriptural plants and herbs were made available for medi-
cal purposes, but that many of them were so used, we have the
evidence of the Scriptures, along with that of Josephus and other
ancient writers. We find, indeed, but incidental allusions, but
still they establish the fact; all that we want is a more circum-
stantial detail. When I find, too, in Greek and Roman writers,
alusions to Jewish and Arabian medical practice, I cannot but
regard that as another unexceptionable testimony of the advanced
state of our art among the Jews. Two Jewish and one Arabian
formula are given in Celsus alone. Indeed, the vitiligo of that
author is so similar in its threefold division, to the of the
Levitical leprosy, that it is almost difficult to believe that Celsus†
was ignorant of the Mosaic description. But on this point, as
well as on other diseases mentioned in Scripture, it will be more in
place to speak on some future occasion, if, indeed, I have not
already trespassed too largely on those pages, which should, I
admit, be restricted, as much as possible, to subjects of a more
practical nature.

* Vide Cels. lib. 6, cap. xi.
† As a specimen of Arabian practice in the days of Celsus, the Arabian
composition for an application, "ad strunam et phymata," is as follows:
"Habet myrrhus, salis ammoniaci, thuris, resinae et liquidae et aridas, cro-
conamagnatis, ceras, singulorum, p. i. lapidis ejus quem taraxacum vocant p. iv.
quibus adjicent Sulphuris, p. ii." For the two Jewish formulas, vide Cels.
lib. v. page 263-73.
Fracture of the Nasal Bones.

9th. Compound fracture of the bones of the nose were elevated by a female sound, and

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On the State of the Medical Art among the Jews, as recorded in the Bible.

By J. E. Walker, M. D., Huddersfield.

[continued from page 173.]

I have stated the great difficulty there existed in arriving at any accurate conclusion, on many points relating to the natural history of the Hebrew nation, in the absence of sufficient light to guide us in this interesting research. It is the want of such information, that has prevented us from seeing the full beauty and meaning of many incidental references to beasts, birds and plants, to be met with in various parts of holy writ, as well as the propriety and aptitude of many allusions to their nature and habits. I felt the truth of this, in the cursory glance I took, in a former number, of the principal vegetable productions recorded in Scripture, and the consequent uncertainty there was in deciding upon the proper name for many of the species there mentioned. The same difficulty obtains in the biblical allusions to the mineral kingdom. The only two metals recorded in Scripture, as in use anterior to the deluge, are brass and iron. In the days of Abraham, silver was used in transacting the commerce of the country, for in negotiating for the purchase of a burying place, it is said that Abraham weighed 400 shekels of silver, current money, with the merchant, and at the same period gold is mentioned as used in female ornaments. Lead, also, is mentioned, with five other species of metals, in Numbers, xxxi. 21, "only the gold and the silver, the brass, the iron, the tin,
and the lead."** In very ancient times, copper was used for the same purposes for which we now use iron. Job speaks of bows of steel, as our version calls it, but the original word "nehesh" will not bear any such construction, but means copper; and when the Philistines had Samson in their power, they bound him with fetters of copper, which is also erroneously translated brass.† Tin is frequently mentioned in the Old Testament. That the properties of tin, as well as other metals, were not unknown to the Jews, seems probable from various passages. Silver, for instance, is said of all the metals to suffer most from an admixture of tin. Does not this show the propriety of the denunciations of Jehovah, by the prophet Isaiah, ch. i. 25, for having compared the Jewish people to silver, he declares, "I will purge away thy dross, and remove thy particles of tin," which appears to signify that God would purify the Jews from all reprobate admixture. Of antimony,‡ which is in some places termed phuph, in others, cohol; the use appears to have been common among the Jews. It seems expressly to have been used as a kind of paint, with which the women blackened their eyes. And it is most probable that it was originally used for the relief of certain disorders of the eyes, and afterwards as an ointment, for I find its application commented by Galen, as useful in strengthening the eyes, ἀφθαλείν ἵνα πονεῖτι τὰ διὰ τὰς σφυραὶς λείας ἁρματικοὶ τοὺς κελευμένους. Many other mineral productions and precious stones are named in Scripture; such as agate, bdellium, carbuncle, chaledony, diamond, Jasper, onyx, emerald, sapphire, topaz,§ &c. which all

* Of the mode of working these metals, we have no account; nothing but incidental allusion. It is said, for instance, in Ezekiel, † that the house of Israel is become as dross, all of them are as copper and tin, and iron, and lead, in the midst of the furnace they are as the dross of silver. Therefore, because ye are all of you become dross, I will gather you into the midst of Jerusalem, as men gather silver and copper, and iron, and lead, and tin, into the midst of the furnace, to blow the fire upon them, to melt them."†

† The word brass occurs frequently in our translation of the Bible, but that is a mixed metal, for the making of which we are indebted to the 13th century. There can be little doubt that copper is the metal intended.

‡ Ezekiel, describing the irregularities of the Jewish nation, under the idea of a debauched woman, says, "thou didst dress thine eyes with cohol, which the Septuagint render τινὸς τούτων ὀφθαλμάκεφαλον.

§ For an account of all these, and the passages where they are introduced, vide Dr. Harris, whose work I have already mentioned. There is a remark of Bishop Patrick on the subject of the lily, so beautifully introduced in various parts of Scripture, to which, as it is new to me, I beg to advert in this place. As in Cant. v. 13, the lips are compared to the lily; he supposes the lily here instanced, to be the same which, on account of its deep red colour, is called by Pliny "rubens liliun," and which, he tells us, was much esteemed in Syria. Such may have been the lily mentioned in Matthew vi. 28-30, for the royal robes were purple. **Consider the lilies of the field, how they grow, they toil not, neither do they spin, and yet I say unto you that even Solomon in all his glory was not arrayed like one of these."
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ON THE MEDICAL ART AMONG THE JEWS. 245

shew to what a pitch civilization and refinement had attained, and with these, a corresponding proficency in the arts and sciences. The animal kingdom, too, lends its stores to enrich and illustrate the writings of inspiration. The instances are too numerous to be mentioned here. The lion, the elephant, the camel, the eagle, hyena, fox, wolf, and many other beasts and birds are either expressly mentioned or incidentally alluded to.

In all these cases, a knowledge of natural history is necessary, to appreciate the force and propriety of certain expressions, and in some instances to understand the meaning of the passage. In that passage, for instance, where it is said, "if he shall ask an egg, will he offer him a scorpion?" the beauty of the passage, in part, depends upon a circumstance not known to every reader. The scorpion is here contrasted with an egg, on account of the oval shape of its body. The body of the scorpion is very like an egg. Bochart has produced testimonies to prove that the scorpion in Judea were about the bigness of an egg. I could adduce many examples of a similar kind, which strikingly evince how much the beauty of some passages, and how much even the sense of others is lost or impaired by inattention to the auxiliary light of natural history. Enough, however, has been said in this and the preceding paper, to draw the attention of the reader to this interesting subject. I shall now resume the discussion of the various diseases of which mention is made in Holy Writ, and among the first of these, we find the leprosy recorded as peculiarly prevalent among the Israelites. There were many stages, and many varieties, of the disease, some of which were regarded as infectious, others not so.

Whoever would understand this subject thoroughly, must study the diagnostic symptoms of leprosy, and other analogous diseases, as enumerated in the 12th chapter of Leviticus. The following are some of the directions laid down by the divine lawgiver. If there appeared a rising, a scab, or bright spot, and the hair was turned white, and the eruption deeper than the skin, this was pronounced to be leprosy. It sometimes, however, happened, that in its early stage, the bright spot was to appearance not deeper than the skin, and the hair not turned white; in this case it was bound up for seven days, when, if no change had taken place, another seven days were permitted to elapse, before it was again examined by the priest. If it was not a case of leprosy, the eruption commonly assumed a darker appearance, and did not spread, and the patient, in this case, was considered clean; but if the priest saw clearly that the scab had spread in the skin, it was regarded as an incipient leprosy. In a confirmed leprosy, the eruption was white, as well as the hair, and there was an appearance of "quick raw flesh." This last symptom was regarded as decisive, for however much the leprosy spread, and however long it had lasted, yet, without the raw flesh, it was not regarded as a case of unclean leprosy. The disappearance of the rawness altered its character, and the afflicted man was
pronounced clean. It is evident that in a leprous diathesis, almost any eruption, or cutaneous lesion, might terminate in leprosy; and accordingly, we find Moses laying down rules for this class of cases, in which the above distinctions are repeated. Leprosy, in such habits, frequently supervened on a common boil, or after a burn, and the appearance of a white spot or white hair, was conclusive testimony of the unclean malady. If in any sore on the head, which was deeper than the skin, thin yellow hair was seen, it was regarded as a leprous scull. There are also various instructions given in this chapter, which were to guide the priest in detecting the leprosy in clothes. The*infected part is described as greenish or reddish, and the garment so infected was ordered to be burnt, if, after seven days, the infection had spread; but if it had not spread, it was only washed. If no change of colour ensued after such washing, it was then burnt; but where the colour of infection disappeared, after a second washing, it was pronounced clean.

We have also similar directions in cases of house leprosy, where the infection appeared on the walls of the house with hollow streaks, of a greenish or reddish colour, which penetrated the wall. If, after the lapse of seven days, the infection was spread, the law was, that the stones so infected should be taken out of the building, and the adjacent parts of the wall scraped, and the dust removed without the city; other stones and mortar were introduced in their place. But if, after such repair, the infection re-appeared, the house was pulled down, and its materials, stone, mortar and timber, were all carried out of the city. Such were the laws for leprous infections, for the leprosy of a garment, and of a house.†

We have nothing in the Mosaic account of leprosy, that assimilates it to elephantiasis, the symptoms of which, such as thick skin, fierce and staring eyes, hoarse voice, and falling of the hair, have no place in the Levitical description, yet how frequently are the two diseases confounded. Dr. Good, who brought the weight of his great learning to its consideration, has removed

* As I cannot give any satisfactory comment on this point, I shall only refer the reader to the original text.
† In Levitic. xii. the period of a woman's confinement in child-bed, was a period of uncleanness. For a space of seven days, while the lochia were present, she was considered in the same light as a woman removed; afterwards she was regarded as clean, but still confined to her house, on the birth of a daughter for 33 days, and on that of a son 66. Even the catamenia were regarded as impurities, and that this was the case in the infancy of the world, is clear from the answer of Rachel, in the 31st Genesis, 55th verse. And where there was a running issue, (as our version calls it,) the person so infected was unclean, as well as whomsoever he touched. The bed on which he lay, the stool or bench on which he sat, became unclean. Moses gave no laws relative to the plague, which is often mentioned in Scripture, and commonly rendered pestilence.
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much of the obscurity attached to this subject. The cutaneous blisters which had a tendency to terminate in leprosy, and which are enumerated in Leviticus, are briefly arranged by Dr. Good as follows:

1. Saa—Herpes or tetter, &c, Sept.; an irritated cicatrix.
2. Saphat—Porosis, or dry scale; dry sahaba.
3. Nétto—Porosis, or humid scale; moist sahaba.
4. Berat—Loose, bright white scale; the critical sign of contagious leprosy.
5. Book—Alphus, dull white scale; the critical sign of uncontagious leprosy.
6. Nega—Letus, blow or bruise, &c, Sept.
7. Shechin—Furunculus, or boil, as in Job ii. 7.
8. Mebuat—Anthrax, or carbuncle, literally a fiery inflammation.

It appears, from the Mosaic account, that the bright white leprosy was the most obstinate of all the forms which the disease assumes. Some change took place in the rete mucosum, from the white appearance of the hair. The pathognomic characters dwelt upon by the Hebrew legislator, were a glossy white and spreading scale, upon an elevated base, the elevation depressed in the middle, but without a change of colour, the black hair on the patches, which is the natural colour of the hair in Palestine, partaking in whiteness, and the patches themselves perpetually widening their outline: a concurrence of the whole of these characters was necessary to constitute a tsorat, or malignant leprosy.* Common as this form of leprosy was among the Hebrews, during and subsequent to their residence in Egypt, there is no evidence to show that it was known among that people antecedently. It is more probable, the degradation and thraldom to which they were reduced, the injustice of their treatment under a burning sun, with their bodies continually exposed to the dust of brick fields; to which may be added, impoverished diet, that all these proved predisposing causes of cutaneous diseases. From the Hebrew word tsorat, the Greeks borrowed the term psora, and it is probable, as Dr. Good observes, that psora, when first introduced into the Greek tongue, was of similar import to the Hebrew; but it soon gave way to the older term lepra, and having thus lost its primitive signification, it seems to have wandered in search of a meaning, being used variously at different times.

* The book mentioned in Lev. xiii. 39, was an uncontagious leprosy. We are informed in Niebuhr's Description de l'Arabie, p. 119, that one of the species of leprosy, to which the Arabs are subject, is by them still called bohabak, but that is neither contagious nor mortal; and in the note, p. 120, Fornak tells us, "The Arabs call a sort of leprosy, in which some little spots show themselves here and there on the body, behnaq, and it is, without doubt, the same as is named bohabak—Lev. xiii." He further says, "I saw at Mokha, a Jew who had the leprosy 'bohabak.' The spots of it are of unequal sizes; they do not appear shining, they are but very little raised above the skin, and do not change the colour of the hair; les taches sont d'un blanc obscur tirant sur le rouge; the spots arc of an obscure white, inclining to red."
times, sometimes to express one meaning, and sometimes another, till at last it was adopted to designate the psoriasis of the present classification—vide Dr. Good.

By attending to the account given of the sufferings of Job, it seems probable that the disease under which he labour'd, was a modification of elephantiasis. He was smitten with sore boils from the sole of his foot to the crown of his head. His skin was broken and loathsome, and covered with an eruptive disease, with burning pains in the bones, and great swelling, and so enlarged was his body, that, to use his own language, "by the great force of my disease is my garment changed, it bindeth me about as the collar of my coat; my skin is black upon me," &c. The emorods is another disease frequently alluded to in the Old Testament, and which probably resembled in its character the haemorrhoidal tumors of modern nosologists.* We have diseases of the bowels, consumption, dropsy, epilepsy, fevers, gout, gonorrhea, and other maladies, either mentioned or alluded to, as well as the operation of circumcision, castration, &c. It is probable that the application of herbs to wounds and sores, was known to the Hebrew faculty; we know that oils and emollient applications were. This may be inferred from the following passage of the prophet Isaiah; "from the sole of the foot even unto the head, there is no soundness in it; but wounds, and bruises, and putrefying sores; they have not been closed, neither bound up, neither mollified with ointment." The passage in Proverbs iii. 8; "it shall be health to thy navel, and marrow to thy bones," is another illustration borrowed from our art, and alludes to the practice prevalent in eastern countries to this day, of external medicaments (as plasters, ointments, oils, &c.) applied to the abdomen.

The direction of Isaiah to Hezekiah, when labouring under a fatal disease, is familiar to every one; "take a lump of figs, and they took, and laid it on the boil, and he recovered." In the story of Tobit, vi. 5—viii. 13, the gall of a fish is mentioned as being used to cure his father's eyes. Pliny, indeed, in his natural history, says the same thing; the gall of a fish, ad oculorum medicamenta utilius habetur. Lib. 28, c. 10. In Ezekiel xlvii. 12, it is said of a tree "that the leaf thereof shall be for medicine." No person had better means of knowing the state of the medical art among the Jews than Josephus, and, as it is a part of his history in which he could have no private feeling to gratify, and no prejudice to encounter, his incidental allusions to our art, must be received as valuable auxiliaries in illustration of this subject. Many such allusions might be selected; one or

* Deut. xxviii. 27.—1 Saml. 5, 6, 9, 12.

In Deut. xxviii. 27. "The Lord will smite thee with the bothe of Egypt, and with the emorods, and with the scab, and with the itch, whereof thou canst not be healed. The Lord shall smite thee with madness and blindness, and astonishment of head."
on the Medical Art Among the Jews.

Two will be sufficient for my purpose, and for others, the reader cannot do better than consult the work itself. After Herod had murdered Mariamne, he was plunged into the deepest remorse, "and in a few days," says Josephus, "he fell into a most dangerous distemper, and had an inflammation upon him, and a pain in the hinder part of his head, joined with madness; and for the remedies that were used, they did him no good at all, but proved contrary to his case, and so at length brought him to despair. All the physicians also that were about him, partly because the medicines they brought for his recovery could not at all conquer the disease, and partly because his diet could be no other than what his disease inclined to, desired him to eat whatever he had a mind to, and so left the small hopes they had of his recovery in the power of that diet, and committed him to fortune." And in another place, when Josephus himself was labouring under sympathetic fever, from an accident he had incurred, he says, "I therefore sent for the physicians, and while I was under their hands, I continued feverish all that day, and as the physicians directed, I was that night removed to Tarichea." Wherever Josephus alludes to our profession, there is nothing in his expression to lead the reader to suppose that recourse to our art was a thing of infrequent occurrence, but he speaks of it as a matter of course, whenever the health was such as to stand in need of aid. It is much to be lamented, however, that, with such ample means in his power, he has left so few materials which are of use in disclosing to us the state of the medical art, or the sciences connected with it. Of chemical knowledge there is nothing to shew any advancement; of anatomy, the continual recurrence of sacrifices gave them a better acquaintance; but of botany he makes but little mention. In describing, indeed, the golden crown, which adorned the head of the high priest, he states that from it "there arose a cup of gold, which resembled the herb which we called saccharus, but those Greeks, that are skilful in botany, call hyoscyamus. Now lest any one that has seen this herb, but has not been taught its name, and is unacquainted with its nature, or having known its name, knows not the herb when he sees it, I shall give a description of it. This herb is oftentimes in tallness above three spans, but its root is like that of a turnip, (for he that should compare it thereto would not be mistaken,) but its leaves are like to the leaves of mint, out of its branches it sends out a calyx. Now the fruit is preserved by this coat of the calyx, which fruit is like the seed of the herb seditis, it sends out a flower that may seem to resemble that of a poppy." And speaking of lepers, Moses, he says, suffered them not to come into the city at all, nor to live with any other, as if they were in effect dead persons; but if any one had obtained, by prayer to God, the recovery from that distemper, and had gained a health-

* Josephus was himself a priest, yet we find him sending for the physicians, which shews that the practice of medicine was a distinct profession.
ful complexion again, such an one returned thanks to God, with several sorts of sacrifices. The pestilence inflicted upon the Hebrews, as a mark of divine displeasure, for the sins of David, occasioned a great mortality among that people, for they did not, says Josephus, die after one and the same manner, or so that it might be known what the disease was, for it "carried them off by ten thousand causes and occasions, which those that were afflicted could not understand; for one died upon the neck of another, and the terrible malady seized them before they were aware, some dying immediately with very great pains and bitter grief, and some were worn away with their distempers, and had nothing remaining to be buried, but at the period when they fell, were entirely macerated; some were choked, and greatly lamented their case, as being also stricken with a sudden darkness; some there were, who, as they were burying a relation, fell down dead without finishing the rites of the funeral." In this plague, which lasted but a few hours, 70,000 perished. I ought to apologize for transcribing so copiously from an author who, probably, is in the hands of most of my readers, but as it was necessary to my subject, and as other authors have said so little upon it, there was no alternative, but to make use of the best means in my power. From the same author, it is easy to observe that the principal reliance of the Jewish physician, was upon herbs, rarely on minerals, for the treatment of diseases. Cold bathing was another remedy, which, indeed, formed part of the Levitical institutions.

That warm bathing was prescribed by the Jewish physicians, we have the evidence of Josephus more than once; and in the case of Herod the Great it was recommended. The symptoms which attacked that impious monarch, shall be told in the words of Josephus. "The distemper seized upon his whole body, and greatly disordered all his parts with various symptoms, for there was a great fever upon him, and an intolerable itching over all the surface of his body, and continual pains in his colon, and dropsical tumours about his feet, and an inflammation of the abdomen, and a putrefaction of his privy member, that produced worms. Besides which, he had a difficulty of breathing upon him, and could not breathe but when he sat upright, and had a convulsion of all his members, insomuch that the diviners said those diseases were a punishment upon him, for what he had done to the rabbins. Yet did he struggle with his numerous disorders, and still had a desire to live, and hoped for recovery, and considered of several methods of cure. Accordingly he went over Jordan, and made use of those hot baths at Callirhoe, which run into the lake Asphalitis, but are themselves sweet enough to be drunk. And here the physicians thought proper to bathe his whole body in warm oil, by letting it down into a large vessel

* This is a more brief, but more awful description, than the plague of Thucydidus or Lucretius.
ON THE MEDICAL ART AMONG THE JEWS.

full of oil; whereupon his eyes failed him, and he came and went as if he were dying. In another part, the same symptoms are described as a slow fire, which did not so much appear to the touch outwardly, as it augmented his pains inwardly, for it brought upon him a vehement appetite to eating, which he could not avoid to supply with one sort of food or other. His entrails were also exscurerated. From this account of Herod's fatal malady, from the pen of an unprofessional author, it is obvious that medicine must have been cultivated as an art in Judaea, and that the Jewish physicians had attained no mean proficiency in the knowledge and treatment of disease. On the supposition that chronic inflammation, or some spasmodic affection, was extant in the colon, or in any other portion of the abdominal viscer, the use of warm bathing appears to have been a judicious mode of treatment in either case. It seems, however, to have terminated in dropsical effusion subsequently, both in the chest and the abdomen, as well as oedema of the lower extremities, and probably a spashed state of the scrotum. In another part, Josephus makes mention of the hot baths of Tiberius, and from the following passage, it is probable they were ordinarily resorted to by invalids: "John wrote to me desiring that I would give him leave to come down and make use of the hot baths of Tiberius, for the recovery of the health of his body." It appears, therefore, clear, from the above testimonies, and from what has been recorded in Holy Writ, that, however little the ancient Hebrews were versed in the study of natural philosophy, and not much accustomed to recur to physical causy, yet that there was nothing in their Scriptures which absolutely forbade them to employ the means which Providence had placed at their disposal, for the alleviation of ordinary cases of sickness. In the Jewish theocracy more especially, the plague and the pestilence were the instruments of Divine vengeance, and we know that Miriam, Gehazi, and King Uzziah, were smitten suddenly with leprosy; the first, as a punishment for her detracting discourses; the second, for his avarice; and the third, for his presumption; and the Philistines were smitten with an ignominious disease, for not treating the ark with that respect it deserved. Many other diseases are recorded in Scripture, which were sent by God in the way of punishment. In all such cases, it is needless to say that mere human means were of no avail; to Him whose hand had inflicted the blow, the wisest and most religious had recourse for cure, and King Asa is blamed for placing his sole confidence in physicians, when he had a painful disease in his feet. Instances, too, are not wanting, where disease, and its consequence, were removed by the special interposition of God. Doubtless these awful examples of Divine power, would more immediately impress upon them the futility and insufficiency

* In all these quotations from Josephus, I have copied from Whiston's translation.
of human means, and lead them to a higher source; but it is equally true that they were not instructed to forego the aid of medicine, as may be deduced from a multitude of passages,* where allusion is incidentally made to our art, and to the virtue of herbs in relieving diseases. The Jews, too, believed that evil spirits were permitted to be the executioners of divine vengeance; and in the case of Job, we are told that Satan went forth from the presence of the Lord, and smote Job, with sore boils, from the sole of his foot unto his crown: and so in the case of Saul, it is written that an evil spirit from the Lord troubled him, &c.

With regard to the diseases recorded in the New Testament, they appear to have been principally of two kinds, such as occur under the ordinary dispensations of Providence, and such as were either associated with, or arose from, demoniacal possession, and all these became the subjects of the miraculous power of the Saviour. "They brought unto him, (says St. Matthew,) all sick people that were taken with diverse diseases and torments, and those which were possessed with devils, and those which were lunatic, and those that had the palsy, and he healed them." We find recorded, instantaneous cures of palsy, dropsy, leprosy, and other diseases beyond our art; the bloody issue, which St. Luke says, baffled all human remedies, healed by the touch of the Saviour's garment; the lame and the blind restored at his bidding. These were diseases common to men of every age and nation. There was also another class of diseases associated with demoniacal possession. I am aware how much controversy has been expended on this mysterious subject, but can any one really doubt the testimony of the inspired writers, when they positively inform us that a demon "enters into" a man, and "comes out" of him; when they represent the demons as speaking and reasoning, and hoping and fearing; as having inclinations and aversions peculiar to themselves, and distinct from those of the person who is the subject of the possession? They tell us of one unhappy sufferer who was vexed with many devils; and in the case of the demoniac of Gadara, they assure us that the devils were cast out of the man, and were permitted, at their own request, to enter into a herd of swine, and that immediately the herd ran

* Ezek. xxx. 21. Neither have ye healed that which was sick.
Exod. xxi. 19. He that smote him shall be quit, only he shall pay for the loss of time, and shall cause him to be thoroughly healed.
Jerem. lxi. 11. Go up into Gilead, and take balm, O virgin, daughter of Egypt, in vain shalt thou use many medicines; for thou shalt not be cured.
Jer. xxx. 13. There is none to plead thy cause; thou hast no healing medicines.
Jer. viii. 22. Is there no balm in Gilead, is there no physician there? why then is not the health of the daughter of my people recovered?
Ecclus. iii. 3. A time to kill, and a time to heal.
Hos. iv. 13. Yet could he not heal you, nor cure you of your wounds, &c.
violently down a deep steep, and were drowned in the sea. Surely this is a sufficient answer to those who contend that these possessions were nothing more than ordinary diseases.* Here the disease of the man was clearly transferred from him to the animals in question. Here we have a whole herd of swine possessed by the evil spirits, that had left the unhappy demiac. Who ever heard of swine afflicted with madness or epilepsy as a natural disease, in the way here described? St. Luke, himself a physician, speaks of a woman whom Satan had bound for eighteen years; and, in another place, he records the casting out of a dumb spirit, at whose expulsion the dumb spake. And St. Luke records the joy of the seventy, who returned, saying, "Lord, even the devils are subject unto us through thy name," Do not the inspired writers themselves make a distinction between diseases occurring in the ordinary course of nature, and those induced by the instrumentality of evil spirits? Those labouring under diseases, and those possessed by evil spirits, are mentioned as distinct and separate classes; and, in various passages, the power given to the disciples is thus, "to cast out unclean spirits, and to heal all manner of sickness, and all manner of disease;"* and in another place, "to have power to heal sicknesses, and to cast out devils."** Here are two distinct functions, power over ordinary diseases, and power over demoniacal possession. They are mentioned, indeed, in Scripture, as frequently combined, but not always. It is enough for us to know that, at the time of our Saviour's appearance in the world, such evil spirits were permitted to possess, and in various and dreadful manners to torment, the bodies of men, possibly as one means of displaying the Saviour's power. Nothing can, at the same time, evoke more strikingly the beneficent tendency of our religion, than that the miracles that were to fix upon it the seal of divine origin, were chiefly such as at the same time ministered to the relief of human suffer- ing. That the practice of physic, however, was prevalent in Judea at the time of our Saviour, is evident from the following

* I deem this a sufficient answer to those who assert that it was customary among the Jews to ascribe certain diseases, such as madness and epilepsy, to the agency of evil spirits, and that, upon this notion, the phraseology of the New Testament was built; just as Moses, in his account of the creation, adverts himself to the popular astronomy of the age, instead of giving the true system of the universe. But Moses no where nucleates a direct error in this respect; besides, the ease of the demoniacal possessions is very different. Surely the remarkable declaration of our Saviour himself to the Pharisees, in the 12th chapter of St. Matthew, might set this matter at rest. "Every kingdom divided against itself," &c. and "if Satan cast out Satan," and seq. Can Language be more decided than this? 

** I have taken the above from St. Luke, because I considered his testimony on this point, perhaps, more valuable than the other Evangelists; but instances abound in all the four Gospels.

† St. Matthew, x. 1.—Mark, iii. 15; i. 32, 34; and psalm.
passage, which must be considered as a direct sanction of our art; "and Jesus, answering, said unto them, they that are whole need not a physician, but they that are sick." One of the four evangelists we know was a physician, and it will be admitted, I think, as no small confirmation, if any such were needed, of the truth of the New Testament miracles, that one who records them more fully than the rest, was a physician; and as most of those miracles have a reference to healing the sick, had those cases been otherwise than what they profess to be, had they not been miracles, here was one every way qualified to detect their fallacy. Such evidence, therefore, to their truth, appears to me of unspeakable importance.

As might have been expected, St. Luke is more circumstantial in his narration of those miracles of our Saviour, which relate to the healing art, than the other Evangelists, and there is one indeed recorded by him, that of raising the widow of Nain's son, not to be found in any other part of the four Gospels. Nor does he fail, as often as he has occasion to mention diseases, or their cure, to select such appropriate language, as none but a professional man could have used, and such as marks some previous acquaintance with the Greek writers. The following examples I have extracted as illustrative of this peculiarity of St. Luke.

The term ἐπικηρύσσεις applied to the man who had the dropsy, and was healed by our Saviour, occurs only in Luke. There is no mention of it in the other Gospels. The part. pass. perf. ἐπεκαλέσθη is several times used by St. Luke, when speaking of one afflicted with palsy, whereas the other Evangelists employ the word ἐπικηρύσσεις, which is never so used by the Greek writers. When Elymas, the sorcerer, was miraculously punished by St. Paul with blindness, St. Luke says ἑπεκαλεθέντος ἐν πυτὸν αἰχμῆς. The word αἰχμῆς is nowhere else used in the four Gospels, and was probably a medical term, as we find Galen, who wrote after the time of St. Luke, stating that a certain disorder of the eye is called αἰχμῆς, and those that are afflicted with it, διά τοῦ αἰχμῆς νόσου βλαβῶν, "seem to see through a sort of thick mist or fog." The medical term ἐπικηρύσσεις appears in St. Luke's writings, not in the other Gospels. The expression for surfeiting or excessive drinking, used by St. Luke, is ἱππατός, which I observe in a passage of Hippocrates now before me.

In speaking of Simon's wife's mother, who was taken with a great fever, (Luke iv. 38,) he uses the term ἐπικηρύσσεις in the same sense that the Greek writers do. The same may be said of the term ἐπικηρύσσεις for healing, which is not employed by the other Evangelists.

The father of Publius, who was miraculously healed by St. Paul, is described by St. Luke as ἐπεκαλέσθη ἐν ἑπικηρύσσεις. The woman* who had an issue of blood, is described by St.

* And in describing the cure of the same woman, St. Matthew says ἔσωθή, and St. Mark states, "and straightway the fountain of her blood was dried;"
Mark as one who had suffered many things of many physicians, and had spent all that she had, and was nothing bettered, but rather grew worse. St. Luke describes the same thing, yet when called upon to allude to his own profession, speaks with more reserve, and instead of saying how much she suffered by many physicians and grew worse under their treatment, contents himself with saying that her disease was beyond the reach of any of them to remove; and in this allusion to the expense incurred by the woman, he selects a more suitable term προσωπαλαυστήριον, than is used by St. Mark, who employs the word δανεῖσθαι, properly applicable only to spending in a riotous and luxurious manner, and so St. Luke uses it in the case of the prodigal son. In various other passages, also, it is easy to trace the same peculiarity and propriety of expression, resulting from the professional bias of the medical Evangelist. When the other Evangelists speak of diseases and cures, they employ such terms as were of ordinary use, but not so St. Luke. His phraseology, in matters relating to healing, savours of his medical education; and, indeed, his language in general is superior to that of his brother Evangelists, as might be expected from his previous pursuits. He is the only one of the Evangelists who informs us of the manner of Herod’s death, viz. that he was smitten by the Almighty for his blasphemy, and was eaten of worms. I the more readily mention this fact, because in the account which Josephus has given us of the fearful end of Herod Agrippa, (which corresponds with that of St. Luke,) he conceals the horrid circumstance of his being eaten by worms, though he expressly mentions this symptom in the last illness of Agrippa’s grandfather, Herod the Great, calling it τὰ καίνα ὑποκατάλημα μονόμενον. Other peculiarities of St. Luke will occur to the critical student, but those I have already enumerated, are some of the most prominent proofs of the force of early habits and education on the writings of the medical evangelist. There are also many other passages in the Old and New Testament, which might have been introduced in this paper, indirectly, indeed, but decidedly proving the advanced state of many of the arts among the Jews. But the fear of having already encroached too largely on the patience of the reader, prevents me from pursuing this subject, which, however, should be interesting to all, and which will, I trust, hereafter draw that attention, and those talents, to its consideration, that its importance so eminently deserves.

but the expression of St. Luke is more concise and appropriate, when he says ἐπὶ ημῖν. Nor is the description of the epileptic demoniac less accurate; "and, lo, a spirit taketh him, and he suddenly crieth out: and it teacheth that he fometh again, and bruising him, hardly departeth from him."

* Vide Luke, vi. 19; vii. 10; viii. 56. The words αἰλέω, καταλυω, δίων, καπεδίς, and many others, might be enumerated, as indicative of this professional bias on the part of St. Luke.

† Antiq. lib. 17, cap. 6.