

ARTICLE V.

BIBLICAL EPIDEMICS OF BUBONIC PLAGUE.

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THE recent outbreak of bubonic plague in different parts of the world, after a long period of quiescence, and its brief, unwelcome visitation to our own land, create an interest in this disease which it would not possess if it were extinct, and all we knew of it had to be gathered from records stretching away into the remote past. For plague is certainly one of the most ancient of all diseases: to quote a Shakespearean phrase, it is "blasted with antiquity." The earliest notice of it in secular literature is contained in the writings of Rufus of Ephesus (*circ.* 100 A.D.), who refers to records concerning an epidemic in the third century before Christ, which ravaged Egypt, Syria, and Libya,—an epidemic which was undoubtedly plague, for the contemporary physicians described it "as accompanied by an acute fever, by terrible pain, by a trouble of the whole body by delirium, and by the appearance of large buboes, hard and without suppuration, not only in the usual positions, but also behind the knee and at the elbow." A careful study, however, of the events recorded in the early chapters of the book of Samuel,¹ has led several writers² to the opinion that here is the most ancient of all records of an epidemic of bubonic plague (*circ.* B.C. 1100).

The biblical story, supplemented by Josephus,³ is as follows:

¹ I Samuel iv.-vi.

² George A. Smith, *Historical Geography of the Holy Land*; Clemow, *Geography of Disease*.

³ *Antiquities of the Jews*, vi. 1.

In one of the battles which occurred during the long and incessant struggle for religious and political supremacy between the Philistines and the Jews, the latter were defeated with great slaughter. The contest was renewed after a short time, and to insure success the Jews carried their sacred ark with them into battle. The Philistines fought desperately, inflicting such a severe defeat upon their enemies that thirty thousand were left dead on the battle-field. The ark was captured, and taken by the Philistines to the city of Ashdod, where it was placed in the temple of their own god Dagon. Ashdod was a city of great commercial importance about three miles from the sea-coast, on the high road of traffic between Egypt and Syria. Almost immediately after the ark's arrival, there was an outbreak of disease in the city and surrounding parts. The biblical writer regards it as an exhibition of Divine wrath upon the Philistines for their sacrilegious detention of the ark. "The hand of the Lord was heavy upon them of Ashdod, and he destroyed them, and smote them with tumors [or plague boils], . . . and there was a great and deadly destruction in the city."

According to Josephus, many of the Philistines did not see it in this light, but considered the epidemic as simply due to natural causes. They exhorted their fellow-citizens "to be quiet, and to take patiently what had befallen them, and to suppose there was no other cause of it but nature, which at certain revolutions of time produces such mutations in the bodies of men, in the earth, in plants, and in all things that grow out of the earth." But the fears of those who were unable to bear their misfortunes with stoical fortitude, could not be allayed by these philosophical speculations as to their remote cause. "Perceiving that they suffered thus because of the ark, and that the victory they had gotten . . . was not

for their good," with a painful absence of unselfish patriotism, they sent the ark to their neighbors of Gath, about ten miles away. The disease soon appeared among the latter, and evidently with increased virulence. "The hand of the Lord was against the city with a very great discomfiture; and he smote the men of the city both small and great, and tumors brake out upon them." Accordingly, arrangements were made in all haste to send the ark away. The inhabitants of Ekron were the next to receive the ark, and their fate was still worse. "There was a deadly discomfiture throughout all the city: the hand of God was very heavy there. And the men that died not were smitten with the tumors, and the cry of the city went up to heaven." The ark was then taken to the remaining cities of the Philistines, in every place, as Josephus says, exacting similar disasters, as a tribute to be paid it for coming among them.

At the end of seven months, the Philistines, considering they had suffered enough, and afraid of further calamities, determined to return the ark to the Israelites. Taking the advice of their priests and diviners, they sent with it, as a trespass-offering to appease the wrath of the offended Deity, "five golden tumors and five golden mice," corresponding with the number of their principal cities, "for one plague was on them all and on their lords." The ark was sent therefore into the country of the Israelites, and was received with great joy by the inhabitants of Bethshemesh, a village near the frontier. But misfortune continued to follow in the track of the sacred procession; the plague still clung to the ark. The joy of the villagers was soon turned into sorrow and consternation, for "the Lord smote many of the people with a great slaughter."

The text here is very uncertain. Whether those who died

were punished for irreverence, or because they did not rejoice with the others when they saw the ark,—which is hardly to be wondered at under the circumstances,—we do not precisely know; nor do we know the exact number of those who died, though it is given as 50,070. Probably this means that seventy died in Bethshemesh, and fifty thousand during the whole course of the epidemic. At any rate, many died in the village, and as the physical cause of death is not given, no doubt they died from the same disease as the Philistines. But the prevalence of the epidemic was now to cease. The inhabitants of Bethshemesh sent a message to the people of Kirjath-Jearim, a town high up on the hills, begging them to come and take charge of the ark. The request was willingly assented to, and so, for the first time since the outbreak of the disease, the ark passed into the charge of people who had not been, and were not likely to be, in constant communication with those among whom it was prevalent. There was a complete break. Moreover, in Kirjath-Jearim, the ark was placed in the house of a priest, who, necessarily from his calling, would scrupulously observe for himself and his household all the admirable regulations of the Mosaic sanitary code. There the ark remained for twenty years, and we read nothing further of the epidemic.

Almost every feature of this narrative fits in with the opinion that it is an account of an epidemic of bubonic plague.

1. *The symptoms of the disease correspond with those of plague.*—The sacred historian, not writing a medical treatise on the subject, mentions only the most characteristic symptom,—the tumors or plague boils. But this of itself is enough to identify the disease. “No other idiopathic fever attacking a multitude of persons at the same time is characterised by glandular swellings, by carbuncles, and by those severe

manifestations of the nervous, sanguineous, and biliary systems which declare themselves in an attack of plague.”¹ A very severe form is chiefly marked by vomiting of blood, as in the outbreak on the Lower Euphrates in 1873; and of the Justinian epidemic Gibbon writes: “In the constitutions too feeble to produce an eruption, the vomiting of blood was followed by a mortification of the bowels.”² It is very interesting to observe that, according to Josephus, death came upon the Philistines very suddenly: “For before the soul could, as usual in easy deaths, be well loosed from the body, they brought up their entrails, and vomited up what they had eaten, which was entirely corrupted by the disease.”³ In the most terrible form called the “fulminant,” people are struck down very suddenly, and die before the tumors have time to develop. The inhabitants of the city of Ekron were visited by this type. “And the men of the city that died not [immediately] were smitten with the tumors.”

Apart altogether from philological grounds, the “emerods,” or hemorrhoids of the old version, must be an incorrect translation, for hemorrhoids, although extremely common in Oriental countries, never attack multitudes of people in this sudden manner, and are never the sole cause of death.

2. *The predisposing causes were the same as in other epidemics of plague.*—The misery and destitution which inevitably follow in the track of war, and the enormous number of dead, many of them doubtless left unburied on the battle-field, are precisely the conditions which have often preceded an outbreak of plague. When it appeared in Persian Kurdistan in 1863, it was observed that the infected district was per-

¹ Art. “Plague” in Quain’s Dictionary of Medicine.

² Decline and Fall of the Roman Empire.

³ *Op. cit.*, x. 1.

vaded with the putrid emanations from the unburied bodies of cattle which had died from the murrain. Creighton, in his "History of Epidemics," also lays stress upon cadaveric putrefaction as a factor in producing the disease.

Further, the cities of the Philistines were only a few days' march from a region "which has been stigmatized in every age as the original home and seminary of the plague." The great highway of commerce and war between Asia and Africa, after leaving Gaza, the most southern Philistian city, passed near various salt marshes along the coast, the largest of which was known as the Serbonian Bog; from there the road passed to Pelusium and the delta of the Nile. The natural conditions of a hot, humid climate, and great stretches of mingled salt and fresh water, were such as to favor the development of any epidemic, and so also was the miserable condition of the people. "The Serbonian Bog was surrounded by communities of salt-makers and fish-curers: filthy villages of undersized and imbecile people who always had disease among them." "It is not surprising, therefore, to find that armies passing through this region were nearly always decimated by pestilence." "It was here that Sennacherib's army was smitten with pestilence, and melted northwards like a cloud; here, in Justinian's time, the plague started more than once a course right across the world; here a Crusading expedition showed symptoms of the plague; here in 1799 Napoleon's army was infected with the very fatal *fièvre à bubons*, and carried the disease into Syria, while the Turkish force that marched south in 1801, found the plague about Jaffa and in the delta."¹ Ashdod, the city where the biblical epidemic first appeared, was on this direct line of communication, and thither came the Philistian soldiers after their campaign, so

¹Smith, *Historical Geography of the Holy Land*, chap. viii.

that none of the predisposing and exciting conditions, including filth and overcrowding, appear to have been wanting.

3. *The mention of swarms of mice in connection with the disease is an indication that it was plague.*—In the biblical narrative it is stated, that, “in the midst of the land thereof, mice were brought forth”; “the land swarmed with mice”; they “marred the land.” In fact, the connection between mice and this particular disease had been so impressed upon the minds of the people by past experience, that the golden image of a mouse had been adopted as its special symbol.

It is now well known that many of the lower animals, especially rats, and mice, and other rodents, and the parasites that infest them, are important agents in the propagation of plague, and die themselves in large numbers from it. Even before the plague attacks human beings, it destroys these animals. In one of the most important and ancient of Hindoo writings,¹ the people are instructed to quit their homes, and go to the plains, as soon as they observe that rats fall from the roof above, jump about, or die. In the recent Chinese epidemic, masses of dead rats were seen in the streets of Hongkong, and at one gate alone, in the city of Canton, the keeper collected and buried no less than twenty-four thousand of these animals. Where the plague was in every city and all over the country side, as among the Philistines, it is easily credible that rats and mice died in such numbers as literally to “mar the land.”

Reference may here conveniently be made to a later biblical epidemic which occurred about B.C. 701. It has already been mentioned that it was in the region of the Serbonian Bog, where the main division of Sennacherib's Assyrian army, sent

¹ *Bhâgavata Purana.*

against Egypt, was partially destroyed and totally dispersed. In this event, also, it is almost certain that when

“the angel of death spread his wings on the blast,
And breathed on the face of the foe as he passed,”

the mundane cause of death was bubonic plague. Josephus, quoting from the Chaldean author Berosus, states that when Sennacherib was returning from his Egyptian war, he found his army under the Rab-shakeh, in danger by a plague, for God had sent a pestilential distemper upon his army. In the narrative of the same event by Herodotus,¹ rats and mice again play a singular part. According to this author, the reigning Egyptian king had alienated the military caste, and it refused to go with him to fight against the Assyrians. In his extremity he prayed for help from his god Vulcan, and this in a vision was promised to him. “Confiding in this vision, he took with him such of the Egyptians as were willing to follow him, and encamped in Pelusium, which commands the entrance into Egypt; but none of the military caste followed him, only tradesmen, mechanics, and sutlers. When arrived there, a number of field mice, pouring in upon their enemies, devoured their quivers and their bows, and the thongs of their shields; so that on the next day, when they fled bereft of their arms, many of them fell. And to this day a stone statue of this king stands in the temple of Vulcan, with an inscription to the following effect: “Whoever looks on me, let him revere the gods.’”

It is obvious that the plague had driven from their usual haunts multitudinous swarms of rats and mice. It does not necessarily follow that all were diseased. In the epidemics in the Himalayas of 1864, we are told that rats quitted the various villages in anticipation of the disease, and the people,

¹ History, ii. 141.

taught by experience, recognized the exodus as a warning.¹ It is quite conceivable, therefore, for rats and mice, in their hunger and desperation, to have devoured the leather parts of the weapons and accoutrements of the Assyrian soldiers. In the ignorance of those far-off times, this comparatively minor incident is given prominence, to the exclusion of the far more important part which these animals contributed towards the destruction of the army by acting as the carriers of contagion.

As the plague is a disease which attacks both rich and poor, every rank and profession, indiscriminately, it was not confined to the Assyrian army, but reached their opponents as well. About this time we read that the Jewish king, Hezekiah, was seized with a dangerous illness.² No particulars are given beyond the statement that he had a "boil," or carbuncle, as some propose to translate it. Now to a man "in the noontide of his days" as was Hezekiah, apart from some constitutional disease an affection of this kind is seldom a serious affair. The case is very different, however, if the "boil" or carbuncle is an expression of the plague, and it is not always easy to discern this. During the course of the present epidemic in India, the diagnosis of plague made in a

¹ Pringle, *British Medical Journal*, Aug. 8, 1896. Cf., also, the following curious incident recorded in the *Lancet*, May 31, 1902, p. 1565: "The province of Gujerat has lately been overrun with rats in enormous numbers. The young crops have been eaten up and great damage has been done. The excess has been amongst field rats, and the extraordinary fact is that they have disappeared almost as rapidly as they came. Although plague is existent to a small extent in certain places, this disease has not been the cause of their diminution. They have in reality been starved. There have been no crops in the fields except tobacco, castor, and aniseed, for none of which do they seem to care. . . . There is no evidence that the rats have died from plague or from any other form of septicæmia."

² *2 Kings xx.*; *Isa. xxxviii.*

particular case by the native medical officer being questioned, the patient was examined by a number of English physicians. At least one of them declared the man to be suffering from a simple boil, and all came to the conclusion that it was not the plague. Nevertheless, the man died within twenty-four hours, and they were then convinced that it was the plague, of the carbuncular type.¹

If this was the type of Hezekiah's disease, as seems very probable, considering all the circumstances and the prevalence of plague at the time, his exalted rank no more protecting him than it did the Emperor Justinian, we can understand the prophet's abrupt announcement as soon as he saw the king's condition: "Set thine house in order, for thou shalt surely die." Impressed with the sense of his great danger, the king prayed to God for longer life, and his request was granted. The prophet returned and gave him the assurance that he would live. Natural means of cure, however, were not disregarded; the simple remedies of those days were directed to be used. When plague tumors remain hard and dry and the skin above them unbroken, "mortification quickly ensues, and the fifth day is commonly the term of life; but if they come to a just swelling and suppuration, the patient is saved by this kind and natural discharge of the morbid humor." One of the measures employed even to-day to hasten suppuration is poulticing, and in ancient times figs were commonly used for this purpose. "Figs are applied topically," writes Pliny,² "in all cases where sores require to be brought to a head or dispersed." Accordingly, Isaiah directs a poultice or plaster of figs to be laid on the boil, and the king recovers. But so narrow had been his escape, that

¹ Hoesack, art. "Diagnosis of Plague," *Lancet*, Nov. 24, 1900, p. 1487.

² *Book xxiii. c. 63.*

for the remainder of his days the king declared he would walk as in a solemn procession. It may be objected that no mention is made of any epidemic prevailing among the Jews at this particular time; but this need not occasion any difficulty. As a rule, national disasters are only narrated when they are clearly seen to be the result of national sin. Moreover, with the departure of the Assyrian soldiers to their own country, the disease had probably spent its greatest force; the remaining cases would then appear to be sporadic. In any event, the illness of the king would attract the attention of the analyst far more than would sickness among the people.

As to the appalling mortality of over fifty thousand in the Philistian epidemic, and the death of one hundred and eighty-five thousand soldiers of Sennacherib's army, there need be little cavil. In the Justinian epidemic, a "myriad of myriads" are said to have perished. In the European epidemic of the fourteenth century, twenty-five millions died. In the Great Plague of London of 1665, about seventy thousand died. Six hundred thousand have died during the course of the present epidemic in India, and it is still pursuing its dreadful course.

With somber detail the different historians dwell on the homes made desolate by this terrible scourge. In the Justinian epidemic, "the order of funerals and the rights of sepulchers were confounded: those who were left without friends or servants, lay unburied in the streets or in their desolate houses, and a magistrate was authorized to collect the promiscuous heaps of dead bodies, to transport them by land or water, and to inter them in deep pits beyond the precincts of the city." When the plague was in London, Defoe tells of a family ten in number, counting the servants, who were all seemingly well on the Monday; "that evening one maid and

one apprentice were taken ill, and died the next morning; then the other apprentice and two children were touched, whereof one died the same evening and the other two on Wednesday. In a word, by Saturday at noon, the master, mistress, four children, and four servants, were all gone, and the house left entirely empty, except an ancient woman, who came to take charge of the goods for the master of the family's brother, who lived not far off." ¹ It was a saddening event of this kind to which the prophet Amos alludes in the words: "And it shall come to pass, if there remain ten men in one house, that they shall die. And when a man's kinsman and the man to burn him, shall lift him to bring the body out of the house, they shall say unto him that is in the innermost part of the house, Is there any yet with thee? and he shall say, No. Then shall they say: Hold thy peace, for we may not make mention of the name of the Lord." ²

The text again is somewhat obscure, but, as the commentator well says, the uncertainty "does not weaken the impression of its ghastly realism: the unclean and haunted house; the kinsman and the body burner afraid to search through the infected rooms, and calling in muffled voice to the single survivor crouching in some far corner of them, 'Are there any more with thee?' and his reply, 'None:—himself the next.'" ³ And then, in the terror of superstition, the injunction to silence, lest mention of the name of Deity should loosen some fresh avalanche of his wrath.

Although scenes such as these are still common in India and other Oriental countries, we are happily so unfamiliar with such visitations, that when we hear of them our imagination and interest are but faintly stirred. Yet it is well to

¹History of the Plague.

²Amos vi. 9-11.

³G. A. Smith, *Book of the Twelve Prophets*, Vol. i. p. 178.

remember that our deliverance from such epidemics is due to sanitary laws wisely made and faithfully administered by authorities ever on the alert to guard the public health; and the frightful suffering and loss of life in the epidemics here alluded to or described, have been part of the heavy price which the human race has had to pay to learn unforgettably the laws of physiological as well as of moral righteousness.