prove the argument, the Latin version (1715) is again "proffered." The statement is advanced that David contracted syphilis from Uriah's wife, (see narrative chap. xii. Kings). The reader will remember that this Latin version does not give the same division of its contents into books and chapters, as our common version, which *we* prefer; and we ask your attention to II. Samuel, chap. xii. In this we recognize the blackest chapter in the life of David. Much more space is given in the Bible to this one crime than to many of his virtuous achievements. The object in this will be seen by the Bible scholar as obvious; a line of thought which, were we to follow would lead us farther from the subject now in hand; and we will but glance at it from this direction, viz.: the simple fact that this was a great sin against God and Uriah, does not establish the fact that Bathsheba had syphilis. Again, the child dying does not prove the same. While the twenty-fourth verse, tells us that, "David comforted her and went in unto her, and she bare a son, and called his name Solomon, and the Lord loved him."

The reader will very readily see the time here mentioned is remarkably short for Bathsheba and David—both pronounced syphilitics—to recover sufficiently to bring forth so healthy an offspring as Solomon. If the first was a case of congenital syphilis, what can we look for in the second? Our best judgments in this case would hesitate before pronouncing either of them syphilitic. Stopping just to glance at the lamentations referred to by the Doctor, we would ask the reader to consider the following, (these are all the quotations contained in the Scriptures, wherein the word, bones, is mentioned) and see if there are any syphilitic bones to be discovered among them: Ps. 6: 2; 22: 14; 31: 10; 32: 3; 35: 10; 38: 3; 42: 10; 102; 3: 5. Particular attention is asked to the prophetic psalms, the twenty-second having been quoted by the Doctor, which is conceded by our most biased Bible scholars to contain no allusion whatsoever to David, but is a grand prophetic description of the sufferings of Christ, whom none would declare to be syphilitic.

The reader will see many words occurring in the Latin (1715) so preferred by the Doctor, that do not occur in any place in our common versions. For instance, the words, cure and mocked, do not appear in the Psalms. As for the words, opprobrium, healthy, ulcer, or ulcers, they are not in the Bible, i.e., our common version. The careful student, looking more for Scriptural facts than a diagnosis of syphilis, will plainly see the Psalms, especially the prophetic, are speaking so beautifully and often in poetic metaphor of the coming Christ, and not the syphilitic symptoms of which David the king, is supposed to be the direct sufferer. Proof of this will call our attention to the thirty-eighth Psalm as a sample of what they contain, regarding the punishments by disease inflicted upon David, as mentioned by Dr. Buret. I would ask the reader to consider, with this Psalm, in order to better define our argument, what the punishment was: See Ps. 6: 1; Deut. 32: 23; II. Sam. 16: 12; Ps. 31: 10; 40: 12). By this, we are more enlightened regarding the use of such terms as arrows, bones, loins, etc. The word, loins, being considered by all Bible scholars as being the seat of strength; a weakened or exhausted condition therefore calls forth groans, etc. (See Rom. 8: 26).

The reader of Dr. Jelks' paper will notice great em-

phasis is laid on such symptoms as are recorded in the seventh verse of the thirty-eighth Psalm. This is one of the very strongest arguments that David was syphilitic: "For my loins are filled with a loathsome disease: and there is no soundness in my flesh." See also, second verse of same Psalm: "For thine arrows stick fast in me, and thy hand presseth me sore." These have been previously alluded to and commented on. The word, tongue, is found only in the following Psalms: (Ps. 22: 15; 35: 28; 39: 1, 3; 45: 1; 51: 14; 66: 17; 119: 172; 137: 6; 139: 2). The reader of these will see at a glance there is no reference whatsoever to a disease of any kind. The worship of Baal-peor, as quoted by the Doctor will, I think, receive the indorsement of all Bible students, as the narrative seems clearly to show that this form (and they were many) of Baal worship was connected with licentious rites. The bloody health officer, Moses, however, did not slay (kill by the steel) twenty-four thousand. Here another great difference may be seen between the two versions: Verse nine of this twenty-fifth chapter of Numbers reads: "Those that died in the plague (what plague, syphilis or ?) were twenty and four thousand." However, you will see in I. Cor. 10: 8, only twenty-three thousand perished from pestilence. By this, we must remember Moses includes the thousand *only* who died by the execution of the judges. In other words, Moses only caused to be killed, one thousand.

Dr. Buret's Chinese history will permit of no question by the writer—neither the historic skulls and tibiae excavated from the caves and dolmens of France, the tombs of the Incas, or mounds of the United States; in these every physician will agree, having any knowledge whatever of syphilis and its lasting results.

To the medical profession, the writer would say: This has been written in reply to those arguments presented by the Doctor, regarding the persons mentioned; not defending the great wrongs, which were many (especially David's), but as the old saying reads: "Give the Devil his due." After a careful study of the subject the writer does not dispute the existence of syphilis among the Hebrews, and every other people that ever existed, since the foundation of the earth. But we think our common versions *will not bear us out*, in pronouncing the disease upon either of the prominent Bible characters mentioned by Drs. Jelks or Buret. A glance at Bible history will convince the reader, why these Latin versions (and they are many) are not pronounced to-day as correct versions, particularly the version of 1715.

MIGRATION OF SYPHILIS FROM EAST ASIA INTO AMERICA BY WAY OF THE BEHRING SEA.

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In the October issue of the *Sci-I-Kwai Medical Journal* re-appear two articles of mine, both on pre-Columbian syphilis, in which I endeavor to show a possible relation between East Asia and pre-Columbian America.

The antiquity of syphilis in Japan and China is admitted by all Japanese students. Waké and Tamba, who both belong as far back as the seventh

century, mention this disease. The authors of the *Dai-do-rui-shiu-ho'* refer to a medicine used against it by Sukunahiko, the Esculapius of Japan, who lived in the time of Jimmu Tennō (660 B. C.) In China, syphilis was certainly known in the Chu dynasty 1122 B. C. to 314 B. C. From China the disease is supposed to have come to Japan, in the migratory way, landing first at some harbor in the Hijien district, it may have been Nagasaki. Hence, the newcomer spread in all directions over Japan.

China itself seems to have imported syphilis from the south, as it has received smallpox from the north. Both these facts are affirmed by very hoary authorities; they call syphilis the demon of the south, and smallpox the demon of the north. They have no doubt but that the first of these monsters originated in heat and moisture, the southern elements, and that the other was born from cold and frost, the elements of the north.

If I observe here that smallpox penetrated first into northern Japan, being introduced from Tartary, the reader, remembering what I said before, that syphilis first settled in Hijien, will be struck by the fact that the same thing happened here as in China: syphilis from the south, smallpox from the north. We may presume, therefore, that there was some reason for the belief of these ancient writers, that syphilis arose in heat and moisture, and smallpox in cold and frost; besides, it is but fair to consider that these writers were 3,000 years nearer to the origin of both plagues than we are.

Let us see whether the same manner of introduction which we have found in China and Japan, is also that of American syphilis.

Syphilis is admitted by Prof. Brinton to have existed in America when Columbus landed. Yet this author will not see any connection between ancient Americans and East Asiatics; in fact, he denies it positively. He is inclined to think that the disease existed independently in America and in Europe, and that Columbus, therefore, could not have introduced it from Europe to America. Now, if syphilis existed in America, that is the now Spanish America, before the arrival of Columbus, it either originated in the south, in moisture and heat, to speak with the Chinese, for nowhere but in the south have we any evidence of its presence, or it was brought over, say from China or Japan. This happened, if at all, by way of migration, for commerce there was none. We hear, indeed, of a drifting of Chinese junks to ancient Peru and Ecuador; of course, this may be only a myth. But the fact that the Aztecs of Mexico, and the Incas of Peru, the most ancient American races, came from the north, is not mythical. If they came from the north, say from the Behring Sea, it is reasonable to believe that they crossed from the nearest point of Eastern Asia.

Mr. Farnsworth, recently, in *Science*, speaks of the carvings and designs of the Alaskans and Vancouver Indians as being Japanese in appearance. He also believes that at some remote period, some people from Japan had drifted into these regions, and left there traces of the arts of the mother country. It seemed to him that some Indian traditions clearly point that way. "In looking over the collections in the Exposition at Chicago," says Mr. Farnsworth, "it occurred to me to verify these facts. In the Anthro-

pological Building was a large collection of 'totem poles,' carved implements, and drawn figures from Alaska, also from California, Mexico, Central America and Peru, as well as from other parts of the Americas. In many places Japan was largely represented.

"There is a most striking difference between the arts of the Western coast and the interior of America. They have something of the grotesqueness of Japan, but not much other likeness. They are akin to those of ancient Mexico, and would indicate that the arts and the people of the Western coast were of like origin; that the 'totems' and other figures of Alaska and Vancouver are survivals of the arts of Central America and ancient Mexico."

Now, if a Japanese settlement was formed in Alaska, syphilis must have existed in it, and if the Alaskans and Vancouver Indians were directly connected with Central America and Mexico, the syphilis of these two countries from which we derive our first knowledge of American syphilis, had a northern origin.

Judge Wickersham of Tacoma, Washington, thus speaks in *Science*, Dec. 8, 1893, under the title, "Pottery on Puget Sound:" "That the reader may not be misled by the above headline, I hasten to say that there never was any aboriginal pottery made either on the Columbia River, Puget Sound or in the regions northward to Alaska. Baskets of such strength, firmness and texture were made, however, that the absence of pottery was not a hardship upon the Indians, for they carried water in baskets, and even boiled food in them by the use of hot rocks constantly dropped in the water. But what lesson, if any, can the ethnologist learn from the absence of pottery on this Northwest coast?"

"Let us first look at the character of the civilization existing here prior to the advent of the white man, and compare it with that of other localities—say San Francisco Bay, but a few hundred miles farther south on the same shore. The Indians of Oregon, Washington, British Columbia and Alaska made and constantly used the finest canoes in the world, capable of holding fifty or sixty men. They fearlessly pursued the whale on the Pacific Ocean far out of sight of land; and fastening their harpoons to the monster, by the use of inflated bladders they caused him to float, and after his death he was towed by a line of great canoes to the shore, where, landing the huge carcass, his captors feasted in truly Indian style. But a few hundred miles away the Indians of San Francisco Bay rode on a raft or bundle of reeds! The conclusion follows irresistibly that a different aboriginal civilization existed from the Columbia River northward to Alaska than that on San Francisco Bay. From a careful examination of the archaeological remains it seems quite certain that the lines connecting the middle type of civilization of the Puget Sound region with other American civilizations lay—one up the Columbia and across to the Ohio region, and the other by way of the Snake River, Great Salt Lake and the Pueblo region, and connecting with the Mexican country. But in each of these regions—in Ohio and Mexico—we find pottery in abundance, but none in the Puget Sound basin. This can not be on account of lack of material, for the finest potter's clay exists in great beds throughout this region on the surface, and many potteries now work it. What is the conclusion,

¹ A work composed 806-809 A. D.

then? It is that the high civilization of the Northwest coast did not come either from the East or South!

"This middle type of civilization on Puget Sound made splendidly carved war canoes; the finest basket work in America; featherwork like the Aztecs; metates like those of Moqui; woven blankets equal to the Navajo; worshiped the sun like the Mexican, and made stone gods equal in carving to those of Central America; as carvers of wood they have no equals in America; they were artisans skilled in carving, weaving and painting; they built permanent homes of great posts and cedar boards, exactly like the Mongolian tribes of Asia—exactly like the Japanese; their beds were arranged on each side of the house on platforms in the true Mongolian style; their language yet preserves the identical tongue spoken by the Apache and other southern Athapascans; many pure Aztec words linger north of Puget Sound—and yet they made no pottery!

"No nation ever lost the art of pottery-making. The art never was known to the people of this northwest country; though they are cousins to the Algonquins and Aztecs, and brothers to the Apaches, yet they had not the art possessed by these people of making vessels from clay. Not a trace of the potter's work can be found in the Columbia River or Puget Sound regions. Although these people are of kin, yet in this particular they are as distant as the poles. It follows that the Athapascans of Mexico learned the potter's trade after they left the early home of their kinsmen on Puget Sound; it also follows that the Apache and kindred tribes were migrants from the North, and it is true that the Algonquin was not a potter until after he reached the Mississippi Valley.

"It seems to me that one certain result follows from the known facts, viz.: That the Athapaskan tribes of Mexico, and possibly the Aztecs, migrated to Mexico from the Puget Sound region—for if our Athapascans came to the North from Mexico and settled in the Puget Sound basin, why did they not bring that most characteristic manufacture, pottery, with them? I take it that the conclusion must be conceded that the migration was southward, and not by San Francisco Bay, either, but via Great Salt Lake to Mexico.

"Humboldt, Prescott and other eminent authorities place Aztlan, the ancient Aztec hiving place, in the Puget Sound region, and certainly the absence of pottery here is a strong additional fact in support of their statements. If, now, it be conceded that the hiving place of the Aztecs, Apaches and other southern Athapascans was on Puget Sound, may it not also be granted that this is some further proof of the Asiatic origin of the same tribes?"

If the conclusions of Judge Wickersham are true, they directly connect the Ohio mound-builders and the Aztecs with the northwestern settlement I have referred to above, and therefore the earliest traces of syphilis in America, which we find in the bones of Ohio and Tennessee mound-builders and of ancient Mexicans, have also an East Asiatic origin.

This becomes still more probable, if we consider the extreme of antiquity of syphilis in Eastern Asia. An autochthonous syphilis in America, which we should have to admit, if we accept Dr. Brinton's assertion that there is no connection between East Asiatics and Americans, commends itself to us as

little as the autochthonous syphilis and smallpox of the Chinese.

The route from Behring Sea seems to me the only satisfactory solution.

SELECTIONS.

Experiments with Intra-Venous Injections of Solutions of Sodium Chlorid in Cholera Asiatica.—In a paper read before the Dorpat Medical Society, Dr. Karl Dehio gives the results of numerous experiments pursued by himself and his colleague, Dr. Graubner, in the treatment of Asiatic cholera. These experiments consisted in the intra-venous injection of warm salt solutions in the later stages of cholera. Dr. Dehio considers the hypodermic method of injecting, as recommended by Samuel and Cantani twenty years ago, of no value whatever, as it is not only painful to the patient, but the solution is not as quickly absorbed as the serious condition of the case would necessitate. Dr. Dehio states that he uses a process similar to that employed by Ziemssen in his well-known operation of blood transfusion. A sharp, hollow needle about three times the size of an ordinary hypodermic needle is introduced through the skin into a large subcutaneous vein, to which is connected the rubber tube of an Esmarch irrigator, which has previously been filled with a warm, sterilized salt solution. A vein is selected in the forearm near the elbow-joint or on the posterior aspect of the leg. The introduction of the needle is usually difficult, owing to the very slight distension of the vein, but this was overcome by compressing it over the seat of the intended puncture, and by a stroking motion of the hand from below, the vein becomes more prominent. By preventing the overlying skin slipping, the vein could be easily pierced. Between the needle and rubber tubing is fastened a glass connection or tube of about 5 cm. in length by which, besides furnishing a convenient handle, the presence of air in the tube could be at once detected, and prevented from entering the needle. The temperature of the injected fluid was kept at from 37 to 39 degrees C., and was easily controlled by a thermometer introduced into the receptacle. As it was necessary to prevent cooling during its passage through the tubing, the fluid in the reservoir was kept some degrees above body temperature. A height of from two to four feet furnished sufficient pressure for the fluid to flow steadily into the vein, and within a half hour as much as one to two liters was introduced.

Antisepsis was thorough, and the needle, apparatus and field of operation were all sterilized before proceeding with the operation. If the needle could not be as quickly introduced as was necessary, a small incision was made in the vein, and after the operation closed with cotton and colloidion dressings.

In this manner, Dr. Dehio, in connection with Dr. Graubner, chief physician of the Dorpat Cholera Hospital, performed thirty intra-venous injections in eighteen cholera cases. These experiments were all made on patients in whom there was pronounced collapse and an almost imperceptible radial pulse. All were deeply cyanotic and ice-cold. As much as 2 liters of the saline fluid was injected at one time, but usually 1½ liters was found to be sufficient. The operation was discontinued as soon as the radial pulse could be distinctly felt and counted, and was repeated whenever the cyanosis and pulse indicated approaching collapse.

In nearly all instances the patient seemed to revive somewhat, the pulse became stronger and the heart sounds clearer, and the patient again complained of the muscular cramps from which he had ceased to react. The effect, how-