

SEVENTEENTH QUARTERLY REPORT ON THE  
EXCAVATION OF GEZER.

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*Fourth of the Second Series.*

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11 November, 1907—10 February, 1908.

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THE work of the past quarter has been much interrupted by violent storms. It has consisted in the finishing of the examination of the great tunnel, the discovery and partial clearance of which was reported in the last *Quarterly Statement*; and in the completion of the western trench northward, so that it cuts across the whole of the area of the ancient city (see the plan prefixed to the last report). Nothing of special importance or interest has come to light.

As the postscript appended to the previous report informed the Society, the tunnel, that appeared at first to be an ancient entrance to the city, was found to end in a cave in which rose a great spring of water. The first feeling was one of natural disappointment at so prosaic a conclusion, and under its influence the postscript in question was penned. But on reviewing the matter more calmly, one cannot help wondering whether such a result is not perhaps as satisfactory as any other.

The tunnel was found to descend by eighty steps; for about two-thirds of its course it maintained with tolerable uniformity the cross-dimensions of its entrance—that is to say 23 feet high and 12 feet 10 inches across. After the second third of its course it entered a much harder stratum of rock, the quarrying of which must have been a matter of considerable difficulty: the dimensions from this point onward contract considerably. The edge of the lowest step was an inch or two above the level of the water, which was 94 feet 6 inches below the surface of the rock or about 130 feet below the present surface of the ground.

The spring was completely choked with soft mud of an unknown depth—a long crowbar failed to sound the bottom. To clear it would have been a difficult, expensive and (from the archaeological point of view) profitless task.

The slope of the roof is maintained for some distance beyond the end of the staircase—indeed, until it comes so close to the surface of the watery mud at the bottom that it is necessary to stoop considerably to pass underneath. It then rises again, and the excavation terminates in a long narrow chamber, measuring at the water-level 99 feet by 27 feet at the widest point.

This chamber was full of earth, and I commenced to clear it out—a long and monotonous task, as of course every basket-load had to be carried up by chains of boys and girls to the entrance of the staircase. Six cranes were erected at the top, and kept hard at work all day. The earth being wet, the baskets were of course much heavier than a basketful of soil usually is; and incidentally it must be mentioned that the wet earth rotted out the baskets in a day or two, so that new ones had to be constantly provided. This indeed became a serious item of expenditure. And as in addition to the hard work involved, there were no antiquities, and consequently no *bakhshish*, my readers will not wonder that I had some little apprehension lest there should be a strike of the labourers.

There were further causes for rather more serious apprehensions. In a rain-storm that took place in the early part of the winter the side of the trench, at the bottom of which the tunnel opened, developed a very ugly crack; while the roof of the cavern at the bottom was so badly flawed, and so rotten, that I was in constant dread of an unlucky concussion bringing down large blocks from it and causing serious mischief to the labourers employed underneath. It soon became clear that to remove all the earth from the cave would be an endless task, and would consume valuable time to no purpose; so I decided merely to cut trenches by the sides, and one through the middle, to determine (*a*) whether the cave was natural or artificial; (*b*) whether it was a single chamber or part of a more complex system; and (*c*) whether there was any entrance or exit other than the great staircase.

(*a*) The first question was not so easily settled as might be supposed, because it was extremely difficult to find any part of the cave in which the original sides remained *in situ*. All around, blocks had become detached and fallen forward, the result no doubt of

earthquakes; some of the fractures looked so fresh that they might well have been caused by the earthquake we had here about four years ago. But all the indications were against its being artificial; and I left the cave satisfied that it was a large natural hollow in the rock, which here is fissured by very wide strata making an angle of about  $9^\circ$  with the horizontal.

(*b, c*) The other two questions can be answered together with a simple negative. No doorway or opening whatever was found giving access to any other chamber or passage.

Watery mud was found at every place inside the chamber where the trenches through the earth were made of sufficient depth, so that the spring rises through the whole cave.

The presence of this tunnel is from many points of view not only an interesting but a most remarkable phenomenon. Many questions seem to call for an answer in connection with it; a few of them may here be indicated.

The first question naturally is, why was this method of approach to the water adopted, rather than the sinking of a vertical well shaft by which the water could be drawn with ropes? This question is not easy to answer, though perhaps it may be found to be involved with the solution of the second, which will be considered in a moment. The labour of making the tunnel was evidently much greater than that of cutting a vertical shaft would have been: the passage is about two-thirds as long again as such a shaft, and instead of the rough work that would have been sufficient in a shaft (down which no one could descend), it had to be made carefully with steps. Moreover, when finished, the labour of carrying water from the bottom to the top was evidently much more serious than would have been involved in drawing it up with buckets and ropes. Nor could the tunnel serve a greater number of water-drawers at any one time than could a well-shaft: indeed, even from that point of view, it was probably less practical. If the ancient Canaanite women were anything like their excitable modern descendants, who live in a perpetual atmosphere of nerve-tearing quarrels, the narrow bottom step above the deep spring must truly have been rather too small on many occasions! Under the happiest and quietest circumstances, and with the least mutual interference, not more than six persons at the outside could comfortably stand upon it and fill water pitchers. And when the journey to the surface is remembered, and we picture the women toiling upwards, getting in one another's

way, no doubt often slipping and falling—especially after a lapse of time, when some of the steps had become so broken by foot-wear that only a small section of them was not positively dangerous—it is easy to imagine that the tunnel must have given cause for a considerable amount of social unpleasantness, such as a vertical shaft, all round of which the water-drawers could stand, would have avoided. One reason can be suggested why, when the spring was discovered, a passage-way was made to it rather than a shaft—namely, that it was required to make the water more easily accessible from a palace, or some similar important building. We have yet to excavate to the east of the tunnel, so cannot yet say finally whether or not such a building existed in the neighbourhood of its entrance. The only large residential building found so far, on the Western Hill, would be more conveniently situated to a vertical shaft breaking through the roof of the cave.

But this leads to the second question: How did the Gezerites know that there was such a cave? The only possible indication would be an overflow trickle of water coming out somewhere between two strata in the rock. To certify that there never has been such an outflow would be impossible: but there is assuredly no such outflow now. Another essential would be a tunnel, at least large enough for a boy to creep through, whereby the source of the water could be exactly fixed. Not a trace of such a tunnel is to be found, either from within the cave or from any point in the hill slope outside.

In short, the probability is that there was no external indication of the existence of this source of water, which could enable its position to be fixed with accuracy. It is surely unnecessary to remind the reader that the overflow water from such a spring may escape to the open air miles away from the point from which it starts. If this be so, we are reduced to the conclusion—which seems to me the most probable—that the discovery of the spring was a matter of pure chance.

This brings us back the original question in a rather different form. Did the engineers commence their work with the purpose of finding water, or had they some other end in view, which the accidental discovery of the spring frustrated? The latter is a chance that can easily be paralleled; I believe, for example, that the work of the Simplon Tunnel was very seriously hindered by the discovery of a powerful spring in the heart of the rock. And my

own preference, after weighing the arguments and indications, inclines to this theory. I cannot but think that well-sinkers searching for water would have followed the more orthodox course of making a vertical shaft, for every reason of convenience and economy. But if the intention had been to make a passage going somewhere, we are provided with an explanation of the form which the work took, and to some extent of its grandiose dimensions. If (to adopt the most probable hypothesis) the intention had been to make an exit from the city, which could be used in time of siege, it would evidently be desirable to have as much light as possible to illuminate the stairway down which a panic-stricken multitude might some day rush headlong; on this account the entrance, and the first two-thirds of the passage, were made as spacious as possible.

When the spring was found it would be recognized that here was a resource in time of siege almost as useful as the "emergency exit" originally planned; and the initial scheme was abandoned—unless indeed another attempt was made to carry it out in some part of the mound not yet excavated.

We now, I think, are in a position to give a plausible explanation of the condition of the upper part of the staircase. It will be remembered that the steps had here been completely destroyed—indeed, I was obliged to have steps built to enable the labourers employed in carrying baskets to go up and down. While I was still under the impression that I probably had to deal with a tunnel leading from the city, I suggested (in the previous report) that these steps had been broken by the defenders in order to trap a body of the enemy who might have discovered the lower exit. When the tunnel terminated in a spring, of course this theory had to be abandoned. But another, of a similar nature, takes its place. An invader—say one of the earlier Pharaohs who have recorded their capture of Gezer, or perhaps even someone of whom we have no literary evidence—successful after a long siege, might well be supposed, in his exasperation, to destroy access to the spring which had enabled the defenders to hold out so obstinately. The steps below having already become worn and dangerous, the citizens of Gezer might not think it worth while repairing the damage; so from then onwards the tunnel would be abandoned and gradually become filled up.

Nothing was found to upset the chronological theories I have

already stated—that the tunnel was first excavated not later than 2000 B.C., and abandoned somewhere between 1400 and 1200 B.C.

There remains a question yet more difficult than either of the preceding. Under what influences and circumstances was this great work undertaken? We would not be surprised to find an excavation of this magnitude in the metropolis of a settled civilization, but in a country town in Palestine it is astonishing. The contemporary houses and objects do not indicate a degree of culture compatible with the conception and execution of so great a work: and if the disordered and disorganized state of society mirrored in the Tell el-Amarna tablets be a fair indication of the condition of the country five or six hundred years earlier—as there is every reason to suppose—it is difficult to imagine circumstances sufficiently peaceful to be favourable for the carrying out of such an undertaking. On the other hand, had it been excavated under the influence of one of the Egyptian or Babylonian kings, we might have expected that he would have yielded to that irresistible temptation of writing his names, which constantly beset those self-centered persons. I need hardly say that the most careful search was made for inscriptions, but not a trace of any was to be detected.

One possible argument for a Babylonian influence lies in the fact, important in any case, that at the bottom of the staircase were found two small shapeless lumps of iron. Père Vincent has reminded me that the use of iron in Babylon goes back to the time of Gudea. This is, in any case, the oldest evidence of the use of iron yet found in Palestine; but that the fragments had to do with the formation of the cave is in the last degree unlikely: they no doubt fell in after its abandonment, with other waste objects. I have already mentioned that the sides of the staircase, wherever the condition of the rock makes the preservation of tool marks possible, show evidence of the use of *flint* chisels by the quarrymen.

The niches that are cut here and there in the walls, mentioned in the last report, may possibly be receptacles for *ex voto* offerings to the spirit of the spring.

The total horizontal length of the excavation, from the extreme west end of the staircase to the extreme east end of the cave, is 219 feet. Plans and sections have been prepared and deposited in the Office of the Fund: they are necessarily too large for the page of the *Quarterly Statement*, but will be published in the final Memoir.

In the meanwhile I present two photographs of the staircase, the one looking down from above, the other looking up from below.



FIG. 1.—The Great Water Passage, facing downwards.

They are the most successful of several attempts that have been made to secure a satisfactory picture of this staircase, which is an

extremely difficult subject for the camera. Flash-light is necessary in any case, and the exposure has to be made late in the evening,



FIG. 2.—The Great Water Passage, facing upwards.

as otherwise the middle of the picture will be spoilt by halation. On the other hand, the length of the staircase is so great that the

light of the magnesium will not carry to the end, and it requires to be helped by a certain amount of daylight; otherwise the upper part will be hopelessly obscure.

The photograph that accompanied the previous report was not intended by me for publication: it was forwarded to illustrate a letter on the subject written to the Committee shortly after the first discovery of the excavation. It should have been accompanied by a note explaining that the appearance of a double staircase is misleading: the upper flight of steps, to the left of the picture, being simply a temporary convenience designed to prevent the boys of different gangs from getting in each others' way. These are formed in the earth with which the tunnel was completely filled, and of course were afterwards removed. The accompanying photograph (Fig. 2) shows the final appearance of the staircase. The perspective of the picture tends to foreshorten the flight of stairs: this will be understood better when I mention that the man who is standing on one of the steps is rather less than half-way up to the top. The other photograph (Fig. 1), looking downward, well shows the loftiness of the tunnel, the texture of the rock, and, especially, the arch mentioned in the previous report, one-third of the length down from the entrance.

The interior of the cave, at the bottom, I tried several times to photograph, but failed. The air inside the chamber is warm and very damp, and a thick deposit of moisture condenses very rapidly on the lenses of the camera, making it impossible for a satisfactory image to become imprinted on the plate. I should have tried to improve upon the photographs of the staircase, which do not altogether satisfy me, but I shall now have to rest contented with what I have. On the 20th of January last a great storm of wind and heavy rain passed over Southern Palestine, and the cracked side of the trench, above referred to, collapsed, precipitating many tons of earth down the tunnel, and completely covering the steps to a depth of several feet. To clear this out again would demand far more time and money than I have at my disposal.

There remains one point in connexion with the tunnel, which is of extreme interest. Although this excavation was as complete a surprise to the fellahin as it was to me, and although the only idea they had about it was, "Perhaps people made it long ago,"<sup>1</sup> yet it

<sup>1</sup> A literal translation of the pronouncement of the most intelligent of all my workmen!

may be that a dim recollection of it remained in what may be called the sub-conscious folk-memory: a psychological phenomenon probably as real in the community as in the individual. The recollection I refer to has taken the form of the strange legends of Noah's flood, which Prof. Clermont-Ganneau long ago recovered from the inhabitants of Abû Shûsheh. These legends I was at one time inclined to connect with 'Ain Yerdeh, at the foot of the mound; but after the tunnel was discovered I began to wonder vaguely whether this water-passage may not have been the source of the legends in question.

The same idea occurred independently and in a yet more definite form to my friend Père Vincent, to whom I have never yet applied in vain for illumination when archaeologically perplexed. He kindly permits me to cite the following extracts from a letter written to me, dated 18th December, 1907. The original is in French, but I give it here in English:—

Your discovery has recalled to my memory the curious cycle of legends relative to underground water, and to the Flood, in the region of Gezer; and I happen to remember some remarkable details. In the spring of 1900, if I recollect aright, we were one day examining the great cistern (called "of St. Helena") at Ramleh. A fellow of the neighbourhood, when questioned as to the source of the water, the origin of the cistern, etc., related to us a very long story in which the King of the "Fenish" was involved with Noah, with underground passages, and with a spring at Gezer. Formerly the cistern was always full; but now the water has lost its way between Gezer and Ramleh, and even the "tannûr" or baking-oven at Gezer, where the deluge had its rise, is closed up. . . . Obviously these stories, as histories, are absurd; but can it be that they have some very remote connexion with the underground spring and the great tunnel? And once embarked on that route, I end in asking myself by what threads, fine and mysterious, and no doubt tangled, the *tannûr* of the Flood at Abû Shûsheh may be bound to the very ancient equivalents of the *şinnôr* which you have just found. The Canaanite *şinnôr* of Jerusalem<sup>1</sup> is not so easy to explain etymologically in Hebrew, and you remember what trouble it has cost the old translators and the exegetes of all time.

It would almost be an impertinence for me to add a comment to this most elegant identification; but I cannot refrain from strongly emphasizing one of its most far-reaching consequences. I have always thought that writers on folklore assume quite too readily as a commonplace that the recollection of *historical* (as opposed to

<sup>1</sup> [The "watercourse" of 2 Sam. v, 8.—R.A.S.M.]

*legendary*) events is transitory, and makes no impression on more than two or three generations. Thus, to take a concrete instance, we are asked to believe that if such a cataclysm as the deluge, local or universal, were to occur, it would be forgotten in a century or two; whereas legends about thunder-birds, creating beavers, and the rest of the monstrous zoology of the imagination, are preserved unchanged, till wiped out by the various influences of civilization. But if the identification suggested by Père Vincent be accepted—and to me it seems most attractive—we have a living recollection not merely of the fact that once there was a hole at Gezer in which water rose, but even of the very name by which the hole was called. The meaning of the *name* has been forgotten, and an Arabic word roughly similar in sound substituted; and the meaning of the *fact* has been forgotten, and it has been linked (as was inevitable) to the Flood legend.<sup>1</sup> But in spite of these transformations, the fossils of *historic fact* still remain, embedded in the uncomprehending minds of the fellahin.

Soon after I had written the above paragraph, Yusif came to me to report a conversation he had had with an aged man of Abú Shûsheh, who happened to come on to the works. There is an old watercourse running west of the mound in the direction of Ramleh, called *Kanat Bint el-Kâfir*, "the conduit of the infidel's daughter." I had directed Yusif's attention to it, as perhaps bearing on the local Flood legends, which in some mysterious way seem to link Gezer and Ramleh together. Yusif asked the old man "Who was the infidel's daughter, who gave her name to the conduit?" The man said: "I do not know, unless it be *Fir'aur* [Pharaoh]: he was an infidel, and our lord Solomon took his daughter. And a gift came to her from the sea, and it came as far as *Jâzer*: but where *Jâzer* may be we know not." "Perhaps," suggested Yusif, "it was the place where she was living." "No!" said the old man, very decidedly, "she was living at *Latrûn*; but the gift came to *Jâzer*, and we know not where *Jâzer* is." A more striking illustration of the preservation of historic tradition could not be found. The old man's ignorance of *Jâzer*, which is Gezer, and his mistake about *Latrûn*, shows that he has not picked up the story from someone who has overheard me, or any of the scholars who have from time to time visited Gezer in recent years, speak about its historical

<sup>1</sup> See Clermont-Ganneau, *Arch. Researches*, Vol. II, pp. 87, 237.

associations. But wherever it may have come from, the history of 1 Kings ix, 16, has certainly reached this old man. Asked whence he had derived his information, he said he had heard of it from people in a neighbouring village (on the other side of the conduit) called Ni'aneh.

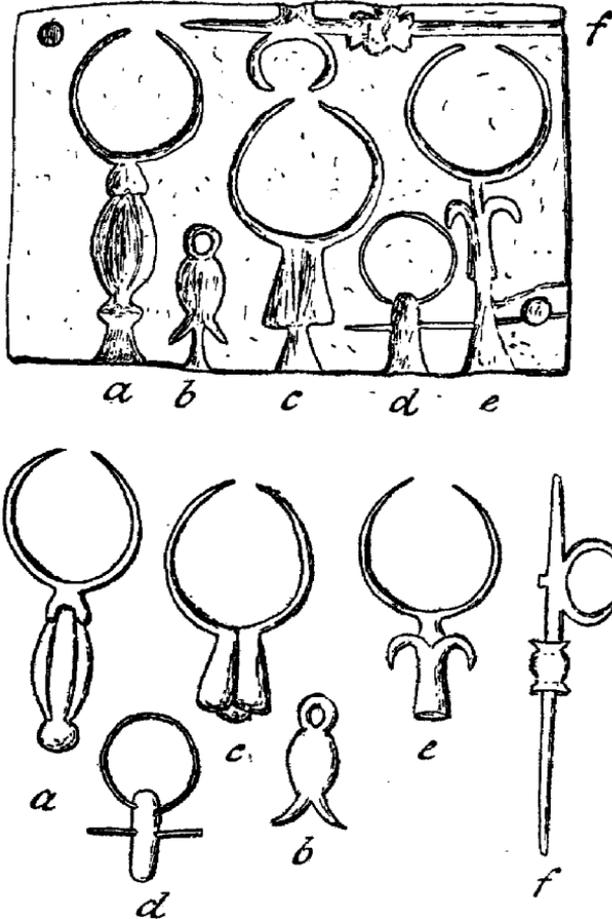


FIG. 3.—Mould for casting Gold Ornaments, with impressions.

One difficulty with regard to the Flood story cannot be passed over—the wide-spread nature of the belief in its outburst *from an oven*. The oven has been placed at Kûfah; in India; in Mesopotamia; and in Damascus: and I believe that in Persian pre-Islamic

tradition there is a similar story. Still, why should the comparatively insignificant town of *Gezer* be named as one of the places where the oven was said to be? And whence did the story reach the Persians, and the Koran [sûra XI], whereby it has been spread all over the Muslim world?

#### MISCELLANEOUS OBJECTS.

As in the last quarter, I have no buildings of special interest to describe, and the objects found have been for the greater part monotonous duplicates of others, previously found and already sufficiently reported upon. I may describe together under one heading the few antiquities found that were of special interest.

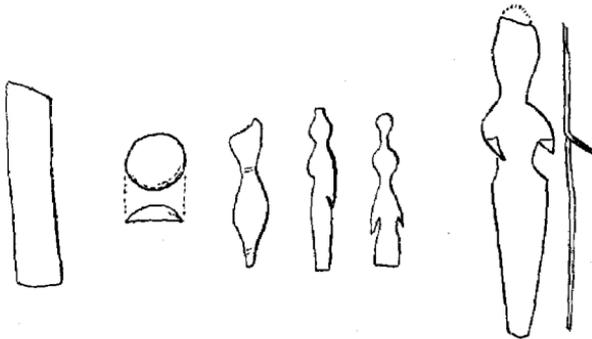


FIG. 4.—Bronze and Silver Figures, &c.

1. In Fig. 3 is represented one side of a mould, made of a hard basaltic stone, polished on the surface, which was found in late third Semitic débris—that is to say, a little before 1000 B.C. It was evidently intended for casting gold or bronze ornaments, probably the former. I have drawn out the ornaments that would result from its use, copied from a wax impression of the object. These are of very curious types: they seem to be ear pendants (*a, c, e*), beads of elaborate form (*b, d*) and an odd little hair-pin, shaped like a battle-axe. The find is interesting as it presents examples of the local taste in jewellery. The stone measures  $2\frac{7}{8}$  inches by  $1\frac{3}{8}$  inches by  $\frac{1}{2}$  inch. There are two mortices, in opposite corners, for receiving tenons projecting from the other side of the mould, which was not forthcoming.

2. Yet more interesting is the series of objects represented in Fig. 4. They were found in a large jar, dating from about 1400 B.C., that was lying in the corner of a room of that period. The jar was the same kind as those which contain sacrificed infants in the High Place and in the foundations of buildings.

The two largest objects of the series is cut from a thin disc of bronze, the others from thin laminae of silver. The length of the more important bronze object is  $2\frac{1}{4}$  inches. It evidently represents in outline a human figure. The arms are bent outward from the body, but otherwise the figure is, so to speak, in two dimensions.

Most of the silver objects are broken into fragments and corroded into inseparable lumps of metal; there are about ten representations of human figures, the three most perfect of which are here repre-



FIG. 5.—Fragment of a Greek Inscription.

sented. There were also four minute saucers like that drawn, made of circular laminae bent into a concavo-convex form.

Besides these, there was a thin narrow strip of bronze. The length of the silver figures is  $1\frac{1}{8}$  inch, the diameter of the saucers about  $\frac{1}{8}$  inch.

This curious deposit appears to me to be a *model* of a foundation sacrifice, in which the human victims are represented by the bronze and silver "men," and the food vessels usually deposited with the victims by the little silver saucers. They recall in some degree the remarkable leaden figures found at Tell Sandahannah (see *Excavations in Palestine*, Plate 85, pp. 154, 155); though their purpose and associations is rather different.

The jar in which this interesting deposit was stored was broken, the neck and mouth being entirely lost. The length of the remaining portion was  $24\frac{3}{8}$  inches. It had a pointed base, and no handles.

3. The fragment of Greek inscription (Fig. 5) was not found in the *tell* itself but was turned up by a ploughman in one of the neighbouring fields. It is in marble, and is evidently part of a

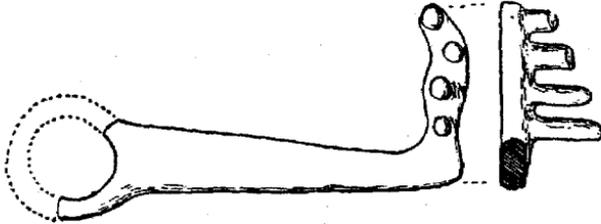


FIG. 6.—Iron Key.

Byzantine tombstone. It probably commemorated one of the community that lived in the ruined settlement known as Khurbet Yerdeh, east of the *tell*. It was found close to this site. The fragment is  $6\frac{1}{4}$  inches long.

4. An iron key, such as is shown in Fig. 6, is not a common object here. The specimen figured was found in the surface stratum. It is evidently designed for a lock similar to the well-known type of wooden lock still used in native houses in Palestine, in which a certain number of pins (in this case four) fall through the frame of the lock into the bolt and secure the latter until the key is inserted and the pins raised. The keys of such locks are

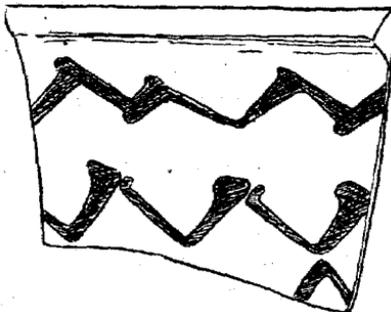


FIG. 7.—Fragment of Painted Ware.

now usually made of wood. The present length of the key is  $3\frac{1}{2}$  inches.

5. There is an interesting point to be noticed with regard to the fragment of painted ware, Fig. 7. It is a piece of the rim of a

bowl, of a light brown ware, ornamented with zigzags in black: the date is about 1200 B.C. On close examination of the zigzags they resolve into a series of V's—this is especially to be noticed in the second line—upright and inverted. Only a small fragment of one of the inverted V's is left. It is evident that the potter painted the V's from right to left; the downstrokes of the upright V's, and the up-stroke of the inverted V, were evidently on the side towards the artist's *right*. Had an European potter been painting this ornamentation the thick and thin lines would have been reversed. It follows, *either* that the potter was left-handed, which is possible, *or*



FIG. 8.—Fragment of Egyptian Vase.

that he was influenced in his work by the habit of writing from right to left, as in the Egyptian and Phoenician scripts, and not from left to right, as in the cuneiform. As the sherd is about two hundred years older than the oldest dated example of the Phoenician script at present known, this observation is worth a passing notice.

6. Lastly, I may mention a sherd of an Egyptian cylindrical vase in green enamelled porcelain, bearing in the usual brown lines the name of Ramessu III (Fig. 8). This fragment was found not far from the grotesque figure illustrated in the last report, at the south end of the trench containing the great tunnel. The height of the fragment is  $2\frac{1}{4}$  inches.