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717TH ORDINARY GENERAL MEETING,

HELD IN COMMITTEE ROOM B, THE CENTRAL HALL, WESTMINSTER, S.W.1, ON MONDAY, JANUARY 21st, 1929, AT 4.30 P.M.

Dr. James W. Thirtle in the Chair.

The Minutes of the previous Meeting were read, confirmed, and signed, and the Hon. Secretary announced the following elections:—As a Member: Norman S. Denham, Esq.; and as Associates: R. Arthur Button, Esq., and the Rev. W. M. H. Milner, M.A.

The CHAIRMAN then introduced the Rev. Charles W. Cooper, F.G.S., to read his paper on "Some of the Precious Stones of the Bible, with special reference to the High Priest's Breastplate and the Jasper of Rev. iv, 3."

SOME OF THE PRECIOUS STONES OF THE BIBLE, WITH SPECIAL REFERENCE TO THE HIGH PRIEST'S BREASTPLATE AND THE JASPER OF REV. IV, 3.

By The Rev. Charles W. Cooper, F.G.S.

(Specimens of all stones mentioned in this paper were on view.)

To many of us the Bible is so manifestly an inspired account of the unfolding plans of God, that we have come, not only to reverence it and value it for its revealed truths, but to be interested in the details of much of the subject-matter with which it deals. Part of that subject-matter, which interests us to-day, is that which refers to stones called in the Bible "precious," but which in our day are no longer so regarded.

To take but one or two instances to illustrate this interest in the precious stones of the Bible, let me quote as follows from Exod. xxviii:—

Verse 9.—"Thou shalt take two Onyx stones, and grave on them the names of the children of Israel."

Verse 12.—"... two stones ... for stones of memorial."

Verses 15 sqq.—"Thou shalt make the Breastplate . . . foursquare . . . set in it . . . four rows of stones . . . the stones shall be with the names of the children of Israel . . ."

Verse 29.—" Aaron shall bear the names of the children of Israel in the Breastplate of Judgment upon his heart . . . for a memorial before the Lord continually."

Verse 30.—"Thou shalt put in the Breastplate of Judgment the Urim and the Thummim; and they shall be upon Aaron's heart, when he goeth in before the Lord."

Whether the sacred Ark of the Covenant with the Holy Breastplate, its precious stones, and the Urim and the Thummim will ever be rediscovered is, of course, a mere matter of speculation. But it is none the less, to some of us, a pious hope that they may yet be found, and that they may be like the Babylonian Tablets—one more, if not a crowning, proof of the veracity of the Bible records.

In the passages quoted we have set before us precious stones—

As divinely chosen. With a divine purpose. Of a divine significance.

It is therefore natural that we should be interested in seeking to ascertain, as far as possible, the nature and characteristics of those stones, or, in other words, which of our modern precious stones are referred to.

The facts as given concerning their use and significance help us to determine what their nature was: e.g. that their use and message were of age-long significance leads us to suppose they would be stones of an enduring nature, and this leads us to rule out all soft stones, such as malachite, which the Encyclopædia Biblica gives for the Onyx stone; likewise, the fact that these stones were engraved with the names of the tribes of Israel, leads us to rule out of court very hard stones such as the Diamond, said by the A.V. to be the 6th stone of the Breast-

plate. For the same reason we must, I think, reject the (oriental) Topaz, the Ruby, and the Sapphires which are corundums, and only next in hardness to the Diamond.

It will be seen by those who understand the hardness of stones that the stones enumerated by me have a more or less uniform hardness of 7 (Moh's scale), *i.e.* of the hardness of quartz, which from time immemorial the ancients have shown themselves capable of cutting and engraving.

It may not be amiss to mention some of the difficulties which surround an enquiry into the nature of the precious stones of the Bible. The etymology of the Hebrew words used for them renders but little help.

The Hebrew word for the first stone on the Breastplate is Odem, the root-meaning of which is "red." Our difficulty is to decide the kind of red stone referred to. The root-meaning of the second name is "engraved," which again gives but little help, since they were all engraved stones. Some of the names given to these stones are foreign words, such as the 7th. The Hebrew word is Tarshish, and probably refers to a stone which came from Tarsus, the place of St. Paul's birth, thus giving but little help.

Again, while the rendering of the names of these stones as given by the LXX is helpful to an enquiry, we realize that such help is very limited, on account of the fact that it often translates the same Hebrew words by different Greek words, and, vice versa, gives the same Greek word for different Hebrew words.

So again, the help received from the *History* of Josephus, which mentions these stones, is limited, for in places he is strangely inconsistent and contradictory.

So likewise other works of authority, while they are helpful to our enquiries to a degree, are only partially helpful—e.g. Pliny's *Historia Naturalis*, published A.D. 77, describes under the same name many stones which are now known to differ entirely from one another.

But not the least difficulty is the fact that very few men seem to have been interested enough to have given an independent study to such an enquiry.

The most helpful authorities, however, are the treatise of Theophrastus "Concerning Stones," 370–287 B.C.; the *Historia Naturalis* of Pliny; and, above all, the actual statements of Scripture in different passages where the precious stones are mentioned and described.

There is, moreover, one other point of importance in the matter, and that is their size. Professor Myres concludes that the stones on the Breastplate were probably as large as $1\frac{1}{2}$ inches or 2 inches in diameter, which again rules out the interpretation given by certain men of stones which have never been known to reach such a size.

As it is manifestly impossible to discuss the nature of all the precious stones of the Bible in the time allotted, I propose only to deal at any length with the 1st, 2nd, 7th and 11th stones of the Breastplate, and the 12th, a Jasper as mentioned by St. John in Rev. iv and xxi.

The *Ist* stone in the Breastplate, as given in the A.V. and R.V. (Exod. xxviii and xxxix), is called a Sardius: with this the LXX, Vulgate, Syriac, and Arabic versions agree. The Hebrew word is *Odem* (red).

The question is, to what stone does *Odem* refer? In the margins of the A.V. and R.V. it is rendered "Ruby"; but while there can be no doubt the ancients found great rubies in the gravels of the rivers of India and Ceylon, and also understood how to polish the natural surfaces, yet there is no evidence that there existed in those days any knowledge how to cut or engrave a Ruby, which is the next hardest stone to a Diamond. "Ruby" is therefore ruled out.

In passing, it may be stated that the word "Rubies" mentioned in the Song of Solomon refers to red coral.

Josephus renders this word *Odem* as "Sardonyx." This we conclude is certainly wrong. Possibly it is an error of some copyist; if not, it is difficult to understand why he calls the *Odem* a Sardonyx, for the distinction between this and the Sardius was well known by both Greeks and Romans of his day; both Sardius and Sardonyx are mentioned in Rev. xxi.

In Whiston's Translation of Josephus the two shoulder-stones (Hebrew Shoham: A.V. Onyx) are also wrongly rendered "Sardonyx."

Professors Myres, Flinders Petrie, and Kunz render this Odem stone as "red Jasper," because a brilliant red Jasper is commonly found in Egypt and Arabia. But Pliny, who quotes Theophrastus, definitely describes a Sardius as transparent, or, as we should say, translucent; whereas all true Jasper is opaque.

My own opinion is that the stone referred to is the modern red carnelian, for the following reasons:—It is a blood-red stone, chosen as symbolical of the redemption by blood of the first-born among Israel. This rules out the modern "sard" stone, otherwise Sardius stone, which is a dark red-brown stone. This stone was no doubt included in Pliny's variety of Sardius, but it is not blood-red.

The carnelian (often called cornelian—Latin *cornu*—from the horny appearance of its crypto-crystalline nature) is also a chalcedony, a stone which, as Mr. C. W. King points out, comprises by far the greatest number of very ancient seals.

The <code>?nd</code> stone of the Breastplate is, without much doubt, the modern Peridot, which is a green stone. The Hebrew word is <code>Pitdah</code> (root meaning "engraved"). The LXX rendering is "Topazion," signifying a stone of Topazios—an island in the Red Sea. It is rendered by the A.V. and R.V. as "Topaz." But it is clear that <code>Pitdah</code> is not the modern yellow Topaz. It is true the LXX, the Vulgate, and Josephus render this word as "Topazion," but Dr. Wm. Smith's <code>Dictionary</code> of the <code>Bible</code>, quoting Braun, states: the Topazios of the ancient Greeks and Romans was the modern Chrysolite (golden stone), and <code>vice versa</code> our Topaz the Chrysolite of the ancients.

For the reason that the Chrysolite is a golden stone, it appears that Professor Flinders Petrie in Hastings' Dictionary of the Bible and Professor Myres in the Encyclopædia Biblica, accept the interpretation of the 2nd stone as yellow. But Pliny definitely states that the Topazios was a green stone, "softer than a file, brought from the Red Sea, and still held in high esteem for its green tints." This is further supported by the fact that the three Targums render Pitdah by the Aramaic word "Yarkan," from a root meaning "green." We have every confidence in saying the 2nd stone is our modern Peridot, which is green in colour, is a soft stone, and comes almost exclusively from the Red Sea, as Job xxviii, 19, infers "The Topaz of Ethiopia."

The 3rd stone, called by the A.V. and R.V. a "carbuncle," i.e. red garnet, cut cabochon, may, in short, be said to be the modern Emerald. The Hebrew word means "flashing." The LXX, the Vulgate, and Josephus all render the word as "smaragdos," the modern German name for Emerald. There is little doubt, I think, this is correct. Professor Myres, Sir Flinders Petrie, and Dr. Driver, however, favour the view of "rock-crystal." Dr. Driver interprets the Hebrew word "flashing" as referring to what is known as rainbow-quartz

(rock-crystal). But since such "flashing" of the spectrum is only caused by an internal fracture of the stone, and is not a characteristic, it would be difficult to think that this stone took its name from an imperfection.

The 4th stone, called in the A.V. and R.V. an Emerald, is probably a carbuncle.

The 5th stone, called in the A.V. and R.V. a Sapphire, is without doubt the modern Lapis Lazuli, correctly described by Job xxviii, 6, and Theophrastus as a stone "having the dust of gold," a reference to the iron pyrites, a characteristic of this lovely blue gem.

The 6th stone is rendered in the A.V. and R.V. as a Diamond. Such a stone is ruled out chiefly on account of its great hardness, for, not till the thirteenth century A.D. was it discovered how to cut a Diamond. The LXX inserts here the Jasper, and Professors Myres and Flinders Petrie follow this order of the stones, because they regard the LXX as more trustworthy than the Hebrew text. My own idea of Inspiration would not allow me to accept this view: for this and other reasons, I am of opinion that the 6th stone should read a "rock-crystal," a stone once commonly confused with the Diamond.

The discussion concerning the 7th stone is full of interest. The Hebrew name is Leshem, a foreign word Hebraicised by Moses. The LXX translated it by the word "Ligurion," hence the A.V. and R.V. render it "Ligure," a name since dropped out of English nomenclature. Dana, the great mineralogist, quotes a sixteenth-century authority as the first to mention and describe a Ligure, and concludes that the Ligure is the modern Sphene. But with all due deference to so great an authority, we must rule this out. It is a very rare stone to this day; a large specimen has never been known, and until late years was never found within the borders of the old world. The great interest of this stone is as follows:—

Theophrastus does not mention the Ligurion, but he describes a Lyncurion, like amber.* Pliny ridicules the statements of Theophrastus about this stone, and says, unless this stone of Theophrastus was amber, it nowhere existed.

^{*} From which the R.V. in the margin, Kunz, and others render this word as "amber." But it is not likely that soft fossil resin, which is not a stone at all, would be included among stones of an eternal, enduring nature.

On the other hand, Pliny describes the Ligurion as a stone of the colour of a carbuncle. About A.D. 450, however, Bishop Isodorus tells us the Ligurion of the Greeks was synonymous with the Lyncurion of Theophrastus. Theophrastus described his stone as a stone used for engraving seals, having an attractive power like amber. In Chapter 51 of his book he adds: it was pellucid and of fire-colour; that the polishing of these stones was a work of great trouble.

These descriptions are an exact definition of the modern Jacinth, and fully agree with Pliny's description of his Ligurion: there is very little doubt that the Old Testament Ligure is the modern orange-red Jacinth.

The Encyclopædia Biblica falls into the error of saying it was probably a clear yellow stone like cairngorm or a chrysoprase. Clearly the writer was unaware that Theophrastus was speaking about red amber. But why this writer suggests chrysoprase as an alternative, I do not know, for that is a green chalcedony.

The 8th and 9th stones, Agate and Amethyst, are without much doubt correctly translated.

The 10th, called a Beryl, I judge to be "a citrine or golden quartz."

The 11th stone is full of interest. It is, without doubt, correctly described by the A.V. and R.V. as "Onyx." The curious part is, that so many commentators have missed their way, and have given what is clearly a wrong interpretation to this stone. The Hebrew word is Shoham, and the question is, what is a Shoham?

Professors Myres and Kunz, and the Jewish Encyclopædia think Malachite may be the stone referred to: Professor Flinders Petrie thinks Shoham may refer to green Jasper. This is due to the fact that these scholars regard the LXX as more worthy of credence than the Hebrew. It causes them to search for the name of a green stone the colour of a Beryllion, the name given by the LXX.

Professor Myres admits that the 11th stone is the Hebrew Shoham. He quotes the Arabic word "Musahham," meaning "a striped garment," and from this concludes that Shoham is a banded stone like Onyx; but through putting his confidence in the LXX, seeks for a banded Beryllion, and decides upon a banded green malachite.

To my mind the correctness of the rendering of Shoham as the modern Onyx is clearly established, for these reasons:—

- (i) In Gen. ii, 12, we are told the land of Havilah was famed for its *Shohams*: the river of Pison, "that is it which compasseth the whole land of Havilah, where there is gold . . . there is bdellium and the *Onyx* (*Shoham*) stone." Pliny gives a similar testimony, and Niebuhr, the traveller, relates how he "saw quantities of Onyxes in the same country," a fact which could not be said of Beryllions as rendered by the LXX.
- (ii) In 1 Chron. xxix, 2, we read that David said: "I have prepared for the house of my God, gold, silver, brass, iron, wood, Onyx stones (Shohams) in abundance." Clearly these were materials for building, and not for beautifying or furnishing the Temple after it was built. The abundance of Shohams are on a par with the abundance of iron and wood. Nothing is more unlikely that David prepared an abundance of Beryls—they were far too rare, far too costly; but an abundant supply of Onyxes was easy, and they were no doubt used—as Onyxes have been used from time immemorial—as ornamental bosses to the capitals of stone columns. The Onyx is a striped stone, and is therefore correctly described by the Arabic word "Musahham."

These reasons are, I judge, sufficient for us to say with some confidence that the 11th stone and the two shoulder-stones worn by the High Priest were the modern Onyx stones.

The 12th and last stone which I would submit to your consideration to-day is the Bible "Jasper" stone, the true interpretation of which, I may be pardoned if I say, it has been my privilege to discover. I have found that the A.V. and R.V. of the Book of the Revelation have each misrepresented the true significance of the two stones mentioned therein, known as the Jasper and Crystal. They have been mistranslated.

The result of the mistranslations is, that wellnigh all—if not all—commentators have given a wrong significance to those stones, causing the writers to state that when St. John spoke of a "Jasper stone most precious" he could not have referred to the Jasper of modern times, which is opaque, but must have referred to a Diamond or other clear stone like a crystal; or.

in other words, St. John was mistaken in his name of that stone. The explanation put in very few words—I hope not too few—is that the original Greek words explaining the crystal should read, not "clear as crystal," but "glittering or shining like a crystal" (see Rev. xxi, 11; xxi, 18 (clear glass); xxii, 1). The error has arisen through the writers assuming that the only characteristic of the crystal is that it is "clear," not realizing that crystal glitters and shines, which was the characteristic to which the Apostle no doubt referred.

The phrase "a stone most precious" (v. 11) seems, without doubt, to refer to the Jasper when polished: unpolished Jasper has no beauty or glitter. Jasper was one of the few stones which the ancients knew how to polish, and it takes a high lustre; unpolished, it never was a precious stone. It was its glittering or shining (polished) condition to which the Apostle referred when describing it as shining and reflecting "the light of the Holy Jerusalem, having the Glory of God" (v. 11).

The Very Rev. Dean Alford, in commenting on Rev. xxi, 19, curiously says of the phrase "pure gold like unto clear glass": "St. John was not thinking of our gold, but of a glorified gold, thus making foolish what is perfectly true and simple (v. 12): The City was pure gold (glittering in the light) like unto (i.e. glittering like) clear glass." So, too, chap. xxii, 1, refers to the glittering appearance of the ripples of the River, flowing through the Holy City, lighted up with the Glory of God, i.e. glittering as a crystal."

Hence, once again the Bible is right and scientifically true, and commentators who correct its statements are wrong.

Now the significance of this wrong interpretation is this: It has led commentators to give a false interpretation to the words of Rev. iv, 3, "He that sat was to look upon like a Jasper and a Sardine stone." Bishop Ellicott's Commentary says of this verse: "The hue of the Jasper is the difficulty. The Jasper of the 12th stone of the High Priest's Breastplate (Exod. xxviii, 30) and the 1st of the 12 foundation stones (Rev. xxi, 19) is described by the best authorities as a dark opaque green. But this would be an ill combination with the red Sardine and green Emerald stones in the Vision of this chapter. Is there no further light? Yes, we have a Jasper stone spoken of in chap. xxi, 11, with the descriptive phrase, 'clear as crystal.' Does not this point to a stone somewhat different in appearance from that spoken of simply as Jasper?

Such a clear crystal stone would be the most natural companion to the Sardine, and the combination of the sparkling brightness and fiery red suits the union of brightness and flame which appears elsewhere."

And so the Bishop concludes that for Jasper in Rev. iv, 3; xxi, 11, a Diamond should be understood. He thus infers St. John made a mistake, that when he spoke of a Jasper he

meant a Diamond.

But there is little doubt the Bishop is quite wrong, also the Very Rev. Dean Alford who, in his *Commentary*, gives the same explanation. Moreover, I might add, the Jasper of the Bible is not, as the Bishop says, the modern opaque dark-green variety, but a translucent bright-green stone, most probably plasma, as I show in my book on *The Precious Stones of the Bible*.

To my mind the true explanation of the scene as depicted by St. John (Rev. iv, 3) is that of a Vision of the glory of our Lord sitting on a Throne over which is stretched a rainbow, and the text suggests that our Lord's countenance is radiating with the colours reflected from the rainbow which encircled Him. In v. 3 the Apostle describes that appearance under the simile of a precious (highly polished) Jasper and a Sardine stone.

Now, as may be proved by anyone, one of the remarkable characteristics of a rainbow is, that although it shines out with the seven colours of the spectrum, they are so wonderfully blended that the two colours, green and red, predominate above all the other tints, and it was these two colours which the Apostle saw in the Vision predominating in the "rainbow glory" upon our Lord's Person, and, wishing to describe the beauty of His appearance under the name of precious stones wrote most naturally, "He that sat upon the throne was to look upon like a (green) Jasper stone and a (red) Sardine stone," which is in every respect a true scientific description of both the rainbow and the two stones so described. [The writer sought to demonstrate the above when reading his paper.]

We now come to a consideration of the Ephod, upon which the Breastplate was worn, and our particular design is to reach some understanding as to the Urim and the Thummim, their special character and definite object. The Scripture passages to be mentioned will include every occurrence of the Urim and the Thummim, together with the renderings of those words in the Greek LXX and Latin Vulgate versions of the Old Testament.

It is true that the Bible gives but a slight account of these things, but this by no means warrants commentators in setting the subject on one side in its entirety. Here and there we find indications alike as to object and usage, and from the particulars supplied we may at least be saved from the thought that in this important detail Israel drew upon the experiences of surrounding nations, godless and benighted. According to Holy Scripture, the institution of the oracle was divinely provided.

In proceeding to set forth conclusions arrived at after a careful study of the subject, we begin with the meaning of the two Hebrew words, as first encountered in Exod. xxviii: "Thou shalt put in the Breastplate of Judgment the Urim and the Thummim: and they shall be upon Aaron's heart when he goeth in the holy place."

Our first conclusion is expressed in the words of Dr. Harold Browne, in Smith's *Dictionary of the Bible*. This writer says: "Hebrew scholars, with hardly an exception, regard the word Urim as a plural word for or, meaning 'light,' or 'fire.' It is the same word as occurs in Gen. i, 3: 'Let there be light, and there was light.'"

The LXX, while representing light by the word phos, employs three different words when dealing with Urim—delosis, meaning "manifestation," in Exod. xviii, 30, and Lev. viii, 8; deloi, meaning "visible, clear," in Num. xxvii, 21: Deut. xxxiii, 8; and 1 Sam. xxviii, 6; and part of the verb photizo, to shine, or give light, in Ezra ii, 63, and Neh. vii, 65. There is also a reference to the subject in Ecclus. xlv, 10, with the Greek deloi.

The Vulgate, or Latin version, gives a much wider interpretation to the word, namely, doctrina, meaning "teaching or instruction," in Exod. xxviii, 30, and Deut. xxxiii, 8; per sacerdotes, meaning "by priests," in 1 Sam. xxviii, 6; while in Ecclus. xlv, 10, Urim is paraphrased as meaning "endowed with truth." Thus the Vulgate rendering of the word implies a meaning "endowed with truth" for "giving instruction" "by the hands of priests."

Taken as a whole, the quotations represent eight interpretations, as (1) something expressing a divine manifestation; (2) something visible, or clear; (3) something which shines or gives light; (4) a means for divine teaching or instruction; (5) something by which the High Priest shall consult the Lord (Vulgate of Num. xxvii, 21); (6) something used (alone) by

priests (1 Sam. xxviii, 6); (7) by a learned one (Vulgate, doctus); (8) something endowed with truth (Vulgate).

As to Thummim, in the words of Dr. Harold Browne, there is "almost a consensus of opinion that it is a derivative, in plural form, from the Hebrew word tom, meaning perfection, completeness." The LXX uses the Greek word teleios, meaning "perfection," in Ezra ii, 63, and the word aletheia, meaning "truth," in other passages. With this the Vulgate agrees, by rendering Thummim with perfectus (perfect) in Ezra ii, 63; with veritas (truth) in Exod. xxviii, 30, and Lev. viii, 8; and with eruditus (learned) in Neh. vii, 65.

Thus we find four interpretations of Thummim, as (1) something to "express truth"; (2) something which is "perfect"; (3) expressing "perfection"; (4) obtained or understood by "the learned."

Accordingly we accept Dr. Browne's conclusions that "most modern scholars agree that the best English equivalent for Urim is *light*, and for Thummim is *perfection*." The plural form of the words, ending in *im*, is to be regarded as intensive in meaning, and not merely as suggesting a bald plurality.

Our second conclusion is concerning the nature of the Urim and the Thummim: first, they were instruments of a material substance, separate from the Breastplate itself. This fact follows in part from the words in Exod. xxviii and Lev. viii, where the command is "put in the Breastplate of Judgment the Urim and the Thummim . . . and Aaron put in the Breastplate the Urim and the Thummim." Josephus gives on instead of in, and suggests that the Urim and the Thummim were in some way connected with the stones worn on the shoulder-straps of the Ephod. We must, however, decide for the correctness of the A.V. and the R.V. representing the Hebrew text: something was put into the choshen, that is, into the Breastplate. The verb and preposition correspond with the use in Exod. xxv, 16: "Thou shalt put into the ark the testimony which I shall give thee."

The very meaning of the words Urim and Thummim suggest qualities or entities distinct from the Breastplate itself, and it would manifestly be a false interpretation of the command to read it as implying that light and perfection, truth and instruction, were to be put on the Breastplate. Most certainly it was never in the power of the High Priest to put or place any such qualities upon the Breastplate. We read in Deut. xxxiii, 8: "Let

thy Thummim and thy Urim be with thy Holy One." The contents of the Ephod could be with God's Holy One, but a divine manifestation, light, truth, instruction could not be with the High Priest, though they might, as qualities or entities, be given to him each time he approached the Almighty for guidance or direction.

The mistake expressed in the words of Josephus, and blindly followed by others, has led to much fruitless speculation; also the theory that the Urim and the Thummim, as manifestations, were connected with the shoulder-stones of the Ephod. For this there is no support whatever in the allusions of Holy Scripture. The distinguished Jewish commentator, Kalisch, gave a sound lead when he said that the Urim and the Thummim were kept within the folds of the Breastplate; and in partial harmony with this, a writer in the Jewish Encyclopædia advanced a description of the Urim and the Thummim as "sacred dice."

My own conclusion (1) is that the instruments were of a material nature, placed within the folded *choshen*, or Breast-plate, which was to be "doubled" so as to form a kind of bag or pouch, wherein the Urim and the Thummim were deposited. And whereas Josephus maintains that the Breastplate was doubled to give it strength, we must go further and (2) find in the doubling accommodation provided for things that were distinct from the Breastplate itself; in a word, the fold was a receptacle in which something could be placed and safely carried.

Our third conclusion is concerning the origin of the It has been inferred by some that, in the absence of information as to the origination of the Urim and the Thummim, we must conclude that they represented something already familiar in the time of Moses; in fact, it has been explained that they were symbols already prevalent among surrounding nations, in particular in ancient Egypt and Babylonia. Enquiry along these lines may be fraught with much mischief. If Almighty God has at any time made revelation of Himself, and established means of communication with His creatures, and with a particular nation, why should He not give directions altogether special and original? is no reason to suspect second-hand ideas, or customs taken from heathen nations, to be accepted in the commonwealth of When God commanded the making of an ark, was He merely following a heathen custom of employing a box?

To be particular, the Urim and the Thummim, were placed in the bag or pouch of the Ephod, and I submit that they were two crystal stones. These were objects of a common order—so common as hardly to require explanation. To ask whether heathen nations ever used such stones for a similar purpose, were to pursue a fruitless enquiry.

Our fourth conclusion is that the Urim and the Thummim (two stones) were divinely-appointed means whereby the High Priest was privileged to enquire of God, and receive Divine counsel in regard to questions affecting the people of Israel. This conclusion finds vindication in Deut. xxxiii, 8, and 1 Sam. xxviii, 6. the latter passage we read: "And when Saul enquired of the Lord, the Lord answered him not, neither by dreams, nor by Urim, nor by prophet."

Fifthly, as to the nature of the use of the Urim and the Thummim. In a word, they were means for "casting lots," whereby replies, simple or single, were received in answer to questions submitted by the High Priest. In 1 Sam. xiv, 41, read in the light of the LXX, we have guidance as to the modus operandi. The passage reads as follows: "And Saul said, Lord God of Israel, why hast Thou not answered thy servant this day? If this iniquity be in me, or in my son Jonathan, Lord God of Israel give Urim, but if it be in thy people Israel, give Thummim. Then Jonathan and Saul were taken by lot." The subject is discussed at length in Hastings' Dictionary of the Bible. Most of the questions asked of God were such that a simple answer of Yea or Nay was decisive

Our sixth conclusion is that the crystal stones placed in the Ephod were engraved. Let it be admitted, however, that for this suggestion we have no clear authority. Rather, it is an inference from the facts already before us: (1) They were used for casting lots; (2) the Greek words employed for Urim all lead to the natural supposition that the stones were capable of manifesting light; (3) and no object is more fitted for such a purpose than the somewhat common, but gloriously clear, double-pyramid crystals of pure quartz. It has been suggested that when the Greek translators sometimes rendered Urim by the adjective deloi they intended the word lithoi (stones) to be mentally supplied. Is not this conclusion supported by the fact that the Hebrew word for "lot," goral, originally signified a stone or pebble?

Seventhly, we may go one step further, and suggest that the distinguishing marks between the Urim and the Thummim, the two crystal stones, were simple. The stones were engraved, the one with the letter Aleph and the other with the letter Tau. Aleph is the initial letter of the word Urim. and the first letter of the Hebrew alphabet. Tau is the initial letter of the word Thummim, and is the last letter of the Hebrew alphabet. Since the twelve stones upon the Breastplate were engraved, it is not unlikely that the two which were placed in the pouch of the Ephod were also engraved; and since the answers divinely given to the High Priest's questions were simple, being positive or negative as the case might be, for doing or for not doing certain things, it seems probable, as suggested, that the one stone bore the letter Aleph and the other the letter Tau. Here was the opening Yea of permission, and the closing Nay of refusal—direction at once clear and definite on the part of Him who is at once the Alpha and the Omega of truth and judgment.

Our eighth conclusion applies to the nature of the phenomena by which the divine directions were given. In a word, the method was similar to that adopted by God when giving directions to the children of Israel as to the moving of encampments, namely, by the appearing of the divine Shekinah. I submit that this Divine Glory-Light of God would shine into the one stone or the other, into the Yea stone or the Nay stone, and thus the approval of God, or His refusal, was signified in regard to the particular inquiries made of Him.

A careful study of each passage of Scripture in which reference is made to enquiry of the Lord seems to make it clear that answers of Yes or No were sufficient and fitting in each case. (See Judges i, 1, 2; xx, 23 and 28; 1 Sam. x, 20 and 22.)

From the judgment of the Urim and the Thummim there was no appeal. How could it be otherwise? "The lot is cast into the lap; but the whole disposing thereof is of the Lord" (Prov. xvi, 33). The bosom folds of the upper garment of the High Priest was the receptacle of "the lot," and that lot, the symbol of Divine Providence, was decided by the withdrawal from the pouch of the Urim or the Thummim, or possibly both, the one or the other alive with the Glory-Light of the Divine Presence.

Discussion.

The CHAIRMAN (Dr. Thirtle) said: The paper to which we have listened is one which, I am convinced, will leave an abiding impression in the minds of many. Mr. Cooper has brought under notice, at once helpful and clear, important passages of Holy Scripture—some of them much controverted as to their meaning with particular reference to a feature in the garments of the High Priest in the worship of ancient Israel, of whose robes of consecration details are given in the Old Testament. Over the robe of blue was placed the ephod of "fine twined linen," extending from the shoulders to the waist; and of this we read that it was supplied with shoulder-pieces of onyx stones, on which were engraved the names of the children of Israel: that is, the tribes of the people, six on each stone, in the order of birth of the fathers of the nation. Thus, when appearing before Jehovah attired for sacred service, in Tabernacle or Temple, the High Priest not only stood for the tribes, of which the names were a memorial, but he proclaimed them to be the peculiar heritage of the God of Israel.

In front, the ephod was covered with a breastpiece—four-square and double-called in the English version the "Breastplate of Judgment," which displayed twelve gems, or polished stones, also inscribed with the names of the children of Israel. These were, quite evidently, near to the heart of the High Priest, and also served as a memorial of the tribes before the Lord during holy exercises, and accordingly we read of Aaron that his attire was "an ornament of honour, a work of might, the desires of the eyes, goodly and beautiful" (Ecclus. xlv, 12). And can we doubt that as the Shekinah glory in the Holy of Holies shone upon the jewels, evidence would be afforded that Jehovah had a complacent interest in the people of His choice? Arranged in four rows, of three stones each row, as appeared in the models shown by Mr. Cooper, the stones seem to represent the various tribes in relations that were individual and characteristic alike in their nature and history. Quite evidently the Breastplate was an object of glory and beauty, and when the High Priest entered the Holy place the interests or spiritual prerogatives of the people were declared by memorials of stones set in gold, and the priest, coming behind, had a place that was secondary; though the cause was upon his heart he himself was in the shadow.

As already intimated the breastpiece was double, and thus was provided a pocket or pouch, into which were placed other utensils or gems, as Mr. Cooper has suggested, to be precise, two pieces of rock-crystal, apparently inscribed in a manner that distinguished the one piece from the other. If crystal, as suggested, may we not ask whether we have not in the Urim and the Thummim. an instrument which, in the distant past, explains the practice of crystal-gazing, which has had a degrading vogue during thousands of years? These utensils, we would suggest, were not fixtures in the Breastplate, but were placed therein, as it were lodged within the fold, in order that, by measures at once simple and well understood, on the part of the priest, people, and prince, the will of God might be sought in regard to the acts and ways of the chosen nation. Known as the Urim and the Thummim, these utensils, these gems or crystal stones, constituted a divine oracle which was consulted in days before inspired prophets had been raised up to serve the nation in the Name of God.

Thus we see the Urim and the Thummim were placed in the pouch of the breastpiece, to be withdrawn by the High Priest in times when the mind of God was sought on behalf of the people, and it was in view of this that the breastpiece was designated the "Breastplate of Judgment" or decision. In a sense that was special and definite, the Urim and the Thummim were, as we read in Exod. xxviii, 30, "upon Aaron's heart," and whenever the wellbeing of Israel was, so to say, in the balance, the oracle was consulted. The High Priestly hand drew one of the stones from the pocket of the Breastplate: he drew a stone. He did not draw a stone of his own choice or selection, but one which the Providence of God ordained should appear, and the issue, whether "yes" or "no"—whether Urim or Thummim—was regarded as the answer of God to the prayer or desire of His people.

The process followed has been indicated by Mr. Cooper, as I think with accuracy and force. In view of intimations gathered from Holy Scripture, we are, I hold, justified in the conclusion that *Urim* (Lights) spoke "yes," or acquiescence, and that *Thummim*

(Perfections) spoke "no," or disapproval. The one told of a course divinely *opened*, the other of a course divinely *closed*. And when the utensils or gems, taken from the "Breastplate of Judgment" had delivered their message, there was nothing for it but that the people should obey, accepting and following the will of God as thus ascertained.

In days of exile and estrangement from God, as the prophet Hosea makes plain, Israel is not only without king and prince, but also without sacrifice and priestly ephod, and, if without ephod, then also without the "Breastplate of Judgment." And this is an acknowledged fact of history. But who will doubt, in the light of prophecy, that there is in store for the nation a restoration of divine communion, with a revival of kingship and priesthood, also of sanctuary and oracle, all of them assured for Israel in the days of the Messiah, as implied in Hos. iii, 5? The present is not the time to pursue this issue: enough to realize that, though the Urim and the Thummim are gone, and though the prophets of Israel belong to the past, yet in Christ prophecy and priesthood reach their climax of glory. If we have not the Urim and the Thummim we have the God who gave providential guidance to His people in the ancient days, with experience of His continuing favour.

Our lecturer quoted the words of the wise man: "The lot is cast into the lap; but the whole disposing thereof is of the Lord," in other words, as I would suggest, the Urim and the Thummim, though operated by man, was dominated by Jehovah, who gave decision by the "Breastplate of Judgment." If this passage does not propound the process yet its terms are in manifest agreement therewith.

In conclusion, Dr. Thirtle moved a vote of thanks to the lecturer, and the same was carried with acclamation.

The Rev. A. H. Finn said: There are a number of points in the paper open to criticism, and two in particular:—

(A) Shoham.—Where the word first occurs, Gen. ii, 12, the Greek has prasinos, of a leek-green colour, which might perhaps apply to the beryl. In Exod. xxv, 7, the Greek has sardius; in xxviii, 9, emerald; and in xxviii, 20, beryl. It is fairly evident that the

translators of the Pentateuch did not know precisely what this stone was. In Job xxviii, 16, it is called onyx, and in 1 Chron. xxix, 2, the translator shows his ignorance by merely turning the Hebrew into Greek letters. In Ezek. xxviii, 13, there is a list of nine jewels, all belonging to the Exodus list, but in quite a different order; instead of translating this the LXX simply gives the whole twelve as arranged in Exodus. The LXX renderings cannot be relied on, and our author himself rejects several of them. Then if the Greek words are not to be trusted the evidence of Theophrastus and Pliny becomes irrelevant, since they only deal with the Greek.

The Arabic Musahham, though used for a garment which was striped, is from the verb saham, which means to be pale or pallid without any reference to stripes. The epithet, therefore, probably refers only to the weak colouring of the garment. If the Hebrew shoham is connected with the Arabic shaham (as it may be), that, too, probably refers to the colour of the stone, as the Greek prasinos does. It is by no means clear that the onyx is indicated.

The quotation from 1 Chron. xxix, 2 (p. 67), is not completed. After enumerating gold, silver, brass, iron and shoham stones, it goes on: "stones to be set, stones for inlaid work and of divers colours, and all manner of precious stones, and marble stones in abundance." It is not quite fair to couple shohams with "in abundance," and then infer that these were "materials for building."

(B) Urim and Thummim.—The statements that these were "instruments of a material substance" (p. 71), "crystal stones" (p. 73), "engraved" with the letters Aleph and Tau (p. 74), are at best only inferences depending on the assertion that they were "put in" the Breastplate. It is true the Tables of the Law were placed in the Ark, and that the English of Exod. xxv, 16, has "put into" (the Greek even more strongly "cast into"). Yet this does not determine the meaning of the phrase in Exod. xxviii, 30, and Lev. viii, 8. In all three places the Hebrew has some form of nathan, "give," and the preposition el, "to" or "unto." If the Greek has "cast into" in Exod. xxv, 16, it distinctly has "place upon" in the other two passages. The Hebrew gives no countenance to the rendering "put in" or "into,"

nor would it be possible unless the Breastplate was a kind of bag, and it is very doubtful that the word *caphool*, "double," in Exod. xxviii, 16, means anything of the sort. It is also most unlikely that names of plural form would be given to single stones. There is no reason to think that the plural is "intensive in meaning" (p. 71).

The phrase "the Urim and the Thummim"—so emphatic that it might almost be rendered "these Urim and these Thummim"—comes immediately (Exod. xxviii, 30) after the injunction that Aaron was to bear on his heart "the names of the children of Israel" which were engraved on the jewels of the Breastplate. In Lev. viii, 8, it follows a mere mention of the Breastplate without any details given. Why, then, may not "the Lights and the Perfections" be a sort of summary term for the jewels themselves? It would be an apt description and would justify the use of the plurals. The Hebrew of 1 Sam. xiv, 41, gives no sanction to the LXX gloss. The enquiry by "the judgment of the Urim" (Num. xxvii, 21), which explains the regular term "the Breastplate of Judgment," may mean that the response was by some special flashing of the jewels.

Some minor points:—(1) Diamond, Ruby, Topaz, and Sapphire are ruled out because of their hardness (pp. 62-65). Is it not possible that the ancient Egyptians knew how to engrave them, though the art was afterwards lost and not recovered for many centuries? (2) That the first stone of the Breastplate, Odem, was "chosen as symbolical of the redemption by blood of the firstborn" (p. 63) is an assumption. Were the other stones symbolical, and, if so, of what? (3) I do not know what authority there is for connecting Pitdah with "engraved" (p. 64). Fuerst connects it with a root meaning "bright," "glittering." (4) That Saphir is "without doubt the modern Lapis Lazuli" (p. 65) is questionable. Job xxviii, 6, only says (lit.): "The place of Saphir is her stones, and dust of gold is to it" (or "him"). The name rather suggests that the Greek "sapphire" is right. (5) "Most precious" (Rev. xxi, 11) is simply the superlative of the ordinary word for "precious," i.e. costly, valuable. There is no suggestion of "polished" (p. 68).

Lieut.-Col. T. C. SKINNER said: It is good that the lecturer has bestowed so much care on the eleventh stone, for, on grounds quite other than those he urges his judgment would seem to be confirmed. There can, at any rate, be no gainsaying the fact that the eleventh stone and the two shoulder-stones were the same; it is when we attach the names that the significance of choice appears.

Pastor F. H. White, in his invaluable book, Christ in the Tabernacle, while allocating the names correctly in regard to the shoulder-pieces, as in Exod. xxviii, 9-11, makes a strange mistake in giving a different list for the Breastplate stones, excluding Levi and Joseph in order to find places for Ephraim and Manasseh. Doubtless it is, and can be argued, but I submit that the effect is to destroy one of the most marvellously beautiful pieces of symbolic teaching in all the Bible.

The names are the names of Jacob's children, the original twelve tribes, whether we inscribe them from left to right, or from right to left, Hebrew fashion, the eleventh stone inevitably falls to Joseph, and, the two shoulder-stones, being also onyx, clearly belong, also, to him who was separated from his brethren, despised, rejected, but exalted of God to be a prince and a saviour, to carry them on his strong shoulders, and be for all time a type of Jesus, their Lord and ours. The shoulder-stones were to be for stones of memorial that Israel might ever remember their sin and the one who saved them with so great deliverance. Is it not also significant that the onyx, though costly, in the sense that marbles are costly, was not regarded a precious stone. "When we shall see Him, there is no beauty that we should desire Him," and that, right away at the beginning there is, in the abundance of onyx, a suggestion of "plenteous redemption."

Mr. W. C. Edwards said: May I remind you that the ephod was cut in such a way as to leave the breast of the High Priest bare, exactly to fit. The Breastplate was, therefore, on to the bare skin, with nothing between. I think that a careful study will show that there was what we may call a splendid "colour-scheme" in the Breastplate, which made it a thing of glory and beauty. I suggest that, with the help of the paper, each one should draw a plan and enter the various colours to see what I mean. I once

noted that most of these stones were of the seventh degree of hardness, and all about the same specific gravity, say, round about 2.600.

If I understand things aright the cloth belonging to the Breastplate was two spans long and one span wide. This was folded in two, and thus made a pocket of the same size as the Breast-Following the lecturer, I imagine that there were two stones unwrought and placed in "the pocket." The High Priest went into the Holy place to enquire at times of great national urgency—to do or not to do? "Yes" or "no"? When he came out, the Shekinah glory, like that glory which remained upon the face of Moses, shone upon the stone that gave the answer. I would suggest that the High Priest may have taken out one stone with the right hand and the other with the left. If the right-hand stone shone with splendour and the left-hand stone was dull the answer was in the affirmative and vice versa. If neither shone, then it was, as in the later days of the reign of Saul, "the Lord answered not, neither by dreams nor by Urim, nor by the prophets" (1 Sam. xxviii, 6).

Mr. Sidney Collett said: The paper is evidently the result of the study of a lifetime, and is most interesting and instructive. The discussion, as usual, has also been interesting. But, as regards the Urim and the Thummim, about which so much has been said, we really know practically nothing at all, and it is well that we should face that fact. We know the meaning of the actual words as "Lights" and "Perfections"; but what they were and in what way God was pleased to make known His will by means of them the Scripture is absolutely silent. I believe it is a fact that no living man really knows what they were or how the Word of God was revealed by means of them.

Mr. Percy O. Ruoff said: I desire to ask a question arising out of the last paragraph of the paper, and the interpretation of the words, "The lot is cast into the lap, but the whole disposing thereof is of the Lord." I have had frequent occasion to give an exposition of the passage, and have submitted two explanations, one, the practice at one time among the Jews of employing a child of tender

years to draw a lot to determine the question in issue (a child being selected to prevent collusion), and, secondly, the drawing up of a lot from the pouch of the High Priest's garment, and thus giving the judgment of the Urim and the Thummim. Can it be determined with accuracy and certainty which of these two explanations is true? Do any or all of the principal words, viz., "the lot," "cast," "the lap," "the whole disposing," afford sufficient evidence for fixing the meaning?

Mr. W. Hoste said: It is refreshing to listen to a paper in which the Scriptures are treated, not as the poor infra-human patchwork of the Modernist, but in the way which alone explains their enduring influence, universality and perennial freshness, as a Divine Revela-The lecturer offers instruction on many points which have often puzzled. On the recondite matter of the Urim and the Thummim further light may well be sought. It is not possible to say that questions would always be answered with a "yes" or "no," e.g. that which opens the book of the Judges: "Who shall go up for us against the Canaanites first?" "Yes" or "no." here would have been inconsequent. This special subject is referred to specifically, I think, only seven times in the Scriptures, in four of which, viz., Exod. xxviii, 30; Lev. viii, 8; Ezra ii, 63; Neh. vii, 65, Urim is mentioned first; then, once, Deut. xxxiii, 8, the order is Thummim and Urim; and in the two remaining places, Num. xxvii, 21, and 1 Sam. xxviii, 6, Urim is mentioned alone. Hence it seems legitimate to infer that Urim was of primary, and Thummim of subsidiary, importance. This is confirmed by the meaning of Thummim which is, I suggest, better rendered "supplements" than "perfections." Gesenius gives among the meanings of Tămăm (the verbal root from which Thummim comes), "to complete," "to make up a number," etc. Dr. Edersheim suggests that the Urim were little lights which could be let down into the hollow of the Breastplate, and which illuminated the stones set in the front of it to the names engraved thereon. But five letters out of the twenty-two of the Hebrew alphabet are wanting in those names; they seem to be the Tzadi, Cheth, Teth, Coph and Samech. If this theory be correct then these letters would have been engraved on a loose supplementary transparent stone, which would be kept

in the Breastplate, and in case the letters in the Breastplate stones failed to make complete sense then the supplementary stone would be requisitioned and the missing letter or letters supplied. If it be retorted that Dr. Edersheim got this from Josephus, then the reply is that this may be one of the instances where Josephus is right.

REPLY BY THE LECTURER.

I am grateful to Mr. Finn and others for taking the trouble to criticize my paper. I am not out to defend my opinions, but rather to try and discover, as far as possible, the true facts as they bear upon the subject under consideration. For my own part, I much regret that so few people are sufficiently interested to make independent inquiry regarding the many points at issue.

Mr. Finn's remarks upon the *Shoham* stone tend to make me more convinced than before that this is correctly interpreted as the Onyx. My critic admits that in five different passages the LXX translates the Hebrew word *Shoham* by five different Greek words. To me this appears to show very clearly that there was no unity of judgment in the minds of the Greek translators.

- (1) Sardius.—All known authorities, including the LXX version, agree that the Hebrew word "Odem" (red) should be translated "Sardius." My own comment, that the reference is to the blood-red variety, now known as Carnelian, seems to be sufficient to rule out Mr. Finn's claim as to Exod. xxv, 7.
- (2) Prasinos.—Described by Theophrastus, Pliny, and others as of leek-green colour, a variety of Jasper. This is a stone often referred to by the ancients, and therefore well known. It belongs to the family of chalcedony; it was cut from the rock or a lump of chalcedony. No one suggests that "Prasinos" occurred as separate stones, such as beryls, emeralds, and onyxes. But this is what seems to be implied in two Scripture passages, e.g. Gen. ii, 12, that onyx stones were common to that land, which is true to nature, for they lie about at the foot of the mountains as nodules to this day. Again, in 1 Chron. xxix, 2, we read that David supplied wood and iron (substances), and onyx stones, i.e. the natural stones, not pieces of rock. Thus I think that "Prasinos" is also ruled out as a rendering of Shoham.

(3) As to Beryl.—Distinctive in nature and crystallization, beryls have, for the most part, been clearly defined by ancient writers, and could not easily be confounded with onyx nodules. Moreover, the fact that beryls are not found in regions described in the passage quoted, while onyxes are, points the conclusion that the LXX is wrong in Exod. xxviii, 20, also.

From these remarks it will be seen that I do not entirely depend upon descriptions given by the Greek writers.

Coming to the criticism passed upon the Urim and the Thummim section of my paper, I admit that some of my statements were inferences; but I think they have this merit, that they were based upon Scripture texts, and were not inconsistent with the information conveyed. In support of the theory that the Urim and the Thummim were distinct from the stones in the Breastplate, I refer to the general tenor of the Scripture passages to which I called attention. These seem to me to show that the Urim and the Thummim were, as objects, distinct from the stones in the Breastplate.

On other points raised I would make reply: (1) As to the hard stones: In every case where ancient Egyptian and Babylonian tombs have been opened, not one really hard stone has been found. (2) As to my reference to symbolism of the colours of the stones: I may remark that many students have felt led to a similar conclusion; and I think it probable that these sacred objects were symbolical in other ways. (3) The Sapphire: I cannot see that the literal rendering of Job xxviii alters my claim on this point, a claim which is in entire agreement with the description given by the Greek writers. Moreover, most authorities acquiesce in my contention that the stone was a lapis lazuli.

I thank Colonel Skinner for his remarks on Shoham, identifying the eleventh stone, in point of substance, with the two shoulderstones—both of them onyxes.

In reply to the question of Mr. Ruoff, I would say that, while not pretending to find in Prov. xvi, 33, a precise description of the act of consulting God by the Urim and the Thummim, I have found in that passage an allusion to the practice. For one thing, the Hebrew word rendered "deciding" is mishpât, the same word as is used to define the Breastplate in the book of Exodus, the "Breastplate of Judgment" (chôshěn mishpât).

I recognize the force of Mr. Hoste's remarks; and in reply I may say that it seems to me that inquiry could in any case have been so submitted as to be satisfied by a simple answer, "Yea" or "Nay." Might not the text chosen by Mr. Host, "Who shall go up?" be regarded as representing a series of inquiries, e.g. "Shall Judah go up?", "Shall Ephraim go up?", and so on, until the answer was received?