

# The “Huge” Spectacles or Urim and Thummim

Towards an accurate description

Sept 30, 2021

# General Descriptions

# Palmyra Freeman, Circa August 1829

“Golden Bible”, as reprinted in the Advertiser and Telegraph (Rochester), 31 Aug. 1829 and Painesville Telegraph, 22 Sept. 1829

## Comments

- Early report of “huge pair of Spectacles”
- Report of placing the spectacles in the hat for translation.

## Quote

In the fall of 1827, a person by the name of Joseph Smith ...reported that he had been visited in a dream by the spirit of the Almighty, and informed that in a certain hill in that town, was deposited a **golden Bible**, containing an ancient record of a diving nature and origin. After having been thrice visited, as he states, he proceeded to the spot, and after penetrating “mother earth” a short distance the Bible was found, together with a **huge pair of Spectacles**! He had been directed, however, not to let any mortal being examine them, “under no less penalty than instant death.” They were therefore, nicely wrapped up and excluded from the “vulgar gaze of poor wicked mortals!” It was said that the leaves of the Bible were plates of gold, about eight inches thick, on which were engraved characters or Hieroglyphics. **By placing the spectacles in a hat, and looking into it, Smith could (he said so, at least) interpret these characters.**

## Source:

As quoted in Early Mormon Documents, Dan Vogel, Vol 1, pg 221

## Various Later Sources

As shown below

### Comments

- Early report of “huge pair of Spectacles”
- Report of placing the spectacles in the hat for translation.

### Quote

With the book was also found, or so pretended, a **huge pair of spectacles** in a perfect state of preservation, of the *Urim* and *Thummim*, *as afterward interpreted*, whereby the mystic record was to be translated and the wonderful dealings of God revealed to man...[1]

...[T]ranslations... as made by [Smith] with the aid of the **mammoth spectacles** or *Urim* and *Thummim*. [2]

Accompanying the plates is a pair of **huge spectacles**, the *Urim* and *Thummim*, by the aid of which the tablets are to become available. [3]

[A]long with the plates, was found a **huge pair of silver spectacles, altogether too large for the present race of men**, but which were to be used, nevertheless, in translating the plates.[4]

## Sources

1. Pomeroy Tucker Account, 1867 as quoted in Early Mormon Documents, Dan Vogel, Vol 3 pg 103.
2. Ibid, pg 105
3. Anna Ruth Eaton Statement, 1881, Vogel, Vol 3, pg 150
4. Eber D. Howed Account, 1834, Vogel, Vol 3, pg 305

# Rochester (NY) Gem 1

5 September 1829: 70

## Comments

- Early report of “large pair of Spectacles”
- Report of placing the spectacles in the hat for translation.
- Very similar to the Palmyra Freeman account and likely influenced significantly by this earlier account.

## Quote

A man by the name of Martin Harris was in this village a few days since endeavouring to make a contract for printing a large quantity of a work called the Golden Bible. He gave something like the following account of it...

He states that after the third visit from the same spirit in a dream, he proceeded to the spot, removed earth, and there found the bible, together with a large pair of spectacles...

By placing the spectacles in a hat and looking into it, Smith interprets the characters into the English language.

## Spectacles “big”

# Benjamin Saunders Interview, Circa September 1884

Benjamin Saunders, Interviewed by William H. Kelly, circa Sept 1884, 19-30, “Miscellany,”  
RLDS Church Library-Archives, Independence, Missouri

### Comments

- Another report of “big” spectacles from a friendly source

### Quote

...He [Joseph] found a big pair of Spectacles.

Specific Descriptions

# Martin Harris Interview with Joel Tiffany, 1859

“Mormonism – No. II,” Tiffany’s Monthly, (August 1859): 163-70.

## Comments

- Dimensions:
  - 4 inches for the connecting rod
  - 2 inch diameter white stones
  - 8 inches overall size
- Calculated center to center distance:
  - 6 inches = 152 mm

As quoted in Early Mormon Documents, Dan Vogel, Vol 1, pg 305

## Quote

Joseph did not dig for these plates. They were placed in this way: four stones were set up and covered with a flat stone, oval on the upper side and flat on the bottom. Beneath this was a little platform upon which the plates were laid; and the **two stones set in a bow of silver by means of which the plates were translated**, were found underneath the plates.

These plates were seven inches wide by eight inches in length, and were the thickness of plates of tin; the when piled one above the other they were altogether about four inches thick; and they were put together on the back by three silver rings, so that they would open like a book.

**The two stones set in a bow of silver were about two inches in diameter, perfectly round, and about five-eighths of an inch thick at the centre; but not so thick at the edges where they [p. 165] came into the bow. They were joined by a round bar of silver, about three-eighths of an inch in diameter, and about four inches long, which, with the two stones would make eight inches.**

**The stones were white, like polished marble, with a few gray streaks.** I never dared to look into them by placing them in the hat, because moses said that ‘no man could see God and live,’ and we could see anything we wished by looking into them; and I could not keep the desire to see God out of my mind. And beside, we had a command to let no man look into them, except by the command of God, lest he should ‘look aught and perish.’



Spectacles 'one and a half inches longer' i.e. 6.25" wide

## Joseph Smith Sr. Interview with Fayette Lapham, 1830

Fayette Lapham, "Interview with the Father of Joseph Smith, the Mormon Prophet, Fourty Years Ago. His Account of the Finding of the Sacred Plates," Historical Magazine [second series] 7 (May 1870): 305-309

Quote

Comments

- Dimensions:
  - 1.5 inches "longer" = wider?
  - Present glasses of that time were typically 4.75" wide.
  - $1.5" + 4.75" = 6.25"$
  - Center to center perhaps 4-4.25"
- Eyes not of glass, but of "diamond"

"I weighed it [i.e. the Golden Plates]," said Mr. smith, Senior, "and it weighted thirty pounds."

In answer to our question, as to what is was that Joseph had thus obtained, he said it consisted of a set of gold plates, about six inches wide, and nine or ten inches long. They were in the form of a book, half an inch thick, but were not bound at the back, like our books, but were held together by several gold rings, in such a way that the plates could be opened similar to a book. **Under the first plate, or lid, he found a pair of spectacles, about one and a half inches longer than those use at the present day, the eyes not of glass, but of diamond.** On the next page were representations of all the masonic implements, as used by masons at the present day. The remaining pages were closely written over in characters of some unknown tongue, the last containing the alphabet of this unknown language...

As quoted in Early Mormon Documents, Dan Vogel, Vol 1, pg 462-463

# Spectacles from the 1700s



Late 1700s or early 1800s spectacles  
hinge to hinge is  $4 \frac{3}{4}$ " across and  $1 \frac{1}{8}$ " across the bridge

## Parley Chase to [James T. Cobb?]

Wilhelm Ritter von Wymetal, Joseph Smith, the Prophet, His Family and His Friends (Salt Lake City: Tribune Printing and Publishing Co., 1886, 276.

### Comments

- As “big as a breakfast plate”
- Plates in the early 1800s appear to be between about 7-9 inches.

### Quote

When [Joseph] Smith first told of getting the book of plates he said it would tell him how to get hidden treasures in the earth; and his father, soon after they got the plates, came in to my mother's on morning, just after breakfast, and told that Joe had a book and that it would tell him how to get money that was buried in the ground, and that he also found a pair of EYE-GLASSES on the book by which he could interpret it, and that the glasses were as big as a breakfast plate...

# 1820s plate

- 7.25" wide



- 8" wide



- 9.75" wide

Breakfast plates are likely smaller than dinner plates. It looks like 8" was typical for this period.



Lenses at least 1.5" in diameter

## Daniel Hendrix Reminiscence, 1893

"Origin of Mormonism. Jose Smith ad His Early Habits. How he Found the Golden Plates. A contemporary of the Prophet Relates Some Interesting Facts," San Francisco Chronicle, 14 May 1893, 12.

### Comments

- Lenses "larger than a silver dollar"
- From 1840-1921, the silver dollar had a diameter of 38.1 mm = 1.5"
- This aligns well with Harris' statement of a 2" stone lens.

### Quote

...he claimed to have found with the "Gold Bible," as they then always called it, a wonderful pair of spectacles, which he described as having **very large round glasses, larger than a silver dollar**, and he asserted that by placing the plates in the bottom of a hat or other deep receptacle, like a wooden grain measure, he could put on those spectacles, and, looking down upon the plates, the engraved characters were all translated into good, plain English and he had only to read it off and have it recorded by a copyist.

Why so big?

## Why were the spectacles so large?

# Joseph Smith Sr. Interview with Fayette Lapham, 1830

Fayette Lapham, "Interview with the Father of Joseph Smith, the Mormon Prophet, Fourty Years Ago. His Account of the Finding of the Sacred Plates," Historical Magazine [second series] 7 (May 1870): 305-309

Quote

Comments

- Joseph Smith senior explains why the spectacles are so large: They were created or used by the Jaradites who were "a very large race of men."
- Explains that they are used by putting them on your face and then putting your face in a skin [or hat].

...they [Lehi and his descendants] came to a county where there were a great many lakes; which country had once been settled by a **very large race of men**, who were **very rich, having a great deal of money**. For some unknown cause, the nation had become extinct; "but that money," said Smith, "is here, now, every dollar of it." When they, the Jews, first beheld this country, they sent out spies to see what manner of country it was, who reported that **the country appeared to have been settled by a very large race of men**, and had been, to all appearances, a very right agricultural and manufacturing nation. They also found something of which they did not know the use, but when they went into the tabernacle, a voice said, "What have you got in your hand, there?" They replied that they did not know, but had come to inquire; when the voice said, "**Put it on your face, and put your face in a skin, and you will see what it is.**" They did so, and could see everything of the past, present, and future; and it was the same spectacles that Joseph found with the gold plates.



## Why were the spectacles so large?

### Lucy Mack Smith

#### Comments

- Lucy Mack Smith mentions the breastplate, also made (evidently) for someone who was “extraordinary” in size.

#### Quote

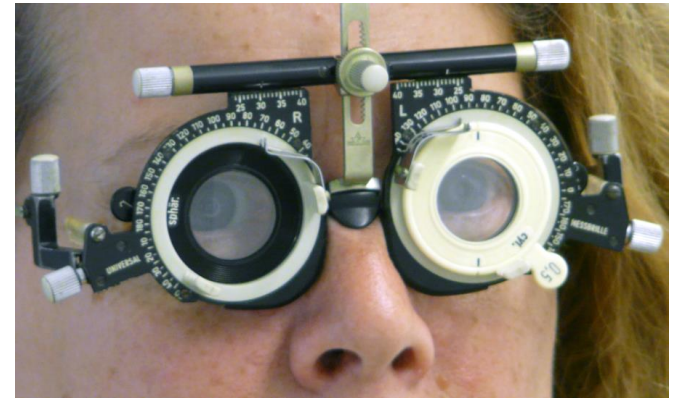
[the breastplate] was concave on one side and convex on the other, and extended from the neck downwards as far as the center of the stomach of a **man of extraordinary size...**



# Pupillary distance – an overview

Standard separations as measured by the US military

- Typical glasses should be 64 mm (2.5") center to center (2012 US population – 1830 would be smaller).
- In a typical population, the maximum separation one would see is about 72.5 mm.
- Given that the minimum (1%) is 56 mm, the total spread for the population is about 16 mm
- Adding  $8.5 \text{ mm} * 3 = 25.5 \text{ mm}$  (3 sigma) gives a “1 in a million” size of 89.5 mm. We should not expect the centers of real glasses to ever exceed this limit of 3.52 inches



Pupillary distance as measured during an eye exam  
(source: Wikipedia - [https://en.wikipedia.org/wiki/Pupillary\\_distance](https://en.wikipedia.org/wiki/Pupillary_distance)  
retrieved 2020.09.11

IPD values (mm) from 2012 Army Survey

Gender	Sample size	Mean	Standard deviation	Minimum	Maximum	Percentile				
						1st	5th	50th	95th	99th
Female	1986	61.7	3.6	51.0	74.5	53.5	55.5	62.0	67.5	70.5
Male	4082	64.0	3.4	53.0	77.0	56.0	58.5	64.0	70.0	72.5

2012 Army Survey

# Summary of the Pupillary distance

- Joseph Smith SR account: 4.25"
- Martin Harris account: 6"
- Parley Chase account: 6"
- Average person: 2.5"
- Statistical limit (1 in a million size): 3.5"

# How big would the Jaradites needed to be for the spectacles to fit?

- Average human height: 175 cm (5'9")
- Average pupillary distance: 64 mm (2.5")
- Conservative/smallest size of Spectacles: 127 mm (5")
- => simple scaling leads us to conclude that the Jaradites who wore these glasses would be about 3.5 m (11' 6") tall.
- The world's tallest person is 2.57 m

# Spectacles as described by Harris

- Prototype built
- Huge, but not practical
- Bars are thinner than described, but lens size and separation match description



# Conclusion

- The spectacles were “huge”.
- They would have only fit a person who was over 10 ft in height
- It appears that they were based on myths of an ancient race of giants as confirmed by Joseph’s parents.
- Depictions by the church in artwork and text are missing or inaccurate (see slides 27-29).
- Spectacles were not called the Urim and Thummim until 1832 or 1833.

Additional quotes and  
information

# Joseph Smith Sr. Interview with Fayette Lapham, 1830

Fayette Lapham, "Interview with the Father of Joseph Smith, the Mormon Prophet, Fourty Years Ago. His Account of the Finding of the Sacred Plates," Historical Magazine [second series] 7 (May 1870): 305-309

Quote

Comments

- No dimensions given, but additional details or claims regarding how the spectacles were used.

...he [Joseph] and Martin went to Harmony, in Pennsylvania, where they would be less persecuted, and where **Joseph, with spectacles on, translated the characters on the gold plates, and Harris recorded the result...**

[after Martin lost the 116 pages] [Joseph] went to his drawer to get them [the plates], behold! They were not there; the Lord had taken them away.

Joseph and Harris returned to Harmony, and found the plates missing – the Lord had taken them also. **Then Joseph put on the spectacles, and saw where the Lord had hid them, among the rocks, in the mountains.** Though not allowed to get them, **he could, by the help of the spectacles, read them where they were, as well as if they were before him.**

As quoted in Early Mormon Documents, Dan Vogel, Vol 1, pg 464

Magical spectacles similar to normal ones, but larger

## Martin Harris Interview with Edward Stevenson, 1870

Edward Stevenson to the Editor, 30 November 1881, Deseret Evening News 15 (13 December 1881). Reprinted in Deseret News 30 (28 December 1881): 763; Millennial Star 44 (30 January 1882): 78-79; 44 (6 February 1882): 86-87

### Comments

- In this late retelling by Stevenson, the spectacles become the Urim and Thummim and become “clear”. Martin’s earlier account listed them as white stones with grey stripes.
- “Larger” than normal spectacles as in other accounts.

### Quote

[after telling the story about replacing the seer stone and Joseph not being able to translate with the false stone]  
Martin said further that the seer stone differed in appearance entirely from the Urim and Thummim that was obtained with the plates, which were two clear stones set in two rims, very much resembled spectacles, only they were larger.



## Martin Harris Interview with Joel Tiffany, 1859

"Mormonism – No. II," Tiffany's Monthly, (August 1859): 163-70.

### Comments

- Angel tells Joseph to look into the spectacles to find the person who should help him. This he does and sees Martin Harris.

### Quote

Joseph said the angel told him he must quit the company of money-diggers. That there were wicked men among them. He must have no more to do with them. He must not lie, nor swear, nor steal. He told him **to go and look in the spectacles, and he would show him the man that would assist him.** The he did so, and he saw myself, Martin Harris, standing before him. That struck me with surprise. I told him I wished him to be very careful about these things. 'Well,' said he, 'I saw you standing before me as plainly as I do now.'..

# Orsamus Turner Account, 1851

Orsamus Turner, History of the Pioneer Settlement of Phelps and Gorham's Purchase (Rochester, NY: William Alling, 1851), 212-217

## Comments

- Lenses were mostly likely opaque white stones

## Quote

The Prophet Joseph, was directed by an angel where to find, by excavation, at the place afterwards called Mormon Hill, the gold plates; and was compelled by the angel, much against his will, to be the interpreter of the sacred record they contained, and publish it to the world. That the plates contained a record of the ancient inhabitants of this country, "engraved by Mormon, the son of Nephi." That on the top of the box containing the plates, "a pair of large spectacles were found, the stones or glass set in which were opaque to all but the Prophet," that "these belonged to Mormon, the engraver of the plates, and without them, the plates could not be read." Harris assumed, that himself and Cowdery were the chosen amanuenses, and that the Prophet Joseph, curtained from the world and them, with his spectacles, read from the gold plates what they committed to paper.

1. Orsamus Turner Account, 1851, As quoted in Early Mormon Documents, Dan Vogel, Vol 3 pg 52

# Depiction in church video

- Wrapped so not visible.
- Appear to be shorter than 8 inches
- Plates are 6 x 8 inches
- NONE of the accounts indicate that the plates or the spectacles were wrapped in cloth or skins
- In the various accounts, the spectacles are on top of the plates or under the first plate – not on the side as pictured.



Book of Mormon Video – 2020: <https://youtu.be/UgivBGZWfcE?t=397>

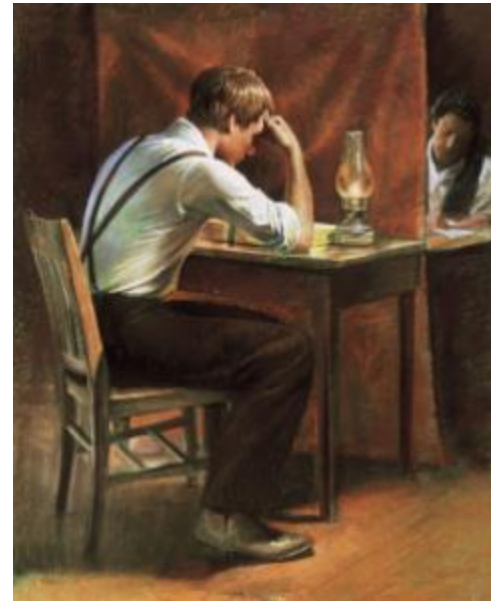


Book of Mormon Video – 2020: <https://youtu.be/UgivBGZWfcE?t=494>

# Official LDS.org web site



Only picture of spectacles on LDS.org showed them as slight oversized and was removed, probably between 2018 and sept 2020.



Only picture of translation on lds.org in 2020.

<https://www.churchofjesuschrist.org/media/image/joseph-smith-translating-mormon-parson-25a0446?lang=eng&collectionId=6010859071fd9369feb6bb51c638aa7844b7a480>



# Other “unofficial” church pictures



<https://knowhy.bookofmormoncentral.org/knowhy/is-there-evidence-that-joseph-smith-possessed-a-urim-and-thummim-and-breastplate>

None of the spectacles are “huge”

### Various sources as noted

#### Comments

- Lenses were mostly likely opaque white stones, but many conflicting accounts also exist

#### Quote

The Urim and Thummim, found with the records, were **two transparent crystals set in the rims of a bow**, in the form of **spectacles of enormous size**. This constituted the seer's instrument whereby the records were to be translated and the mysteries of hidden things revealed, and it was to be supersede the further use of the magic stone...[1]

With the golden plates were also found the Urim and Thummim, the magic spectacles or religious peek-stones, "transparent and clear as crystal," which should translate the hieroglyphics on the plates.[2]

1. Pomeroy Tucker Account, 1867 as quoted in Early Mormon Documents, Dan Vogel, Vol 3 pg 104.
2. Interview with Fredrick G Mather, 1880 as quoted in Vogel, Vol 3, pg 142

# The opinion of the author

- Spectacles were probably
  - 8" across
  - 2" lens size
  - 6" center-to-center
  - Lenses probably consisted of opaque white or grey rocks
  - Would not be practical for any human to look through
  - Likely a modern construction (1827-1829)
  - May have been lost/stolen with the 116 pages
  - No record of them being used or seen after 1830