Henry Grow, Jr. The Pioneer Builder<sup>1</sup> & Unsung Hero Biographical Timeline: 1817-1891



Henry Grow<sup>2</sup>

#### Overview

Henry Grow, Jr. was the architect and engineer who served as a pioneer builder of The Church of Jesus Christ of Latter-day Saints. Henry Grow, Jr. grew up in suburban Philadelphia (around 10 miles away from the new Mormon Temple in Philadelphia), learned bridge building techniques from his family, and eventually became Superintendent of all bridge construction for the Philadelphia, Germantown and Norristown Rail Road Company before traveling out West. Initially, Henry Grow, Jr. went to Nauvoo, Illinois where he worked on the Nauvoo Temple, and then he moved to Salt Lake City where he served as the Superintendent of Temple Block (Square) and designed and built many significant buildings, including the Salt Lake City Tabernacle for Brigham Young. The Salt Lake City Tabernacle, home of the world-famous Mormon Tabernacle Choir, will celebrate its 150<sup>th</sup> anniversary in 2017, and it has served as an amazing time-tested achievement in both engineering and acoustics. Henry Grow, Jr. is credited with using his bridge building skills to create the Tabernacle's roof spanning its 150-foot width without any support pillars. Henry Grow, Jr. also built Social Hall, the Salt Lake Theater, Assembly Hall, the first suspension bridge in Utah across Ogden River, the first sugar factory in Utah at Sugar House, several saw mills; the first woolen mills, the New Deseret Paper Mills, etc.

<sup>&</sup>lt;sup>1</sup> "Tabernacle Is Named Engineering Landmark," By Stephen W. Gibson, Church News Staff Writer, Deseret News, April 3, 1971,

http://news.google.com/newspapers?nid=336&dat=19710403&id=J\_ZPAAAAIBAJ&sjid=PFUDAAAAIBAJ&pg=4866,863245

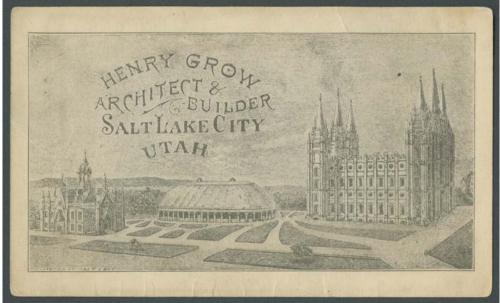
<sup>&</sup>lt;sup>2</sup> "Chapter Thirty-One: The Quest for Self-Sufficiency," Church History In The Fulness Of Times Student Manual, (2003), 393–405, https://www.lds.org/manual/church-history-in-the-fulness-of-times-student-manual/chapter-thirty-one-the-quest-for-self-sufficiency?lang=eng , accessed on August 15, 2014.

According to Frank Esshom's "Pioneers and Prominent Men of Utah", Henry Grow, Jr. was described as follows:

"Served as bishop of 19<sup>th</sup> ward, Salt Lake City. Prominent architect and builder. Among the buildings he erected in Salt Lake City were Social Hall, Mormon Tabernacle 1865-1867, Salt Lake Theater, Z. C. M. I. 1868, Assembly Hall 1877; also built first suspension bridge in Utah, 1853, across Ogden river; the first sugar factory in Utah, 1854, at Sugar House; built several saw mills for President [Brigham] Young in 1855; the first woolen mills, 1859; the first suspension bridges over the Jordan and Weber rivers, 1861; and completed the New Deseret Paper Mills, the first in Utah, in 1883. Missionary to Pennsylvania 1876. City Councilman Salt Lake City 1870-76. Played in the first martial band in Salt Lake City. Died Nov. 4, 1891."<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Esshom, Frank, "Pioneers and Prominent Men of Utah", Utah Pioneers Book Publishing Company, 1913, page 903.

## Henry Grow's Business Card (Side 1)<sup>4</sup>



## Henry Grow's Business Card (Side 2)<sup>5</sup>

LARGE TABERNACLE	
dent BRIGHAM YOUNG. The architect that planned	
this building was Henry Grow, born in Philadelphia, Pennsyl-	
feet high, with 16 doors 10 feet wide and 4 doors 4½ feet wide	
allowing the exit of 13,000 persons in 5 minutes. It is the largest	
in Pennsylvania and New Jersey, and previous to building the	
reason he called upon me to build the roof after that pattern.	
-Henry Grow.	
	AS completed October, 1867, shape was designed by Presi- dent BRIGHAM YOUNG. The architect that planned this building was Henry Grow, born in Philadelphia, Pennsyl- vania. It is 250 feet long by 150 wide; 65 feet to ceiling, 75 to top of roof, standing upon 44 stone pillars 3 by 9 feet and 24 feet high, with 16 doors 10 feet wide and 4 doors 4½ feet wide allowing the exit of 13,000 persons in 5 minutes. It is the largest Hall in the world unsupported by columns, built after the Rem- ington Patent of Lattice Bridges; having built a number of them in Pennsylvania and New Jersey, and previous to building the Tabernacle; I build one on the Weber and another over Jordan River for President Young which are standing today, for that reason he called upon me to build the roof after that pattern.

<sup>&</sup>lt;sup>4</sup> Large Tabernacle. Call Number: M282.21 G884he 18-- no. 2. Identifier:M282.21 G884he 18-- no. 2, https://dcms.lds.org/delivery/DeliveryManagerServlet?dps\_pid=IE4274424 , accessed on August 13, 2014.

<sup>&</sup>lt;sup>5</sup> "Statement on back of Henry Grow's business card printed in 1870: "Large Tabernacle - Was completed October, 1867, shape was designed by President Brigham Young. The architect that planned this building was Henry Grow, born in Philadelphia, Pennsylvania. It is 250 feet long by 150 wide; 65 feet to ceiling, 75 to top of roof, standing upon 44 stone pillars 3 by 9 feet and 24 feet high, with 16 doors 10 feet wide and 4 doors 4½ feet wide allowing the exit of 13,000 persons in 5 minutes. It is the largest Hall in the world unsupported by columns, built after the Remington Patent of Lattice Bridges; having built a number of them in Pennsylvania and New Jersey, and previous to building the Tabernacle, I build [*sic*] one on the Weber and another over Jordan River for President Young which are standing today, for that reason he called upon me to build the roof after that pattern.—Henry Grow"

Source: Large Tabernacle. Call Number: M282.21 G884he 18-- no. 2. Identifier: M282.21 G884he 18-- no. 2, https://dcms.lds.org/delivery/Delivery/ManagerServlet?dps\_pid=IE4274424 , accessed on August 13, 2014.

# Preface

#### December 26, 1809 - 1810

Henry Grow, Sr. and his wife Mary Righter Grow (parents of Henry Grow, Jr.), entered into an indenture (contract) with Montgomery County, Pennsylvania for the construction of the Flat Rock Bridge<sup>6</sup> on the Grow property in Narberth<sup>7</sup> (Penn Valley), Pennsylvania.<sup>8</sup> The Flat Rock Bridge would stretch across the Schuylkill River and would serve to become a "major artery" connecting Flat Rock Road in Montgomery County (including the fabled "Main Line" suburbs of Ardmore, Bryn Mawr, Gladwyne, Haverford, Narberth, Villanova, etc.) to Domino Lane in Philadelphia County (including Chestnut Hill, Manayunk (Flat Rock), Mount Airy and Roxborough). In addition to building the Flat Rock Hotel at the base of the Flat Rock Bridge in Narberth (Penn Valley), it appears that Henry Grow, Sr. was involved in the construction of the Flat Rock Bridge.<sup>9</sup> As such, it is no wonder that Henry Grow, Sr.'s two youngest sons (Henry Grow, Jr. and John W. Grow) chose bridge building as a career.<sup>10</sup>

#### Biography

**October 1, 1817** 

Henry Grow, Jr. was born in the Philadelphia suburbs to Henry Grow, Sr. and Mary Righter Grow<sup>11</sup>, Henry Grow, Jr. was the seventh and youngest child in his family with five girls and two

<sup>7</sup> Parts of Narberth, Pennsylvania also became known as Penn Valley, Pennsylvania around the year 1930. Penn Valley Civic Association, http://pennvalleycivicassociation.org/aboutpennvalley/historyofpennvalley.html .

<sup>8</sup> Pennsylvania was founded by William Penn in 1681. The name Pennsylvania means "Penn's Woods", and it was created by combining the Penn surname (in honor of William Penn's father, Admiral Sir William Penn) with the Latin word "sylvania", meaning "forest land."

<sup>9</sup> Righter, Richard, "Frederich Grow."

<sup>10</sup> Righter, Richard, "Frederich Grow."

http://www.henrygrowfamily.org/documents/Henry%20Grow.pdf

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<sup>&</sup>lt;sup>6</sup> "The Flat Rock Bridge was authorized by the Legislature in 1809 (March 22). It was capitalized at \$10,000.00 in shares of \$50.00 each. It was a single span, roofed, wooden bridge, 187 feet between abutments and 21 feet wide. On September 19, 1823, 'it fell' under 2 loads of marble with 13 horses. It was about to be demolished and replaced but was repaired after the following meeting (noted in Volume 8, 1951-53 of the Montgomery County Historical Society Bulletin.)". "It was decided to repair the bridge and it remained in use until the night of September 1-2, 1850 when it was destroyed during a freshet. Perhaps the latter was the result of the a hurricane in the Atlantic Ocean, similar to the one that caused so much damage in the Summer of 1972.

<sup>&</sup>lt;sup>11</sup> It is believed that Henry Grow, Jr. was born at 1400 block of Flat Rock Road in Narberth, Pennsylvania; however there are some differing accounts that Henry Grow, Jr. was born in Norristown, Pennsylvania or Philadelphia, Pennsylvania. Although no official birth records exist, Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), believes that Henry Grow, Jr. had told some historians that he was born in "Norristown" or "Philadelphia" simply because Henry believed that no one from Utah would have heard of Penn Valley (Lower Merion Township). According to Dean Grow, "A couple of different historians questioned Henry on his biography. Henry, thinking that nobody in Utah in that period knew anything of Lower Merion Township, told one of them Norristown and the other one Philadelphia, just so they [historians] would know where, generally, he was born. One other city he could have named would have been Ardmore, but in the mid-1800's in Utah, they still would have asked "Where is that". We've checked relatives of both Henry Sr. and Mary Righter and none of them were living in those cities [Norristown or Philadelphia] during the time of his birth. The only other possibility [where Henry Grow, Jr. may have been born] would have been the Flat Rock Hotel [in Penn Valley, just down the street from the Grow Family Home], but I don't think Mary [Righter Grow] would have left the comfort of her own home to run down the lane to a hostelry by the river to give birth." Sources: Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, June 19, 2015 and

boys.<sup>12</sup> Henry Grow, Jr. grew up in the 1400 block of Flat Rock Road in Narberth (Penn Valley), Pennsylvania, which later became known as Fairview Summit Farm.<sup>13</sup> Henry Grow, Jr.'s father, Henry Grow, Sr., spearheaded the construction of the Flat Rock Bridge across the Schuylkill River connecting Flat Rock Road in Lower Merion (Montgomery County, Pennsylvania) with Domino Lane in Manayunk (Philadelphia County). Henry Grow, Jr. "grew up on both the farm and around the Flat Rock Hotel, which was very near the railroad. Henry's interest was in things other than farming. He moved to nearby Norristown, Pennsylvania and became an apprentice for the railroad. He became skillful in the design of bridges and the attendant use of carpentry while an apprentice."<sup>14</sup>

## 1826

Henry Grow, Sr. (Henry Grow, Jr.'s father) died when Henry Grow, Jr. was 9 years old.

#### April 6, 1830

The Church of Jesus Christ of Latter-day Saints ("LDS") (Mormons) was organized by Joseph Smith at a log farm home belonging to Peter Whitmer, Sr., in Fayette, Seneca County, New York.<sup>15</sup> Joseph Smith was born of December 23, 1805 and died on June 27, 1844; he served as President of the LDS from January 25, 1832 to June 27, 1844.<sup>16</sup>

#### Prior to 1834

Henry Grow, Jr. apprenticed as a carpenter and joiner. Henry Grow, Jr. worked for the Philadelphia, Norristown and Germantown Rail Road Company and served as the Superintendent of all bridges, culverts, etc. of.<sup>17</sup>

## January 24, 1834

<sup>12</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>13</sup> According to Dean Grow, Vice President of the Henry Grow, Jr. Family Association, and Dean Grow's review of various newspaper articles and occupations as detailed in various Censuses, Henry Grow Jr.'s son-in-laws, and grandsons were grocers who operated markets in Philadelphia, with produce from Fairview Summit Farm. The family of Henry Grow Jr.'s sister Elizabeth and her husband, Benjamin Lentz, also ran a large dairy which served the area besides wholesaling & retailing produce. Henry Grow' Jr.'s oldest sister Catherine, received the Flat Rock Hotel as an inheritance and ran it for almost 10 years, before her husband, Joseph Smith's death in 1836. Then her only son William Smith, at age 13, helped until he became of age and then ran it until the Flat Rock Hotel was sold to the railroad in 1867.

<sup>14</sup> "The Grow Family of Lower Merion", by Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org).

<sup>15</sup> "April 6, 1830: The Day the Church Was Organized", Doyle L. Green, Editor, Web Site, The Church of Jesus Christ of Latter-day Saints, https://www.lds.org/ensign/1971/01/april-6-1830-the-day-the-church-was-organized?lang=eng, accessed on August 4, 2014.

<sup>16</sup> "Joseph Smith Jr., Served 1830–1844", Church History, Web Site, The Church of Jesus Christ of Latter-day Saints, https://www.lds.org/churchhistory/presidents/controllers/potcController.jsp?leader=1&topic=events, accessed on August 4, 2014.

<sup>17</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

Henry Grow, Jr. married Mary Moyer (daughter of Charles Moyer and Elizabeth Bird).<sup>18</sup>

## December 23, 1839

The Prophet Joseph Smith presided over the official organization of the Philadelphia Branch of the LDS Church on December 23, 1839, the date of Prophet Smith's thirty-fourth birthday. The official organization of the LDS Church occurred at a public meeting hall (which no longer stands in 2016) at the corner of 7<sup>th</sup> & Callowhill Streets in Center City Philadelphia.<sup>20 21</sup>

Note that Philadelphia has been referred to as "A Prepared Place" when President Henry B. Eyring stated on September 17, 2011,

"The temple [in Philadelphia, Pennsylvania] we will erect on this ground will bring special joy to one of God's greatest prophets.' He explained that Joseph Smith met and married his wife Emma and worked on the translation of the Book of Mormon in Harmony, Pennsylvania. Heavenly messengers restored the priesthood in Pennsylvania, and the Prophet Joseph Smith presided over the official organization of the Philadelphia Branch on December 23, 1839, the date of his thirty-fourth birthday. President Eyring said, 'I am sure that he is rejoicing today to see us break ground and dedicate it for a temple of God, where he began the work of preparation.''' <sup>22</sup>

## January 13-14, 1840

The first Philadelphia Conference began on January 13, 1840.<sup>23</sup>

<sup>19</sup> Henry and Mary had 7 children of which all survived to marry:

- Charles Moyer Grow was born on June 6, 1840 and died on October 9, 1904.
- William Moyer Grow was born on May 30, 1842 and died on March 11, 1932.
- Brigham Young Grow was born on September 11, 1845 and died on September 23, 1920.
- John Wood Grow was born on December 21, 1848 and died on April 2, 1916.
- Ann Grow was born on December 15, 1851 and died on September 10, 1872.
- Mary Elizabeth Grow was born on January 30, 1854 died on July 14, 1900.

<sup>20</sup> "Mormonism in Early Philadelphia," Historical Society of Pennsylvania, September 3, 2011, https://hsp.org/blogs/hidden-histories/mormonism-in-early-philadelphia

<sup>21</sup> "Site of Joseph Smith's 1839 Philadelphia Sermon Identified," By John Shiffert, May 1993, https://www.lds.org/ensign/1993/05/news-of-the-church/site-of-joseph-smiths-1839-philadelphia-sermonidentified?lang=eng

<sup>22</sup> https://www.lds.org/prophets-and-apostles/unto-all-the-world/temples-a-witness-of-our-faith-presidenteyring?lang=eng ; <u>and</u> Philadelphia Pennsylvania Temple, by The Church of Jesus Christ of Latter-day Saints, http://www.ldschurchtemples.com/philadelphia/

<sup>&</sup>lt;sup>18</sup> Henry Grow Family Web site, http://henrygrowfamily.org/getperson.php?personID=I3&tree=tree1 , accessed on August 30, 2014.

Maria Louisa Grow was born on September 10, 1837 and died on June 13, 1919.

<sup>&</sup>lt;sup>23</sup> "Site of Joseph Smith's 1839 Philadelphia Sermon Identified," By John Shiffert, May 1993, https://www.lds.org/ensign/1993/05/news-of-the-church/site-of-joseph-smiths-1839-philadelphia-sermonidentified?lang=eng

On January 14, 1840, the Prophet Joseph Smith spoke to an audience of about 3,000 people at the First Independent Church of Christ located at 412 Lombard Street in Center City Philadelphia. Smith preached from the Book of Mormon.<sup>24</sup> Sometime after the 1840 sermon, the First Independent Church of Christ became the First Universalist Church, and then in 1889, the church was converted into a synagogue for the congregation of Kesher Israel.<sup>25</sup> According to John Shiffert, the public affairs specialist of the Jarrettown ward, Philadelphia Pennsylvania Stake, "[t]his landmark sermon in Philadelphia has, over the ensuing 153 years [1840-1993], become renowned for the power of the Prophets message and for the mystery surrounding the location [which was identified in 1993]." According to Shiffert,

"[T]he Prophet arose like a lion about to roar; and being full of the Holy Ghost, spoke in great power, bearing testimony of the visions he had seen, the ministering of angels which he had enjoyed; and how he had found the plates of the Book of Mormon, and translated them by the gift and power of God.<sup>26</sup>

## May 1842

Henry Grow, Jr. was baptized into The Church of Jesus Christ of Latter-day Saints in the Delaware River in Philadelphia by William Morton.<sup>27 28</sup>

#### June 1842

Mary [Moyer] Grow was baptized into The Church of Jesus Christ of Latter-day Saints; she waited until after her third child was born.<sup>29</sup>

#### March 1843

Henry Grow, Jr. left Philadelphia for Nauvoo, Illinois.<sup>30</sup> Nauvoo had been purchased by Joseph Smith in 1841, and the area had become the center of the Mormon World. In Nauvoo, Joseph Smith was the Mayor and leader of a Mormon Militia. Smith would be killed in 1844 in nearby Carthage, Illinois when an angry mob stormed his jail cell while he awaited trial for charges of rioting.<sup>31</sup>

<sup>27</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>28</sup> According to Wikipedia, in 1834 there were only 23,564 members of the LDS Church. Source: http://en.wikipedia.org/wiki/The\_Church\_of\_Jesus\_Christ\_of\_Latter-day\_Saints\_membership\_history

<sup>&</sup>lt;sup>24</sup> "Mormonism in Early Philadelphia," Historical Society of Pennsylvania, September 3, 2011, https://hsp.org/blogs/hidden-histories/mormonism-in-early-philadelphia

 <sup>&</sup>lt;sup>25</sup> Kesher Israel, Our History, http://www.historickesherisrael.org/who-we-are/our-history/
<sup>26</sup> "Site of Joseph Smith's 1839 Philadelphia Sermon Identified," By John Shiffert, May 1993, https://www.lds.org/ensign/1993/05/news-of-the-church/site-of-joseph-smiths-1839-philadelphia-sermon-identified?lang=eng

<sup>&</sup>lt;sup>29</sup> "The Grow Family of Lower Merion", by Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org).

<sup>&</sup>lt;sup>30</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>&</sup>lt;sup>31</sup> McKeever, Bill, "Final Moments at Carthage Jail and the Death of Joseph Smith," Mormonism Research Ministry, accessed on August 10, 2014, <a href="http://www.mrm.org/death-of-joseph-smith">http://www.mrm.org/death-of-joseph-smith</a>.

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#### May 15, 1843

Henry Grow, Jr. arrived in Nauvoo, Illinois.<sup>32</sup>

Henry Grow, Jr.'s first project was building a barn for Hyrum Smith, "martyr and brother of the Prophet Joseph [Smith]". <sup>33 34</sup>

#### 1843 - 1846

Henry Grow, Jr. worked on building the Nauvoo Temple in Nauvoo, Illinois.<sup>35</sup>

#### **September 10, 1845**

Henry Grow, Jr.'s son was born and was named Brigham Young Grow.<sup>36</sup>

#### **September 19, 1846**

Henry Grow, Jr. fought in the Battle of Nauvoo in Illinois.<sup>37</sup>

#### 1847

Henry Grow, Jr. became a polygamist.<sup>38</sup>

#### July 28, 1847

"Brigham Young designates location for Salt Lake Temple Block, future home to Tabernacle."<sup>39</sup>

<sup>32</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>33</sup> "Hyrum Smith: The Mildness of a Lamb, the Integrity of Job", By Ronald K. Esplin, https://www.lds.org/ensign/2000/02/hyrum-smith-the-mildness-of-a-lamb-the-integrity-of-job?lang=eng, accessed on August 13, 2014.

<sup>34</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

<sup>35</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128. The Nauvoo Temple was the second Temple built in the history of the Mormon Religion. Construction of the Nauvoo Temple was only half complete when Joseph Smith was killed. By the time the Temple was finished in 1846, most Mormons had already been forced out of Nauvoo, and the Church sold the building before it burned down in 1848. The LDS Church rebuilt the Nauvoo Temple in 2002 (source: http://www.ldschurchtemples.com/originalnauvoo/).

<sup>36</sup> Henry Grow Family Web site, http://henrygrowfamily.org/timeline2.php?primaryID=I2&tree=tree1&chartwidth=, accessed on August 30, 2014. Note that Brigham Young Grow changed his name to George Washington Grow at some point after he got married.

<sup>37</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128. A week of shelling by the Missouri Militia that forced the Mormons out of Nauvoo on September 17, 1846 is referred to as the "Battle of Nauvoo." The commander of the Mormon led militia "Nauvoo Legion" was Brigham Young who directed his followers to leave the city.

<sup>38</sup> "The Grow Family of Lower Merion", by Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org).

<sup>39</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

#### Fall 1847 to Spring 1851

Henry Grow, Jr. may have worked for Holladay & Warner.<sup>40</sup>

(Note: According to Dean Grow, Henry Grow, Jr. worked on a mill in what is now Smithville, Missouri for a "Col Estel". Dean Grow is not sure how Holladay and Warner came into the picture, but according to Dean, it would probably be only Holladay. But since Ben Holladay was in Missouri prior to 1851, Dean Grow believes that it is possible. Holladay and Warner did not become business partners until Utah.)<sup>41</sup>

#### July 1, 1851

Henry Grow, Jr. left Kanesville, Iowa with the James W. Cummings Company along with his family to travel to Salt Lake City.<sup>42</sup>

#### October 1, 1851

Henry Grow, Jr. arrived in Salt Lake City, Utah on his 34<sup>th</sup> birthday.<sup>43</sup>

## 1851

Henry Grow, Jr. worked on the Public Works under Miles A. Romney.<sup>44</sup> Note: Miles A. Romney (1806-1877) was the great-great grandfather of Mitt Romney, 2008 and 2012 Republican Presidential Candidate.<sup>45</sup>

#### Winter, 1851

Henry Grow, Jr. worked on building the Old Tabernacle (which occupied the spot where the Assembly Hall now stands).<sup>46</sup> Henry Grow, Jr. also worked on building the Social Hall.<sup>47</sup>

<sup>40</sup> "Holladay and Warner Freight Train," http://history.lds.org/overlandtravels/companyDetail?companyId=150, accessed on August 13, 2014.

<sup>41</sup> Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, November 6, 2014; and

http://historytogo.utah.gov/utah\_chapters/pioneers\_and\_cowboys/benholladaythestagecoachkinginutah.html

<sup>42</sup> "James W. Cummings Company," Mormon Pioneer Overland Travel, LDS History, accessed August 10, 2014 http://history.lds.org/overlandtravels/companyDetail?lang=eng&companyId=97. The James W. Cummings company was a wagon train led by Mormon James W. Cummings that included about 285-298 people who traveled from Iowa to Salt Lake City, Utah in 1851. Also, see,

http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=7811&sourceId=18343 . With regard to this data contained on this page,

http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=7521&sourceId=1824, it appears that some of these records may not be accurate.

<sup>43</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>44</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>45</sup> Sonmez, Felicia, "Mitt Romney's complex relationship with religion, family explored in new book," The Washington Post, January 14, 2012, http://www.washingtonpost.com/blogs/post-politics/post/mitt-romneys-complex-relationship-with-religion-family-explored-in-new-book/2012/01/14/gIQANVgHzP\_blog.html , accessed August 10, 2014.

<sup>46</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>47</sup> "Built in 1852, Social Hall was the first public building in Utah. Citizens held dances, social events, and theatrical productions in the building. It also served as a meeting place for the territorial legislature and was the site for the

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## 1853

Henry Grow, Jr. built the first suspension bridge in the Utah Territory, across the Ogden River in Ogden, Utah for Jonathan Browning.<sup>48 49 50</sup>

## April 6, 1853

Ground is broken for Salt Lake Temple.<sup>51</sup>

## 1854

Henry Grow, Jr. superintended the construction of the original Sugar House sugar beet mill (the first sugar factory in Utah) under the direction of Bishop Fred Kesler.<sup>52 53 54</sup>

After 1854, Philadelphia, Pennsylvania served as a main port of entry for Latter-day Saints emigrating to the United States from Europe. According to David J. Whittaker, "Because of the serious problems with sickness in the Mississippi River Valley during this time, Brigham Young counseled British Mission leader, Franklin D. Richards, to route Mormon converts through Philadelphia, Boston, or New York, but President Young gave Philadelphia top billing. See the letter of Brigham Young to Franklin D. Richards, 2 August 1854, in Latter-day Saints Millennial Star 16, no. 43 (October 1854): 684."<sup>55</sup>

Red Cross during World War I. The building was destroyed in 1922." Source: "Tribute to Salt Lake City's Social Hall Planned", March 1992, https://www.lds.org/ensign/1992/03/news-of-the-church/tribute-to-salt-lake-citys-social-hall-planned?lang=eng, accessed on August 13, 2014.

<sup>48</sup> Jonathan Browning has been referred to as the "Father of 'the Father of Modern Firearms [Jonathan Moses Browning]'", In Honor of the "Father of 'the Father of Modern Firearms [Jonathan Moses Browning]'", Browning, http://www.browning.com/library/infonews/detail.asp?ID=506, accessed on August 13, 2014.

<sup>49</sup> "Jonathan Browning Home and Gun Shop" and learn about the humble beginnings of the worldwide Browning Arms Corporation- Historic Sites, Nauvoo - Jonathan Browning Nauvoo Home and Gun Shop, https://www.lds.org/locations/jonathon-browning-nauvoo-home-and-gun-shop, accessed on August 13, 2014 (note that the "jonathan" appears to be incorrectly spelled as "jonathon" in the Web site address above, albeit the link works fine, and the link directs to a page where Mr. Browning's name is correctly spelled").

<sup>50</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>51</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>52</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

<sup>53</sup> Henry Grow, http://en.wikipedia.org/wiki/Henry\_Grow , accessed on August 13, 2014.

<sup>54</sup> Esshom, Frank, "Pioneers and Prominent Men of Utah", Utah Pioneers Book Publishing Company, 1913, page 903.

<sup>55</sup> "David J. Whittaker: The Philadelphia Pennsylvania Branch: Its Early History and Records" (David J. Whittaker, Curator of Nineteenth Century Western and Mormon Manuscripts, L. Tom Perry Special Collections, Harold B. Lee Library, and Associate Professor, Department of History, Brigham Young University).

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## 1855

Henry Grow, Jr. worked in the building of the two saw mills in Big Cottonwood known as B and A.  $^{56}$ 

# 1856

At the request of President Brigham Young, Henry Grow, Jr. moved a saw mill up City Creek seven miles from its previous location at Chase's Mill in the "Big Field." In the Fall of 1856, Henry Grow, Jr. framed Mill D at Big Cottonwood. After completion of Mill D, Henry Grow, Jr. sawed two logs and left on December 17, 1856. Henry Grow, Jr. and five men left the Mill D using snow shoes to traverse dangerous weather conditions including with seven feet of snow on the ground. It took them two days to get out of the snow, and the trek risked their lives. <sup>57 58</sup>

## 1857

Henry Grow, Jr. built a mill at the head of the Canyon, near Silver Lake (which is near the present day ski resorts of Alta, Snowbird and Brighton).<sup>59</sup>

## 1858

Henry Grow, Jr. built the suspension bridge over the Provo River.<sup>60</sup>

Henry Grow, Jr. went to Provo [Utah] and built all of the temporary buildings of the Church [of Jesus Christ of Latter-day Saints] leaders for an event known as the "Move".<sup>61 62</sup>

## 1859

Henry Grow, Jr. "tore the works out of the old grist mill at the mouth of Canyon Creek and placed the cotton and woolen machinery in the mill for President Young, which was the first machinery of the kind put up in the Territory; this machinery was afterwards taken down to St. George [Utah]."<sup>63</sup>

 $^{58}$  http://www.utahheritagefoundation.com/tours-and-events/heritage-awards/2009ha/item/242-chase-mill-salt-lake-city#.VEVpLRbp-\_g ; and http://www.tracyaviary.org/chasemill/

<sup>59</sup> Henry Grow, http://en.wikipedia.org/wiki/Henry\_Grow , accessed on August 13, 2014.

<sup>60</sup> Tullidge, Edward W., ""History of Salt Lake City"", Star Printing Company, 1886, pages 127-128.

<sup>61</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

<sup>62</sup> The "Move" occurred when the entire city of Salt Lake City, Utah moved to Provo, Utah to prevent any clashes when Johnston's army was entering Utah valley to suppress a supposed "uprising". After an agreement was reached, the army peacefully marched through Salt Lake City and camped 40 miles Southwest. People then returned to their homes. Source: http://www.historynet.com/utah-war-us-government-versus-mormon-settlers.htm

<sup>63</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

<sup>&</sup>lt;sup>56</sup> Henry Grow, http://en.wikipedia.org/wiki/Henry\_Grow , accessed on August 13, 2014.

<sup>&</sup>lt;sup>57</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, accessed on August 11, 2014 and October 27, 2014.

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1860s

"In the early 1860s, Brigham Young tapped Grow for what became Grow's largest and most famous construction, the dome of the Mormon Tabernacle. Young had become infatuated with the idea of constructing the Tabernacle in an elongated dome shape. When asked how large a roof he could construct using a Remington bridge-style lattice, Grow replied that it could be '100 feet wide and as long as is wanted.' In fact, Grow engineered the tabernacle roof to be 150 feet across and 250 feet long."<sup>64</sup> (emphasis added)

"Believing that the Saints could be strengthened spiritually if they had an adequate building where they could be called together and instructed by their leaders, President Young began planning for such a structure. Following several council meetings, a pattern for a great domeshaped house of worship stamped itself vividly upon the mind of President Young. <u>To make this</u> vision a reality, he called to his office Henry Grow, who was a master mechanic as well as an experienced millwright. Brigham Young had recently watched Henry Grow, Jr. complete a wooden arch bridge over the Jordan River—a rather unusual structure having no center supports, sustained wholly by fitting together wooden triangles and arches. President Young felt that it was just such a continuous bridge, or set of wooden bridges, that he needed to support the roof of the spacious, dome-shaped edifice that he had in mind."<sup>65</sup> (emphasis added)

"This unique Tabernacle was a marvel of its time. Through the bridge-building technique of **Henry Grow**, the Tabernacle roof was able to span its 150-foot width without center supports– an amazing achievement in both engineering and acoustics. Meetings and concerts are still held in this historic building."<sup>66</sup> (emphasis added)

"Henry's design of the roof based on his suspension bridge experience gives the building the unique look and sound quality it is so famous for."<sup>67</sup>

"In response to [President Brigham] Young's request to construct a lattice truss roof, Grow is reported to have quipped, '<u>I can build a building 150 feet wide and as long as you want it to be</u>.""<sup>68</sup> (emphasis added)

Church historians Elwin Robison and Randall Dixon summarized the remarkable construction of the Tabernacle:

<sup>66</sup> http://www.visitsaltlake.com/group-tour-itineraries/pioneer-history/, accessed on August 4, 2014.

 ${}^{67} https://maps.google.com/maps/ms?msid=205747230749716134331.0004c36d5ee5e0fb4035c&msa=0&ie=UTF8&t=m&ll=40.742055,-111.814728&spn=0.312144,0.513611&z=10&source=embed&dg=feature$ 

 $^{68}$  History of the Tabernacle, http://www.mormonnewsroom.org/additional-resource/history-of-the-tabernacle , accessed on August 15, 2014.

<sup>&</sup>lt;sup>64</sup> Henry Grow, Jr., http://www.findagrave.com/cgi-bin/fg.cgi?page=gr&GRid=10359925

<sup>&</sup>lt;sup>65</sup> "Chapter Thirty-One: The Quest for Self-Sufficiency," Church History In The Fulness Of Times Student Manual, (2003), 393–405, https://www.lds.org/manual/church-history-in-the-fulness-of-times-student-manual/chapter-thirty-one-the-quest-for-self-sufficiency?lang=eng , accessed on August 15, 2014.

"The Tabernacle was built in an environment relatively poor in timber, iron and economic capital. Likewise, the men responsible for the design of the Tabernacle, Brigham Young, <u>Henry Grow</u>, William Folsom and Truman Angell, were relatively uneducated, at least in comparison to professional engineers and architects in North America and Europe. However, <u>whatever the Tabernacle designers lacked in formal</u> <u>schooling, they made up for with sound, practical experience, careful</u> <u>observation of the structures they had built and the driving vision of</u> <u>what they wanted to create</u>. The Tabernacle is a startlingly modern building for its time. Not based on any style of formal precedent, it anticipates the functionalism of early 20th-century architecture... It truly was entirely new, and unprecedented throughout the world."<sup>69</sup> (emphasis added)

"A carpenter by trade, Brigham Young's innovative 'turtle back' Tabernacle design may have been influenced by the great cathedrals he viewed during his missionary labors in England. His journal, according to [Richard G.] Oman [curator of acquisitions at the Museum of Church History and Art in Salt Lake City, Utah], recorded a three-day visit to London's St. Paul's Cathedral and another full day at Westminster Abbey. 'Brigham was fascinated with buildings and particularly those remarkable ceiling arches,' Oman added. Young also sent Angell on an architectural study Mission to England.<sup>70</sup>

#### 1860-1861

Henry Grow, Jr. built the suspension bridge using lattices across the Jordan River.<sup>71 72</sup>

#### 1862

Henry Grow, Jr. was commissioned to build the Salt Lake Theater, designed by Obed Taylor. He constructed a water wheel in the ditch, using it to hoist rock & lumber for the construction. He also indicated that he even fitted up the foot lights.<sup>73</sup>

#### April 6, 1863

"At the April 1863 conference, Daniel H. Wells, counselor to President Brigham Young, announced plans to build a new tabernacle 'that will comfortably seat some ten thousand people' (JD 10:139)."<sup>74 75</sup>

<sup>71</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128; and Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, November 6, 2014.

<sup>72</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>73</sup> Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, November 6, 2014.

<sup>74</sup> "Tabernacle, Salt Lake City," Paul L. Anderson, http://eom.byu.edu/index.php/Tabernacle,\_Salt\_Lake\_City, accessed on August 12, 2014

<sup>&</sup>lt;sup>69</sup> History of the Tabernacle, http://www.mormonnewsroom.org/additional-resource/history-of-the-tabernacle , accessed on August 15, 2014.

 $<sup>^{70}</sup>$  History of the Tabernacle, http://www.mormonnewsroom.org/additional-resource/history-of-the-tabernacle, accessed on August 15, 2014.

#### 1863-1864

Henry Grow, Jr. performed a great deal of work for "President Young at different places."<sup>76</sup>

#### Spring 1863

Ground is broken and construction began on "the Great Tabernacle."<sup>77</sup>

#### July 26, 1864

Construction on the Salt Lake Tabernacle was commenced with the laying of the cornerstone.<sup>78</sup>

#### 1865-1867

At the request of President Brigham Young, Henry Grow, Jr. designed the shape, planned, framed, and put up the Big Tabernacle.<sup>79</sup> "[T]he Tabernacle was built as a place for Church members to gather and hear the words of their leaders. Brigham Young directed the building should be designed so people could see and hear the speaker without impediment. To do this successfully, **bridge-building techniques** were used to construct the Tabernacle roof so that support pillars were not needed."<sup>80</sup> (emphasis added)

#### 1865-1867

During that same time, Henry Grow, Jr. was also asked to refurbish the interior of the Salt Lake Theater.<sup>81</sup>

#### September 1, 1865

Henry Grow, Jr. commenced work on the Salt Lake Tabernacle.<sup>82</sup>

#### August 1867

Henry Grow, Jr. completed work on the roof and scaffolding was removed from the roof.<sup>83</sup>

<sup>75</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>76</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.
<sup>77</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>78</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>79</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

 $^{80}$  The Tabernacle, Temple Square, http://www.templesquare.com/explore/tabernacle/ .

<sup>81</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128; and Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, November 6, 2014.

<sup>82</sup> "The New Tabernacle", Salt Lake Daily Telegraph, October 6, 1867.

#### October 2, 1867

"The scaffolding was taken down on Wednesday [October 2, 1867] without injury to any of the workmen. The single accident which occurred during the erection of the building resulted from carelessness, and was not fatal."<sup>84</sup>

#### October 6, 1867

Henry Grow, Jr. completed the main structure of the Large (Great) Tabernacle (today referred to as the Salt Lake City Tabernacle), and Brigham Young provided the Address and Prayer at the First Meeting in the Tabernacle.<sup>85</sup> The General Conference was held for the first time in the Tabernacle.<sup>86</sup>

Following are some excerpts of key statements regarding the Salt Lake City Tabernacle,

On April 3, 1971, according to the Deseret News,

"The Salt Lake Mormon Tabernacle received national attention this week [March 29, 1971] when it was designated as a national historic civil engineering landmark by the American Society of Civil Engineers."<sup>87</sup>

According to President N. Eldon Tanner<sup>88</sup>, Second Counselor in the First, Presidency,

"We are pleased that this building [Salt Lake Tabernacle] has been chosen and recognized as an outstanding engineering feat... We feel it is a great tribute to President Brigham Young and to those who worked with him in the planning and building of this great edifice [Salt Lake Tabernacle]."<sup>89</sup>

<sup>84</sup> "The New Tabernacle", Salt Lake Daily Telegraph, October 6, 1867.

<sup>85</sup> "Brigham Young, October 6, 1867", Address and Prayer at the First Meeting in the Tabernacle, http://history.lds.org/article/lost-sermons-brigham-young-tabernacle-dedication?lang=eng, accessed on August 13, 2014.

<sup>86</sup> "The Great Tabernacle: A Building of Purpose and Spirit - Based on historical research by Richard Oman, curator for the Tabernacle exhibit at the Museum of Church History and Art.", https://www.lds.org/ensign/2007/04/the-great-tabernacle-a-building-of-purpose-and-spirit?lang=eng

<sup>87</sup> "Tabernacle Is Named Engineering Landmark," By Stephen W. Gibson, Church News Staff Writer, Deseret News, April 3, 1971,

http://news.google.com/newspapers?nid=336&dat=19710403&id=J\_ZPAAAAIBAJ&sjid=PFUDAAAAIBAJ&pg=4866,863245

<sup>88</sup> "President N. Eldon Tanner Dies" https://www.lds.org/ensign/1983/01/president-n-eldon-tanner-dies?lang=eng , accessed on August 14, 2014.

<sup>89</sup> "Tabernacle Is Named Engineering Landmark," By Stephen W. Gibson, Church News Staff Writer, Deseret News, April 3, 1971,

<sup>&</sup>lt;sup>83</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

The Deseret News reported,

"<u>Construction was started in 1864 under the direction of</u> <u>Henry Grow, pioneer builder</u>. <u>The lumber, an estimated one</u> <u>million feet, was made pliable for the roof through steaming</u> <u>and then bent to shape</u>."<sup>90</sup> (emphasis added)

According to Mormon Tabernacle Choir,

"The Salt Lake Tabernacle is an architectural wonder. It was completed in 1867 and was engineered by Henry Grow, under the direction of Brigham Young, who was President of The Church of Jesus Christ of Latter-day Saints at the time. The roof is 150 feet across and 250 feet long, and the seating capacity is approximately 7,000, including the choir loft. <u>Architect Frank Lloyd Wright,</u> who built many famous buildings, including the Guggenheim in New York City, said the Tabernacle was 'one of the architectural masterpieces of the country and perhaps the world.""<sup>91</sup> (emphasis added)

According to Mormon Tabernacle Choir,

"Besides its unique architecture, the building is famous for its superior acoustics. At the time it was built, there were no amplifiers or electronics, and it was designed so that all who were in attendance could hear the speaker's voice. When the Tabernacle was remodeled in 2007, a *New York Times* article stated the following:" <sup>92</sup>

> "<u>The tabernacle's famed acoustics, which legend has it</u> <u>enabled a listener to a hear a pin drop from 250 feet</u> **away**, were measured before the renovation began,

modeled on computers and then assessed again recently,

http://news.google.com/newspapers?nid=336&dat=19710403&id=J\_ZPAAAAIBAJ&sjid=PFUDAAAAIBAJ&pg=4866,863245

<sup>90</sup> "Tabernacle Is Named Engineering Landmark," By Stephen W. Gibson, Church News Staff Writer, Deseret News, April 3, 1971,

http://news.google.com/newspapers?nid=336&dat=19710403&id=J\_ZPAAAAIBAJ&sjid=PFUDAAAAIBAJ&pg=4866,863245

<sup>91</sup> "The Remarkable Acoustics of the Salt Lake Tabernacle", Mormon Tabernacle Choir, The Church of Jesus Christ of The Latter-day Saints, http://www.mormontabernaclechoir.org/articles/acoustics-of-the-salt-lake-tabernacle?lang=eng

<sup>92</sup> "The Remarkable Acoustics of the Salt Lake Tabernacle", Mormon Tabernacle Choir, The Church of Jesus Christ of The Latter-day Saints, http://www.mormontabernaclechoir.org/articles/acoustics-of-the-salt-lake-tabernacle?lang=eng

said Roger P. Jackson, the project's lead architect. Mr. Jackson said he expected the building's enveloping sound would be preserved. 'Acoustics is a science and an art,' he said, 'but it's also guesswork. Anything you do has an impact.'"<sup>93</sup> ["After Two Years of Work, an Updated Tabernacle," Martin Stolz, April 2, 2007, http://www.nytimes.com/2007/04/02/us/02mormon.html?\_r =0 ] (emphasis added)

The Salt Lake Tabernacle is home to the world famous Mormon Tabernacle Choir. According to Mormon Tabernacle Choir,

"The Salt Lake Tabernacle is globally known as one of the most acoustically perfect structures in the world."<sup>94</sup>

According to Paul L. Anderson,

"This dome-shaped building [The Salt Lake City Tabernacle] on Temple Square in Salt Lake City is one of the most impressive achievements of Latter-day Saint architectural design and engineering skill. Since 1867, this unique pioneer structure has been the site of nearly all of the Church's General Conferences; addresses by prominent visitors, including several U.S. Presidents; and many significant cultural events. The site of weekly tabernacle choir broadcasts since 1929, it is renowned for its organ. The Salt Lake Tabernacle culminated Latter-day Saint pioneer efforts to construct a very large auditorium for important meetings<u>. On July</u> 28, 1847, Brigham Young designated Temple Square as the center of the new Latter-day Saint capital."<sup>95</sup> (emphasis added)

At the April 1863 conference, Daniel H. Wells, counselor to President Brigham Young, announced plans to build a new tabernacle "that will comfortably seat some ten thousand people" (JD 10:139). The construction of so large an auditorium in an isolated territory without railroad access to manufactured building materials was an extraordinary undertaking. Church architect William H. Folsom prepared the first plans under President Young's direction. The design called for a structure 150 feet wide and 250 feet long with semicircular ends and a peaked roof similar to that of the Old Tabernacle. The

<sup>&</sup>lt;sup>93</sup> "The Remarkable Acoustics of the Salt Lake Tabernacle", Mormon Tabernacle Choir, The Church of Jesus Christ of The Latter-day Saints, http://www.mormontabernaclechoir.org/articles/acoustics-of-the-salt-lake-tabernacle?lang=eng

<sup>&</sup>lt;sup>94</sup> "The Remarkable Acoustics of the Salt Lake Tabernacle", Mormon Tabernacle Choir, The Church of Jesus Christ of The Latter-day Saints, http://www.mormontabernaclechoir.org/articles/acoustics-of-the-salt-lake-tabernacle?lang=eng

<sup>&</sup>lt;sup>95</sup> "Tabernacle, Salt Lake City," Paul L. Anderson, http://eom.byu.edu/index.php/Tabernacle,\_Salt\_Lake\_City, accessed on August 12, 2014

cornerstone was laid July 26, 1864, and forty-four sandstone piers to support the roof were begun that year."<sup>96</sup>

According to Paul L. Anderson,

"The next year, President Young appointed an experienced bridge builder, Henry Grow, to superintend the construction. In consultation with the President, <u>Grow modified a type of lattice</u> <u>truss used in bridge construction into huge elliptical arches</u> <u>that spanned the entire width of the structure without</u> <u>intermediate supports, an innovation without parallel for a</u> <u>building of these dimensions</u>. The trusses were constructed of timbers pegged together with wooden dowels that were split and wedged at each end. Cracked timbers were wrapped with green rawhide, which contracted when dry and made a tight binding. When the building was completed, the roof structure was nine feet thick, and the plaster ceiling was 68 feet above the floor."<sup>97</sup> (emphasis added)

According to the Office of Archeology and Historic Preservation, State of Utah Survey, Under Direction of the National Park Service, the Engineering and Architecture Surveys housed at the Library of Congress state,

"The Church of Jesus Christ of The Latter-day Saints started construction of the Salt Lake City Tabernacle on July 26, 1864, and held its First Conference in the immense auditorium three years later. A balcony, added in 1870 completed the building."<sup>98</sup>

"Sometimes compared to the inverted ship's hull, the building is 250 feet long and 150 feet wide. The interior space is clear: there are no intermediate supports for the roof. Nine lattice arches on 12-foot centers span 132 feet between masonry piers in the center section. Smaller arches converging to the midpoints of the first and ninth spans complete the semi-circular ends of the building. Each arch consists of four small parallel timber ribs bent to shape of the arch and connected by a timber web to form a lattice truss 15 inches in width and 9 feet in depth. All connections are morticed, pinned and wedged. The truss is a three-centered arch, with a

<sup>&</sup>lt;sup>96</sup> "Tabernacle, Salt Lake City," Paul L. Anderson, http://eom.byu.edu/index.php/Tabernacle,\_Salt\_Lake\_City, accessed on August 12, 2014

<sup>&</sup>lt;sup>97</sup> "Tabernacle, Salt Lake City," Paul L. Anderson, http://eom.byu.edu/index.php/Tabernacle,\_Salt\_Lake\_City, accessed on August 12, 2014

<sup>&</sup>lt;sup>98</sup> Office of Archeology and Historic Preservation, State of Utah Survey, Under Direction of the National Park Service, United States Department of the Interior, Drawn By Robert J. McNair and Toni K. Ristau, Church of Jesus Christ of the Latter-day Saints: Salt Lake City Tabernacle 1864-1867, Temple Square, Salt Lake City, Record No. HAER UT-1, Historic American Engineering Record, Sheet 2 of 5.

shorter radius in the section nearest the piers. Sometime before construction was completed, long timber braces were added across the haunch of the arch and also across the top of the crown to prevent spreading."<sup>99</sup>

"Completed when Salt Lake City was still an isolated pioneer settlement, the Tabernacle remained the largest auditorium in the state [of Utah] for over a century. The building is the largest existing work of timber roof framing in the United States: and unparalleled demonstration of heavy timber construction, it remains in excellent condition today."<sup>100</sup>

On October 1, 2004, President Gordon B. Hinckley stated,

"<u>The Temple and the Tabernacle in my mind remind me of</u> two venerable old parents. The Temple the father, the <u>Tabernacle the mother. Parents of generations that have</u> followed, still standing and shedding light and understanding and knowledge and love, and I bow before them in reverent respect."<sup>101</sup> (emphasis added)

According to Richard Oman's historical research as the Curator for the Tabernacle exhibit at the Museum of Church History and Art,

"The story of the Tabernacle on Temple Square in Salt Lake City, Utah, is much like the story of the Latter-day Saint people. The Tabernacle was built under less than favorable circumstances through great sacrifice. <u>Understanding the Tabernacle's history</u> <u>can help Church members understand more of their own</u> <u>Church history and appreciate the marvel that is the Salt Lake</u> <u>Tabernacle</u>."<sup>102</sup> (emphasis added)

"The Tabernacle is a building of great purpose and spirit, and, like

<sup>&</sup>lt;sup>99</sup> Office of Archeology and Historic Preservation, State of Utah Survey, Under Direction of the National Park Service, United States Department of the Interior, Drawn By Robert J. McNair and Toni K. Ristau, Church of Jesus Christ of the Latter-day Saints: Salt Lake City Tabernacle 1864-1867, Temple Square, Salt Lake City, Record No. HAER UT-1, Historic American Engineering Record, Sheet 2 of 5.

<sup>&</sup>lt;sup>100</sup> Office of Archeology and Historic Preservation, State of Utah Survey, Under Direction of the National Park Service, United States Department of the Interior, Drawn By Robert J. McNair and Toni K. Ristau, Church of Jesus Christ of the Latter-day Saints: Salt Lake City Tabernacle 1864-1867, Temple Square, Salt Lake City, Record No. HAER UT-1, Historic American Engineering Record, Sheet 2 of 5.

<sup>&</sup>lt;sup>101</sup> "Tabernacle work order: 'Be careful'", By Heather May, The Salt Lake Tribune, October 2, 2004, http://archive.sltrib.com/story.php?ref=/utah/ci\_2421263

<sup>&</sup>lt;sup>102</sup> "The Great Tabernacle: A Building of Purpose and Spirit - Based on historical research by Richard Oman, curator for the Tabernacle exhibit at the Museum of Church History and Art.", https://www.lds.org/ensign/2007/04/the-great-tabernacle-a-building-of-purpose-and-spirit?lang=eng

the Saints who built it, it is strong. It has with stood the tests of time."  $^{103}\,$ 

In 2004, at the start of the Tabernacle's renovation, President Gordon B. Hinckley commented,

"I absolutely marvel at President Young's boldness in going forward with this project. Way out here in this then-remote wilderness, without steel, with their bare hands, very little in the way of resources, they determined to construct a building to accommodate their needs for assembly and to dream of such a building as this -- unique and different from anything that I've seen anywhere in this world."<sup>104</sup>

According to President Gordon B. Hinckley,

"<u>To me it is a miracle building. I think of the skill of those who</u> <u>designed it and know that there must have been great</u> <u>inspiration behind that skill</u>. I think of faith as I reflect on the time and circumstance of its construction. It is truly a tabernacle, built in the wilderness from which the voice of the servants of the Lord should go forth to the world."<sup>105</sup> (emphasis added)

## 1868

President Young called on Henry Grow, Jr. to build the Zion's Cooperative Mercantile Institution (ZCMI)<sup>106</sup> building; the plan was designed by Obed Taylor and Mr. Grow served as the construction superintendent.<sup>107</sup>

# 1868-1876

Henry Grow, Jr. served as "<u>Superintendent of Temple Block and was in charge of all of the</u> <u>carpentry work on Temple Block</u>.<sup>108</sup> (emphasis added)

<sup>103</sup> "The Great Tabernacle: A Building of Purpose and Spirit - Based on historical research by Richard Oman, curator for the Tabernacle exhibit at the Museum of Church History and Art.", https://www.lds.org/ensign/2007/04/the-great-tabernacle-a-building-of-purpose-and-spirit?lang=eng

<sup>104</sup> "The Great Tabernacle: A Building of Purpose and Spirit - Based on historical research by Richard Oman, curator for the Tabernacle exhibit at the Museum of Church History and Art.", https://www.lds.org/ensign/2007/04/the-great-tabernacle-a-building-of-purpose-and-spirit?lang=eng, <u>and</u> Source: "Tabernacle renovation press briefing, Oct. 1, 2004, newsroom.lds.org"

<sup>105</sup> "The Great Tabernacle: A Building of Purpose and Spirit - Based on historical research by Richard Oman, curator for the Tabernacle exhibit at the Museum of Church History and Art.", https://www.lds.org/ensign/2007/04/the-great-tabernacle-a-building-of-purpose-and-spirit?lang=eng, <u>and</u> Source: President Gordon B. Hinckley, "Building Your Tabernacle," Ensign, Nov. 1992, 51.

<sup>106</sup> "In 1868 President Young established an economic system known as Zion's Cooperative Mercantile Institution. The purpose of ZCMI, as it was popularly known, was to bring goods to the territory, sell them as inexpensively as they could possibly be sold, and 'let the profits be divided with the people at large.'' Source: "Chapter Thirty-One: The Quest for Self-Sufficiency", Church History In The Fulness Of Times Student Manual, (2003), 393405 https://www.lds.org/manual/church-history-in-the-fulness-of-times-student-manual/chapter-thirty-one-the-quest-for-self-sufficiency?lang=eng , accessed on August 13, 2014.

<sup>107</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

#### May 10, 1869

The Transcontinental Railroad was completed.<sup>109</sup>

#### November 8, 1869

Construction on the Tabernacle Gallery (balcony) was commenced.<sup>110</sup>

#### 1870

Henry Grow, Jr. was elected as a Commissioner of the Jordan Irrigation Company.<sup>111</sup>

Henry Grow, Jr. was elected to become a City Councilman under Mayor Daniel H. Wells. He served until 1876.<sup>112</sup>

#### **April 1870**

Construction was completed on Tabernacle gallery.<sup>113</sup>

#### Early 1870s

Henry Grow, Jr. designed and built the hoisting equipment for lifting the granite blocks for the Salt Lake Temple.<sup>114</sup>

#### 1872

Henry Grow, Jr. superintended the carpentry done for the [Salt Lake] City Water Works.<sup>115</sup>

#### 1873

On November 12, 1873, "the covering of the walls of the Temple for the winter was commenced under the supervision of Mr. Henry Grow, the rock laying work having terminated for the season."<sup>116</sup>

<sup>108</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

<sup>109</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>110</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>111</sup> Deseret News, April 6, 1870.

<sup>112</sup> Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, November 6, 2014.

<sup>113</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>114</sup> Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, August 20, 2014.

<sup>115</sup> Deseret News, June 12, 1872.

Mrs. Henry Grow, Jr. returned to Salt Lake City on November 10, 1873 from a visit to her relatives and friends in Philadelphia. "She was absent four or five months, and enjoyed a pleasant time."<sup>117</sup>

Henry Grow, Jr. supervised the reshingling of the University Building roof.<sup>118</sup>

#### July 4, 1873

"The Tabernacle Choir performed inside the building [Great Tabernacle] for the first time."<sup>119</sup>

#### 1873 to 1878 (or 1880)

Henry Grow, Jr. built a temporary protective roof over the walls of the Salt Lake Temple each Winter until the walls were too tall.<sup>120</sup>

#### 1874

Henry Grow, Jr. supervised the improvements to the Warm Springs Bath House.<sup>121</sup>

#### 1875

Brigham Young Academy was started, and it later became known as Brigham Young University.<sup>122</sup>

#### October 9, 1875

The Great Tabernacle was completed in early October 1875<sup>123</sup>, and it was dedicated at a general conference by President John Taylor<sup>124</sup>,

<sup>116</sup> Deseret News, November 12, 1873.

<sup>117</sup> Deseret News, November 12, 1873.

<sup>118</sup> Deseret News, November 26, 1873.

<sup>119</sup> "The Great Tabernacle: A Building of Purpose and Spirit - Based on historical research by Richard Oman, curator for the Tabernacle exhibit at the Museum of Church History and Art.", https://www.lds.org/ensign/2007/04/the-great-tabernacle-a-building-of-purpose-and-spirit?lang=eng

<sup>120</sup> Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, August 20, 2014.

<sup>121</sup> Deseret News, September 16, 1874.

<sup>122</sup> "Chapter Thirty-Four: An Era of Reconciliation, Church History In The Fulness Of Times Student, Manual, (2003), 435–450", https://www.lds.org/manual/print/church-history-in-the-fulness-of-times-student-manual/chapter-thirty-four-an-era-of-reconciliation?lang=eng , accessed on August 13, 2014.

<sup>123</sup> "The Great Tabernacle: A Building of Purpose and Spirit - Based on historical research by Richard Oman, curator for the Tabernacle exhibit at the Museum of Church History and Art.", https://www.lds.org/ensign/2007/04/the-great-tabernacle-a-building-of-purpose-and-spirit?lang=eng

<sup>124</sup> Third President of The Church of Jesus Christ of Latter-day Saints, https://www.lds.org/manual/presidents-of-the-church-teacher-manual-religion-345/john-taylor-third-president-of-the-church?lang=eng

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"We thank thee, O God, that we have been permitted to build this godly Tabernacle, <u>beneath whose spacious dome so many of thy Saints are</u> <u>enabled to congregate</u>... We also dedicate the timbers of the arches which sustain the roof and of the girders and braces thereof which rest thereon, together with all the timber, ties and fastenings, the cornice, the sheeting, the shingles and other covering, the nails, bolts and straps of iron, of copper, and the brass, the zinc, the tin, and the solder wherewith the metal is soldered together, as well as the covering of paint which surmounts the hole to preserve it from the weather, and all material whatsoever that is used in the construction thereof... And we now humbly dedicate unto thee the whole of this Tabernacle, both within and without, <u>from the floor to the ceiling, and from the foundations thereof to the summit of the dome...</u>"<sup>125</sup> (emphasis added)

## October, 1876

Henry Grow, Jr. was appointed for a Mission to preside over Pennsylvania, Delaware, and Maryland.<sup>126</sup>

#### November 1, 1876

Henry Grow, Jr. left Salt Lake City, Utah for Philadelphia, Pennsylvania. Henry Grow, Jr. stayed in Philadelphia during the Mission and visited family and the Grow Family Ancestral Home ("Fairview Summit Farm") in the 1400 block of Flat Rock Road in Narberth (Penn Valley), Pennsylvania.<sup>127</sup> The trip took about two weeks by rail, compared to the months of travel time required to get to Salt Lake City from Iowa some 25 years earlier, circa 1851.<sup>128</sup>

Interestingly, as the United States as celebrating its Centennial - America's 100<sup>th</sup> birthday - Henry Grow, Jr. came back to Philadelphia (Narberth, Penn Valley) for his Mission.

"From 1876 to 1877 Grow served a mission for the LDS Church in Maryland, Delaware, and Pennsylvania where he was able to visit old relatives."<sup>129</sup>

## June 12, 1877

<sup>&</sup>lt;sup>125</sup> "The New Tabernacle Dedication Prayer, Read by Elder John Taylor during Conference, Mormon Service, Salt Lake City, October 9<sup>th</sup>, 1875", The Deseret News, No. 38, Vol. XXIV., October 20, 1875.

<sup>&</sup>lt;sup>126</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>&</sup>lt;sup>127</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128. The Grow Family Ancestral Home was also known as the "Fairview Summit Farm" since it was a working farm. Elizabeth Grow, the sixth child of Henry Grow, Sr. (and Henry Grow, Jr.'s sister) married Benjamin Lentz on March 14, 1837. At some point, Elizabeth inherited the original Grow Family Ancestral Home at 1400 block of Flat Rock Road in Narberth, Pennsylvania; it was owned and operated by the Lentz family until sometime in the early 1900s. As of 1908, the Benjamin Lentz Estate was listed as the owner of the 54 acre Fairview Summit Farm at 1400 block of Flat Rock Road according to the Pennsylvania Railroad Map, "Atlas Main Line Pennsylvania R.R. from Overbrook to Paoli", Plate 6, Copyrighted 1908 by A. H. Mueller.

<sup>&</sup>lt;sup>128</sup> Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, November 6, 2014.

<sup>&</sup>lt;sup>129</sup> Henry Grow, Jr., http://www.findagrave.com/cgi-bin/fg.cgi?page=gr&GRid=10359925, accessed on July 22, 2014.

Henry Grow, Jr. completed his Mission, and he left Philadelphia, Pennsylvania to return to Salt Lake City, Utah.<sup>130</sup>

## August 1877

An announcement was made to dismantle Adobe Tabernacle and replace it with Assembly Hall.<sup>131</sup>

## 1877-1878

After returning to Salt Lake City from his Mission, Henry Grow, Jr. tore down the old Tabernacle and started building the Assembly Hall, superintending the work under architect Obed Taylor.<sup>132</sup> Assembly Hall was completed in the fall of 1878.<sup>133</sup> "On the southwest corner of Temple Square is the Assembly Hall, a charming Gothic-style building with lovely stained-glass windows. This jewel of a building was constructed by Latter-day Saints between 1877 and 1882."<sup>134</sup>

## September 2, 1879

Brigham Young's funeral was held in the Tabernacle.<sup>135</sup>

## 1880

"In 1880, [Henry] Grow [Jr.] was called by President [John] Taylor<sup>136</sup> to go east and look at improvements of paper mills, for the purpose of putting up a new paper mill at the mouth of Big Cottonwood Canyon [in the Wasatch Range 12 miles southeast of Salt Lake City, Utah]."<sup>137</sup>

Henry Grow, Jr. came through Philadelphia, Pennsylvania while studying paper mills in order to construct a paper mill in Salt Lake City, Utah.<sup>138</sup> Henry Grow, Jr. likely stayed at the Grow

<sup>132</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>133</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

<sup>134</sup> "Assembly Hall, Historic Sites, The Church of Jesus Christ of Latter-day Saints. https://www.lds.org/locations/assembly-hall?lang=eng, accessed on August 4, 2014.

<sup>135</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>136</sup> Third President of The Church of Jesus Christ of Latter-day Saints, https://www.lds.org/manual/presidents-of-the-church-teacher-manual-religion-345/john-taylor-third-president-of-the-church?lang=eng

<sup>137</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

<sup>138</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>&</sup>lt;sup>130</sup> Tullidge, Edward W., "History of Salt Lake City", Star Printing Company, 1886, pages 127-128.

<sup>&</sup>lt;sup>131</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

Family Ancestral Home in Narberth (Penn Valley), Pennsylvania and he also travelled to many cities including Albany, New York; Boston, Massachusetts; Buffalo, New York; Chicago, Illinois; Holyoke, Massachusetts; Pittsburgh, Pennsylvania; and Springfield, Massachusetts.<sup>139</sup>

## 1880s

Henry Grow Jr. commenced work on the Cottonwood Paper Mill (also known as the Deseret Paper Mill<sup>140</sup>).

## 1883

Henry Grow, Jr. completed work on the Cottonwood Paper Mill.

## 1883-1887

Henry Grow, Jr. was in charge of carpentry work for the interior of the Salt Lake Temple.<sup>141</sup>

## 1884

Gas lighting and heat first used in Tabernacle.<sup>142</sup>

#### November 4, 1891

Henry Grow, Jr. died in Salt Lake City, Utah.<sup>143</sup>

The Ogden Standard entitled his obituary as "A Pioneer Gone" and wrote:

"Henry Grow, whose death occurred on the 4th inst. in Salt Lake City, and who was buried on Friday, the 6<sup>th</sup>, was well-known in this City and throughout the Territory. <u>He [Grow Jr.] came to Utah with the</u> <u>Pioneers and for many years was superintendent of the church</u> <u>buildings in Salt Lake. It was in this position he made a host of</u> <u>acquaintances and friends: for thousands who came to this country</u> <u>from foreign lands, and who are now the owners of prosperous homes</u> <u>in various parts of the Territory, performed their first day's work in</u> <u>America under his direction. He was a gentle taskmaster, and all his</u>

<sup>140</sup> "The Deseret News (www.deseretnews.com) is the first news organization and the longest continuouslyoperating business in the state of Utah. Owned by The Church of Jesus Christ of Latter-day Saints, The Deseret News offers news, information, commentary, and analysis from an award-winning and experienced team of reporters, editors, columnists, and bloggers. Its mission is to be a leading news brand for faith and family oriented audiences in Utah and around the world." Source: Deseret News, About Us, http://www.deseretnews.com/aboutus#about, accessed on August 13, 2014.

<sup>141</sup> Email from Dean Grow, family historian of Henry Grow, Jr. (HenryGrowFamily.org), to Jonathan Bari, August 20, 2014.

<sup>142</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>143</sup> "Henry Grow, Jr." Find A Grave. http://www.findagrave.com/cgi-bin/fg.cgi?page=gr&GRid=10359925 , Accessed July 18, 2014.

<sup>&</sup>lt;sup>139</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

men loved him. No better evidence of this could be adduced than was furnished in the addresses at his funeral, most of them from old associates and fellow-workmen who spoke of him in terms of the warmest affection. Though born in 1817 he wore his years well, and no one who saw him in Ogden less than two weeks ago would have believed he was so near his end. His death was totally unexpected, and those of his sons who live in Ogden and Huntsville were not aware of the serious nature of his illness until they received the announcement of his demise."<sup>144</sup> (emphasis added)

# Henry Grow, Jr. Tombstone<sup>145</sup>

Salt Lake City Cemetery in Salt Lake City, Utah Plot: H 10 6 1W



<sup>&</sup>lt;sup>144</sup> Grow, Henry Jr., "A Pioneer Gone", Obituary, Ogden Standard, November 12, 1891.

 $<sup>^{145}\</sup> http://www.findagrave.com/cgi-bin/fg.cgi?page=gr\&GRid=10359925\ ,\ photo\ added\ by\ Carl\ W.\ McBrayer.$ 

## "They, the Builders of the Nation" - Hymn

As Scott C. Esplin explained, "To those pioneer builders and their magnificent monument of faith, I express my grateful appreciation:"<sup>146</sup>

"They, the builders of the nation, Blazing trails along the way; Stepping-stones for generations Were their deeds of every day. Building new and firm foundations, Pushing on the wild frontier, Forging onward, ever onward, Blessed, honored Pioneer!"<sup>147</sup>

## The Henry Grow, Jr. Family – Modern Day

There are thousands of descendants of Henry Grow, Jr. who share a strong common bond with each other. For example, on July 27-28, 2012, there were over 3,000 family members in attendance for the Grow Family Reunion in Salt Lake City, Utah. On August 6, 2012, according to the Deseret News,

"About 3,000 people gathered on Temple Square recently as part of a large-scale family reunion for the descendants of Henry Grow, a noted Salt Lake Valley architect in the mid-1800s. Grow is best known for designing and constructing the roof of the Salt Lake City Tabernacle on Temple Square. Originally a bridge builder for the railroad in Pennsylvania, Grow used trusses to construct a roof without interior pillars, as Brigham Young had requested. Grow had five wives and left a large posterity."<sup>148</sup>

According to the Henry Grow Family Association, there are 7,987 members of the extended Henry Grow, Jr. family comprising 4,990 families who are living in 2016.<sup>149</sup>

According to Dean Grow, Marlin K. Jensen was a General Authority of the Church and Church Historian until reaching emeritus status at age 70. Mr. Jensen is now President of the Henry Grow Family Association. C. Scott Grow is currently a General Authority of The Church and is an honorary Vice President of the Henry Grow Family Association.<sup>150</sup>

<sup>&</sup>lt;sup>146</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/acknowledgments .

<sup>&</sup>lt;sup>147</sup> Hymn, "They, The Builders of the Nation," https://www.lds.org/music/library/hymns/they-the-builders-of-the-nation?lang=eng

<sup>&</sup>lt;sup>148</sup> "Three thousand people attend Henry Grow reunion", By Jessica Henrie, Deseret News, August 6, 2012, http://www.deseretnews.com/article/print/865560068/Three-thousand-people-attend-Henry-Grow-reunion.html

<sup>&</sup>lt;sup>149</sup> Henry Grow Family Association, http://www.henrygrowfamily.org/statistics.php , accessed on January 9, 2016.

<sup>&</sup>lt;sup>150</sup> Email from Dean Grow, family historian and Vice President of the Henry Grow Family Association, November 6, 2015.

Marlin K. Jensen and C. Scott Grow are both descended through Henry Grow Jr.'s 5<sup>th</sup> child with Mary Moyer, John Wood Grow, who settled in Huntsville, Utah. John Wood Grow was their great-grandfather. John Wood Grow was a six year younger brother to Dean Grow's great-grandfather, William Moyer Grow. Dean Grow, Marlin K. Jensen and C. Scott Grow all have descended through Mary Moyer Grow, who was born 1817 in the Germantown section of Philadelphia, Pennsylvania. According to Dean Grow, Mary Grow was probably also at the ancestral home of Henry Grow, Jr. quite often after her marriage to Henry Grow, Jr. in 1837, until they departed Pennsylvania in 1842. Henry Grow, Jr. and Mary Grow may have even lived at 1400 block of Flat Rock Road in Narberth (Penn Valley) for a while during the first part of their marriage.<sup>151</sup>

## Author's Note by Jonathan Bari

As a co-founder and President of The Constitutional Walking Tour of Philadelphia, which provides guided tours of America's Birthplace at Independence National Historical Park (including the Liberty Bell, Independence Hall, etc.), I am quite interested in American history. To that end, after my wife and I purchased our "new" home in Penn Valley, Pennsylvania, we started researching the history of our home which dates back to at least 1807. We have been intrigued to learn that Henry Grow, Jr. grew up in our house, and that Henry Grow, Jr. became one of the pioneer builders of many important buildings for The Church of Jesus Christ of Latterday Saints, including the Salt Lake City Tabernacle, Social Hall and Assembly Hall.

The more research that we have done on Henry Grow, Jr., the more fascinated we have became with this great man and his lasting legacy which has continued to bless the lives of millions of people, both during his lifetime (1817-1891) and thereafter. From our perspective, Henry Grow, Jr. personified American and Mormon values including family, spirituality, patriotism, hard work, ingenuity, resilience and success. Henry Grow, Jr.'s accomplishments suggest that he felt that he was doing God's work and that he selflessly supported the Mormon faith, including in his role as the "Superintendent of Temple Block".<sup>152</sup> Our research has shown that Mormons are pioneers by religion, and Henry Grow, Jr. epitomized this pioneer spirit. According to Jennifer Lund, Director, Historic Sites Division at the Church History Department,

"... Temple Square, does not always appear on lists of historic sites, but there can be no doubt that it encompasses <u>the most historically and</u> <u>theologically significant space</u> in Salt Lake City and perhaps in the entire Church."<sup>153</sup> (emphasis added)

<sup>153</sup> "B. H. Roberts, "A Comprehensive History of the Church of Jesus Christ of Latter-day Saints" (1957; repr., Provo, UT: Brigham Young University, 1965), 6:426–31; Steven L. Olsen, "Museums and Historic Sites of Mormonism," in "Mormon Americana: A Guide to Sources and Collections in the United States", ed. David J. Whitaker (Provo, UT: BYU Studies, 1995), 523–37. Temple Square does appear on lists of historic sites in the following: Richard H. Jackson, "Historical Sites," in "Encyclopedia of Mormonism", ed. Daniel H. Ludlow (New York: Macmillan, 1992), 2:592–95; T. Jeffery Cottle and Richard Neitzel Holzapfel, "Historical Sites," in "Encyclopedia of Latter-day Saint History", ed. Arnold K. Garr, Donald Q. Cannon, and Richard O. Cowan (Salt Lake City: Deseret Book, 2000), 502–4." <u>and</u> Source: Joseph F. Smith and the Origins of the Church Historic Sites Program, By Jennifer L. Lund,

<sup>&</sup>lt;sup>151</sup> Email from Dean Grow, family historian and Vice President of the Henry Grow Family Association, November 6, 2015.

<sup>&</sup>lt;sup>152</sup> Henry Grow, Jr. FamilySearch, Intellectual Reserve, Inc., A service provided by The Church of Jesus Christ of Latter-day Saints, https://familysearch.org/photos/stories/4740275, access on August 11, 2014.

While there have been millions of beneficiaries -- including people of all faiths -- of Henry Grow, Jr.'s work on behalf of The Church of Jesus Christ of Latter-day Saints, and Henry Grow Jr.'s projects have received widespread acclaim and recognition, it appears from our research that there is not much, if any, public recognition for the Superintendent of Temple Block (Square) himself as the architect, engineer and builder of the Salt Lake City Tabernacle. As such, in my outsider's opinion as a historian who has studied Henry Grow, Jr., I think that this humble Pioneer Builder appears to be the "unsung hero" of the Latter-day Saints.

To that end, LDS Living recently published a fascinating article featuring Henry Grow, Jr. entitled, "9 Incredible Pioneers You've Never Heard of".<sup>154</sup> While the Salt Lake City Tabernacle is so well known, including from architectural and engineering standpoints, I feel that Henry Grow, Jr. should be individually celebrated and recognized as the Pioneer Builder, as the "architect's architect" and as the "engineer's engineer".

In 2017, the Bicentennial of Henry Grow, Jr.'s birth and the sesquicentennial anniversary of the Salt Lake City Tabernacle provide an excellent opportunity to honor Henry Grow, Jr. as the pioneer builder so that visitors to Salt Lake City and Temple Square in particular can reconnect to the lives of pioneers and build a bridge to the past.

## **Special Thanks**

While there are many valuable resources reviewed in this research project and many have been quoted in this Timeline, the research contained herein was greatly assisted by Dean Grow<sup>155</sup>, family historian and Vice President of the Henry Grow Family Association, who has been an invaluable resource. The research herein was also assisted by using the Internet archives of The Church of Jesus Christ of Latter-day Saints, as well as research done by Stewart L. Grow<sup>156</sup>, Scott C. Esplin<sup>157</sup>, Richard Righter and the Lower Merion Historical Society in Pennsylvania.

<sup>155</sup> Dean Grow's 3<sup>rd</sup> cousins are C. Scott Grow and Marlin K. Jensen.

<sup>156</sup> Stewart L. Grow's 1947 Thesis, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake.

 $https://rsc.byu.edu/archived/joseph-f-smith-reflections-man-and-his-times/joseph-f-smith-and-origins-church-historic#\_edn15)$ 

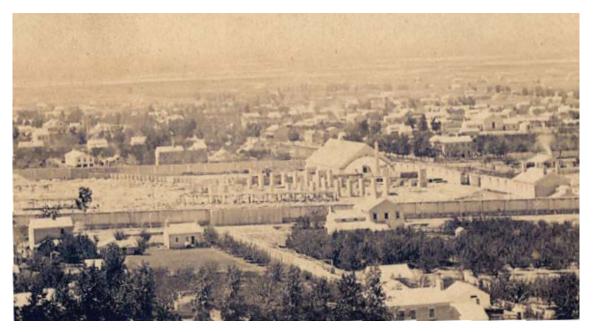
<sup>&</sup>lt;sup>154</sup> "9 Incredible Pioneers You've Never Heard of", Jannalee Rosner, LDS Living, July 25, 2016 http://www.ldsliving.com/9-Incredible-Pioneers-You-ve-Never-Heard-of/s/82686

<sup>&</sup>lt;sup>157</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 11-63, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/introduction

## Photos of the Salt Lake City Tabernacle

# Salt Lake City Tabernacle - Construction

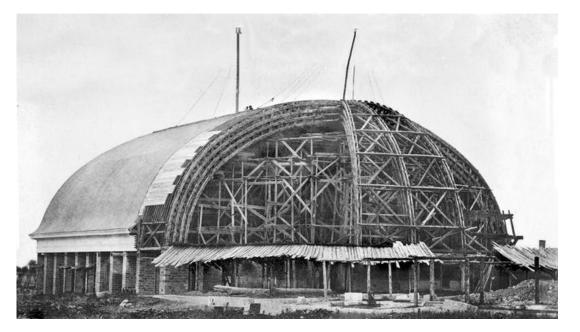
"One of the first steps in building the Tabernacle was raising the forty-four stone piers that support the roof, which were completed during 1864."<sup>158</sup>



<sup>&</sup>lt;sup>158</sup> Stewart L. Grow's 1947 Thesis, 5. Construction of the Great Tabernacle, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, http://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-4, accessed on August 13, 2014.

# Salt Lake City Tabernacle - Timber Roof Construction

"The two ends of the roof were composed of several half-arches that met in the middle, supporting each other. This minimized the weight of the roof and thus the load that the arches had to bear."<sup>159</sup>



<sup>&</sup>lt;sup>159</sup> Stewart L. Grow's 1947 Thesis, 5. Construction of the Great Tabernacle, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, http://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-4, accessed on August 13, 2014.

## Salt Lake City Tabernacle - Timber Roof Construction

"[Stewart L.] Grow remarks, 'At each point where the timbers intersect, four holes were drilled and wooden pegs were driven through so that the pegs extended three inches on either side. The ends of the pegs were then split with wooden wedges, which were permanently driven into the pegs and which secured them solidly' (original thesis, 74)."<sup>160</sup>



<sup>&</sup>lt;sup>160</sup> Stewart L. Grow's 1947 Thesis, 5. Construction of the Great Tabernacle, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, http://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-4, accessed on August 13, 2014.

## Salt Lake City Tabernacle - Construction

"The stacks of wood in the foreground are waiting to be applied to the Tabernacle as the covering of the roof is being finished."<sup>161</sup>



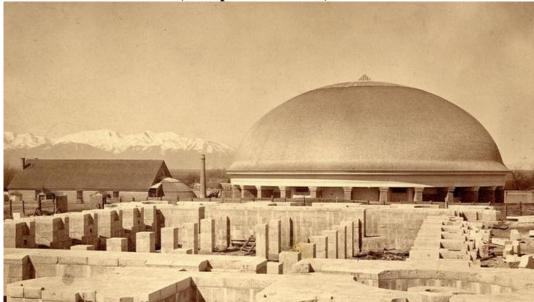
Salt Lake City Tabernacle – Early Construction<sup>162</sup>



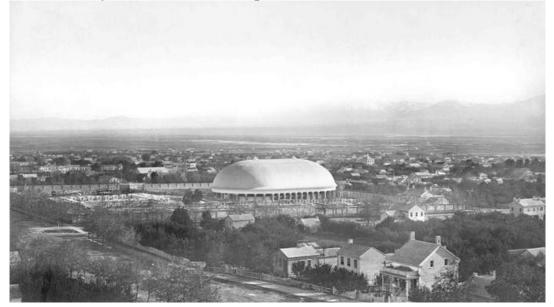
<sup>&</sup>lt;sup>161</sup> Stewart L. Grow's 1947 Thesis, 5. Construction of the Great Tabernacle, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, http://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-4, accessed on August 13, 2014.

<sup>&</sup>lt;sup>162</sup> "Salt Lake Tabernacle Reopens", The Church of Jesus Christ of Latter-day Saints, March 31, 2007, http://www.mormonnewsroom.org/article/salt-lake-tabernacle-reopens

Old and New Tabernacles, Temple Foundation, Circa 1870s<sup>163</sup>



Salt Lake City Tabernacle and Temple Block, 1873<sup>164</sup>



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<sup>&</sup>lt;sup>163</sup> "Salt Lake Tabernacle Reopens", The Church of Jesus Christ of Latter-day Saints, March 31, 2007, http://www.mormonnewsroom.org/article/salt-lake-tabernacle-reopens

<sup>&</sup>lt;sup>164</sup> "Salt Lake Tabernacle Reopens", The Church of Jesus Christ of Latter-day Saints, March 31, 2007, http://www.mormonnewsroom.org/article/salt-lake-tabernacle-reopens

Salt Lake City Tabernacle - Interior, Circa 1890s<sup>165</sup>



Birthplace and Ancestral Home of Henry Grow, Jr., Penn Valley, Pennsylvania (2016)



According to Jennifer Lund, Director, Historic Sites Division at the Church History Department, The Church of Jesus Christ of Latter-day Saints,

"The idea of sacred space is an ancient one. When the Lord spoke to Moses out of the burning bush, He commanded, 'Put off thy shoes from

<sup>165</sup> "Salt Lake Tabernacle Reopens", The Church of Jesus Christ of Latter-day Saints, March 31, 2007, http://www.mormonnewsroom.org/article/salt-lake-tabernacle-reopens <u>off thy feet, for the place whereon thou standest is holy ground</u>' (Exodus 3:5)."<sup>166</sup>

# For More Information:

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<sup>&</sup>lt;sup>166</sup> "Why Historic Sites? Sacred Places Help Us Remember God's Hand", Jenny Lund, June 10, 2014, https://history.lds.org/article/why-keep-historic-sites?lang=eng

## Appendix – Credit for the Design of the Great Tabernacle (also referred to as the "Mormon Tabernacle", "Big Tabernacle", "Salt Lake City Tabernacle", "New Tabernacle", "Tabernacle", etc.)

As this Timeline of Henry Grow, Jr., the Pioneer Builder and Unsung Hero of The Church of Jesus Christ of Latter-day Saints ("Timeline"), was being researched and written in 2014-2016, the author (Jonathan H. Bari) has become aware of some of the historical discussions, research, analyses and debates with regard to credit for the design of the Great Tabernacle (also referred to as the Large Tabernacle, Tabernacle, and the Salt Lake City Tabernacle as it is known today). Specifically, the information suggests that there have been debates over time regarding architectural credit for the Great Tabernacle being attributed to one or more of these three prominent pioneer architects for the Church: Truman O. Angell, William H. Folsom and Henry Grow, Jr. The primary focus of the Timeline's Appendix was on the Great Tabernacle and not meant to be a comprehensive study or assessment of the overall careers of Truman O. Angell, William H. Folsom and Henry Grow, Jr.

Similar to how Stewart Grow cautiously tried to "minimize the effects of family pride" in his exhaustive 1947 Masters Thesis on the Salt Lake Tabernacle, the author of this Timeline has tried to minimize the effects, if any, of the pride of owning the ancestral home of Henry Grow, Jr. As Scott C. Esplin wrote in 2007, there was a "[n]eed for further study. Though [Stewart] Grow's [1947] thesis provides an important starting point, additional study can be done regarding the Salt Lake Tabernacle."<sup>167</sup> The author of this Timeline set out to research and chronicle Henry Grow, Jr.'s life, including with his work on the Great Tabernacle, and to that end, it seems appropriate to at least include some discussion on the author's findings regarding the Great Tabernacle and credit for its design. Specifically, the author of this Timeline has reviewed many sources, including the research of Stewart Grow and Scott Esplin, and the author has highlighted herein some of his key findings herein.

As detailed in this Timeline, Brigham Young is credited with conceiving the concept for the Tabernacle. That said, the debate among scholars of the Salt Lake City Tabernacle and descendants of the architects has focused on the role of the architect(s). In addition to all of the historical documentation set forth in this Timeline about Henry Grow, Jr.'s accomplishments, Mr. Stewart Grow's research in 1947 revealed that while there were "original plans published under Mr. Folsom's name", "one will find considerable discrepancy" when "comparing those plans with the finished roof of the Tabernacle".<sup>168</sup> Further, Stewart Grow found that, "Mr. Folsom never claimed to be the architect of the Tabernacle" and "other than the mention of the Deseret News of 1865 [sic], none of the newspapers of the day give him credit for being its architect."

In contrast, Henry Grow, Jr. "claimed throughout his life to be the designer of the Tabernacle."<sup>169</sup> As seen at the beginning of this Timeline in the images and text, Henry Grow, Jr.'s business card proudly showcased an image of the "Large Tabernacle" and proclaimed,

<sup>&</sup>lt;sup>167</sup> Scott C. Esplin, Introduction to The Tabernacle: "An Old and Wonderful Friend" (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 11–63, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/introduction .

<sup>&</sup>lt;sup>168</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-8.

"Large Tabernacle - Was completed October, 1867, shape was designed by President Brigham Young. The architect that planned this building was Henry Grow, born in Philadelphia, Pennsylvania."<sup>170</sup>

According to Stewart Grow, "[t]he writers at the time of the building of the Tabernacle gave Mr. [Henry] Grow credit for its design. So did the contemporary historians. For example, on October 6, 1867, the Salt Lake Daily Telegraph newspaper reported,

"It seems proper, at the opening of the New Tabernacle, on the Temple Block, in this city, to furnish our readers with some particulars concerning its construction to give such items of its dimensions, etc., as we have been able to glean from a few of the brethren who have had the oversight of various departments of the work. **Brother Henry Grow, the designer and builder of the Tabernacle**, furnishes us with a large proportion of the following particulars."<sup>171</sup> (emphasis added)

"During the past six months, and for some time before that, Elder Truman O. Angel has been engaged in designing the cornice of the building, the stand, floor, seats, &c."<sup>172</sup>

On October 6, 1867, the Salt Lake Daily Telegraph wrote a rather lengthy and detailed article entitled "The New Tabernacle" which was about the design and construction of the Tabernacle. However, there was no mention at all of William Folsom in that newspaper account.

Another contemporary historical record exists with what the Deseret Evening News wrote [in September 1915]:"

"One of the most prominent and best known of pioneer builders, and especially remembered for the planning and construction of the tabernacle in this city, Henry Grow came to Utah in 1851.... In 1853 he built the first suspension bridge in Utah, across the Ogden river. Afterwards, during a long and busy life, the following important works may be placed to his credit: the old factory from which Sugar House ward takes its name, sawmills A, B, D, and E, in Cottonwood canyon, a sawmill seven miles up City Creek, woolen mill at the mouth of Parley's canyon, suspension bridges over the Provo, Jordan and Weber [Rivers], various mills for Prest. Young, the original ZCMI building, Assembly Hall, paper mill on

<sup>&</sup>lt;sup>169</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-andwonderful-friend/thesis-historical-study-construction-salt-lake-8 .<u>and</u> note that the only newspaper article "of the day" (circa 1860s) which mentioned William Folsom as the architect of the Great Tabernacle that Stewart Grow cited in his research was, "The New Tabernacle," Deseret News, June 3, 1863.

<sup>&</sup>lt;sup>170</sup> Source: Large Tabernacle. Call Number: M282.21 G884he 18-- no. 2. Identifier: M282.21 G884he 18-- no. 2, https://dcms.lds.org/delivery/Delivery/ManagerServlet?dps\_pid=IE4274424 , accessed on August 13, 2014.

<sup>&</sup>lt;sup>171</sup> "The New Tabernacle", Salt Lake Daily Telegraph, October 6, 1867.

<sup>&</sup>lt;sup>172</sup> "The New Tabernacle", Salt Lake Daily Telegraph, October 6, 1867.

Cottonwood, and, most enduring and conspicuous of all, the large tabernacle."  $^{173}$ 

Stewart Grow also cited the following in his 1947 Masters Thesis as evidence of credit being given to Henry Grow, Jr. for the design of the Great Tabernacle:

"Tullidge's *History of Salt Lake City*, published in 1886, contained the biographies of many of the men who had contributed to the building of Salt Lake City. In the biography of Henry Grow, the following is published: 'In 1865, the President called on him in regard to the construction of the Big Tabernacle. He designed the shape, planned, framed, put up and finished this Tabernacle in the fall of 1867. In 1868 the President called on him to put up the Z. C. M. I. building."<sup>174</sup> (emphasis added)

"Whitney's *History of Utah*, published in 1893, states: 'In October, 1867, was completed,—so far at least as to enable the general conference held that month to convene beneath its ample roof,—the famous Mormon Tabernacle at Salt Lake City. . . . <u>The architect of the Tabernacle, under</u> Brigham Young, was Henry Grow, who also had charge of its construction."<sup>175</sup> (emphasis added)

Additionally, as part of Stewart Grow's extensive research for his 1947 Masters Thesis, Stewart Grow interviewed Otto Grow and George Grow (Henry Grow, Jr.'s sons), and Stewart Grow reported the following:

"Otto Grow states that he has heard the stories of the building of the Tabernacle many times in his home and that so long as his father and mother lived <u>there was never any question that Henry Grow was the</u> <u>architect. One of the most vivid incidents he recalls hearing was that</u> <u>when Henry Grow was constructing the roof of the Tabernacle, Mr.</u> <u>Folsom would walk around and express his lack of confidence in the</u> <u>design by such comments as, 'When the props are taken out, it will</u>

<sup>&</sup>lt;sup>173</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-8 and Source: Our Gallery of Pioneers: Henry Grow," Deseret Evening News, September 11, 1915, 2..

<sup>&</sup>lt;sup>174</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-andwonderful-friend/thesis-historical-study-construction-salt-lake-8, <u>and</u> Source: Edward W. Tullidge, "Biographies," History of Salt Lake City, (Salt Lake City: Star, 1886), Biographies, 128.

<sup>&</sup>lt;sup>175</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-andwonderful-friend/thesis-historical-study-construction-salt-lake-8#\_edn15 and Source: Orson F. Whitney, History of Utah (Salt Lake City: George Q. Cannon and Sons, 1893), 2:179–80.

## fall and probably kill us all.' This sniping so irritated Mr. Grow that he asked President Young to ask Mr. Folsom to stay away from the Temple Block."<sup>176</sup> (emphasis added)

That said, William H. Folsom was an architect who was quite accomplished and built various buildings for the Church. Mr. Folsom's experience appears to have been in building "straight-line roofs" and not in building circular/domed roofs such as was used for the Great Tabernacle.<sup>177</sup> Further, the information suggests that the engineering expertise of a bridge builder such as Henry Grow, Jr. was needed to determine how many stone piers (forty-four) were needed and how large the stone piers had to be in order to support the roof pillars (which are massive in size), and only Henry Grow, Jr. had that insight and experience. The information further suggests that it would likely not have been possible to have the base of the Great Tabernacle designed by Mr. Folsom and then have Henry Grow, Jr. design a roof to just fit on that base. In other words, the design of the base was a function of the roof and not vice versa, and it was Henry Grow, Jr.'s unique engineering skills which enabled Brigham Young's vision for the Great Tabernacle come to fruition.

In 1861, William H. Folsom was named acting Church Architect in place of Truman O. Angell who was in poor health. Mr. Folsom served in this position until April 1867 when Mr. Angell replaced Mr. Folsom as Church Architect.<sup>178</sup> According to Stewart Grow's 1947 Masters Thesis,

"He [Mr. Folsom] was replaced by Mr. Angell in April 1867 just at the time the big drive started for the completion of the Tabernacle. At that time, the interior of the building had not been designed and the exterior was far from completion. Whether Mr. Folsom had taken any interest in the building of the Tabernacle prior to his being replaced is not sure, <u>but after he was replaced by Mr. Angell there is definite evidence that he was not connected with the completion of the Tabernacle. It hardly seems likely that if he were the architect of the building—supervising its erection, as architects do—he would leave the work right at its most crucial stage."<sup>179</sup> (emphasis added)</u>

<sup>&</sup>lt;sup>176</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-8.

<sup>&</sup>lt;sup>177</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-8.

<sup>&</sup>lt;sup>178</sup> By Scott C. Esplin, Time Line, in The Tabernacle: An Old and Wonderful Friend, ed. Scott C. Esplin (Provo, UT: Religious Studies Center, Brigham Young University, 2007), 19, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/timeline

<sup>&</sup>lt;sup>179</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-8.

In spite of Mr. Folsom not having any bridge building expertise, being replaced as Church Architect, leaving his "Church Architect" post right before the "big drive" to push for completion of the Great Tabernacle, warning of the collapse of the Tabernacle's roof based on the manners and methods employed by Henry Grow, Jr., and not being involved with the completion of the Tabernacle, there are still some who give credit to Mr. Folsom as being the architect of the Great Tabernacle.

For example, in 1947, Stewart Grow documented that there were still some who believe that Mr. Folsom should share credit for the design of the Tabernacle,

"Gordon B. Hinckley, as publicity official for the Church, indicated that, in his experience with publicity on the point, <u>a compromise had been</u> <u>reached in which it was indicated that Henry Grow and William</u> <u>Folsom cooperated on the design under the general instruction of</u> <u>Brigham Young. He added that so far as he knew there was no</u> <u>historical basis for the compromise but that it had been arrived at as a</u> <u>result of family pressure</u> and the lack of historical proof to the contrary." (emphasis added)<sup>180</sup>

The information suggests that "family pressure" between the families Henry Grow, Jr. and William H. Folsom carried the day in attributing credit to both Mr. Folsom and Henry Grow, Jr. as the architects of the Great Tabernacle, when the facts seem to state otherwise.

With regard to Truman Angell, on October 6, 1867, the Salt Lake Daily Telegraph newspaper reported,

"During the past six months, and for some time before that, Elder Truman O. Angel has been engaged in designing the cornice of the building, the stand, floor, seats, &c."<sup>181</sup>

With regard to Truman Angell, Stewart Grow also stated in his 1947 Masters Thesis,

"From his journal entries, it is evident that Truman O. Angell designed the interior of the building, including the stand, seating arrangement, doorways, stairways, and other finishing details."<sup>182</sup>

"It is the author's judgment that Henry Grow was the architect of the Tabernacle roof and exterior and that Truman O. Angell was architect of

<sup>&</sup>lt;sup>180</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-andwonderful-friend/thesis-historical-study-construction-salt-lake-8 and Gordon B. Hinckley, conversation with author [Stewart Grow, circa 1947].

<sup>&</sup>lt;sup>181</sup> "The New Tabernacle", Salt Lake Daily Telegraph, October 6, 1867.

<sup>&</sup>lt;sup>182</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-8.

the Tabernacle interior. Mr. Angell is seldom given any credit for work on the Tabernacle. It is hoped that this book may be the means of giving him some of the credit which is justly due."<sup>183</sup>

In the context of the information reviewed, coupled with the fact that the Great Tabernacle was built in the "wild frontier" era in the 1860s, the author believes it was Henry Grow, Jr.'s unique bridge building skills and experience that made the impossible possible with building the Great Tabernacle, and to that end, it was Henry Grow who architected and constructed one of engineering wonders of the world.

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<sup>&</sup>lt;sup>183</sup> Stewart L. Grow's 1947 Thesis, 9. Discussions, "A Historical Study of the Construction of the Salt Lake Tabernacle," Presented to the Faculty of the Department of History, Brigham Young University, in Partial Fulfillment of the Requirements for the Degree of Master of Arts, https://rsc.byu.edu/archived/tabernacle-old-and-wonderful-friend/thesis-historical-study-construction-salt-lake-8.