Dear Members

Spring has finally come to Truckee and with it, the building season! I have been busy at HPAC with various projects. The most dynamic one is on West River St. The gentleman who has purchased the old Montonyo property is in the process of working towards rehabilitation of the old cabins and at least two of the three houses.

The proposal for the cabins is to move them all to the front of the street and refurbish them. There will be a road alignment on Mill St. to West River St. to accommodate the new sidewalks. There is still talk of a park going in on the old County Corporation Yard Property.

This has led to discussions as to when the little cabins were moved onto that piece of property and where they were originally. ***Teaser Moment for you all.....future article for the newsletter!

I spoke with the representative for the Truckee Springs property again and it is still on their plate to donate the acreage where the old Ice Carnival and House (Glad-U-Kum) was located to the Historical Society. They are in the stages of zoning issues and hope to have that done soon. The ultimate goal for this property will be a historical park setting explaining that area. We have had discussions with the Cultural Council for the Washoe Tribe and they have indicated interest in being a part of the design efforts.

This will be quite a ways off as there is a lot of work that has to be done for the pond. Although it was created as an ice rink it has become a vernal pool after all these years and that is what we would like to maintain. It is the home for many birds and frogs and a watering hole for the deer, bears and other animals at this site.

One of our goals in this area is to create a committee that would have just the pond as its sole project.

President’s Corner article continued on p. 2

CALENDAR
Events will be posted online at our website at this link.

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Notice to Members

In 2015, the TDHS Board of Directors approved a change in membership renewal to reflect the Society's bi-annual renewal schedule - January or July. For specific details, please visit our website.

Recall too that starting in 2017, we will no longer be mailing out our Echoes From the Past Newsletter. Instead, the newsletter will be readily available online and accessible on a quarterly basis. If you are a TDHS member, an email will be sent to you advising you of the online issue's posting.

The last University of Nevada at Reno student who used our facility just graduated! Congratulations Leo!

(Above) Leo giving his presentation on Natural Ice production

President's Corner article continued on p. 3

Please get involved with your Truckee Donner Historical Society (TDHS). The only way we can offer programs and events is if YOU, as a volunteer, step up and get involved. TDHS is an all-volunteer, 501(c)(3) organization so any and all donations are gratefully appreciated and tax deductible. Our mailing address is Truckee Donner Historical Society, P.O. Box 893, Truckee, CA 96160.

TDHS does not accept responsibility for the accuracy of the information in these articles. TDHS retains the right to republish submitted material. Please contact TDHS for permission to use any content in this publication.
Several members of the Historical Society were lucky enough to help Leo with his field work at Boca. We learned a lot about what goes into the preservation and protection of an archaeological site.

I am very proud of the fine work being done at the society. We have met a wonderful group of people in the professional world as our reputation is spreading regarding the professionalism and work done at the society. We just purchased a professional photo scanner with funds from a donation so we can continue the work of documenting all the photos and paperwork and securing them for protection. We are always looking for people who can donate a few hours a week to help. It doesn't have to only be a Thursday as we have many collections that need to be documented and cataloged.

We are coming into our Old Jail Museum season and, of course, that means if you have a few hours on a Thursday night, or Saturday or Sunday we could certainly use the help. You don't have to be an expert as we (one of our experienced docent members, Patricia Featherstone) is making up information sheets for many of the items.

So, all in all, Truckee-Donner Historical Society has come pushing into the 21st Century with full force! Please come join us and share your stories.

The **Old Timers' Picnic** is set for **July 15** and that will also be a class reunion! It should be a lot of fun. Remember all it costs is for you to bring your lunch, camera and your stories.

May you all have a wonderful Summer. Respectfully, Chaun Mortier, President
Patents By Truckee Citizens
By Heidi Sproat
In April 2017, two volunteers associated with the Truckee-Donner Historical Society (“TDHS”), Barbara Czerwinski, Ph.D., and Heidi Sproat, submitted a NPS 10-900 application to the National Park Service nominating Truckee Veterans Memorial Building (“the Vets Hall”) and Rocking Stone Tower to the National Register of Historic Places. The submitted application was 68 pages and we are hopeful that we will hear something from the reviewing body by mid-summer.

While much attention in the history of our mountain town has been directed to the transcontinental railroad, the lumber and ice industries, Jibboom Street and prohibition, and the individuals who helped to bring to and sustain these industries in Truckee, we discovered so much more about one of the men who helped to get – and keep - Truckee on the map.

In the process of conducting research for this application, we discovered that Truckee’s own Charles Fayette McGlashan filed a number of patents with the U.S. Patents Office. McGlashan, 1847 – 1931, is Truckee’s patriarch, noted historian and authoritative author of the History of the Donner Party, entrepreneur, editor of the Truckee Republican, attorney, legislator, entomologist / lepidopterist, astronomer and inventor. McGlashan was a visionary for his time and pursued making Truckee a destination and not a pass-through ‘on-the-way-to-somewhere-else’ town. One of the ways he did this was by bringing winter sports to Truckee. And indeed, one of his patents was for an improved Ice Palace construction. For more additional information on McGlashan patents, visit Google and use the search terms "c f mcglashan patents".

The eight patents we were able to locate that McGlashan filed included those for guiding balloons, a railway balloon, a railroad telegraph, an improvement on the Roman catapult, the ice palace, snow shed construction, bird lure / collapsing bird feeder tray, and a spreading board for entomological specimens. What an array of inventions. Understanding patents can be a difficult process, but viewing drawings accompanying the patent applications is telling. By checking out the filing dates of McGlashan’s patents, the reader can see they span the years 1874 – 1930. In fact, McGlashan’s first patent was filed when he was only 27 years old.

The links below will take the reader to online images and information of the various patents McGlashan filed. For ease of reading, however, the website addresses for each of McGlashan's patents follows this article.

Guiding Balloons, # 152,145, patented June 16, 1874
Railway Balloon and Electric Tramway and Truck, # 247,571, patented September 27, 1881
Railway Train Telegraph, # 261,370, patented July 18, 1882
Show-case for Entomological and Other Specimens, # 380,762, patented April 10, 1888
Ice Palace, # 565,175, patented August 4, 1896
Snow shed construction, # US 620,244, patented February 28, 1899
Catapult for Throwing Projectiles, # 629,044, patented July 18, 1899
Spreading board for entomological specimens,
US #1172816, patented February 22, 1916 and
Bird Lure, # 1749497, patented March 4, 1930.

What was also surprising is, serendipitously, our own local Tahoe Silicon Mountain organization recently hosted a March 2017 presentation: “Fame, Fortune, and Exploitation: The Fascinating History of Patents and Patent Trolls”, by Patent Attorney Herbert R. (Dick) Schulze, Of Counsel, of the Reno firm of Holland & Hart, LLP (YouTube link of his presentation.) After some communications with Mr. Schulze, I discovered that there are quite a few even older patents (before 1976) from inventors who called their home Truckee. Besides McGlashan in the late 1800s and early 1900s inventing a gamut of devices, there are dozens of other inventors who hail from Truckee, California. Who knew?

Many Truckee inventors may have filed patents before 1976, but patents from 1790 through 1975 are searchable only by Patent Issue Date, Patent Number, and Current Classification. Because we do not know the patent numbers before 1976, we could not determine if the patent holders/filers claimed Truckee as their home. However, searching the patent database for Truckee patents, we did find some very interesting inventions.

Also by happenstance, the Historical Society had an article on a Truckee inventor who developed and patented a new fastener line for metal roofing and steel buildings. After this epic Tahoe winter of 2017, this should be a welcome fix for homeowners and businesses whose roofs may have been compromised

(2013 Sierra Sun article, Truckee inventor founds Weather-Tech fasteners.)

Searching the patents database (USPTO website search) we discovered that there are over 200 references to patents whose inventors may also be from Truckee. After examining the kinds of patents issued, it seems they generally fall into a few categories of process or utility in the medical, sports, computer, or building industries. They include a switching device, a specialized hammer, a process of task allocation in a computer network, navigating with a camera device, developing a stable high-speed utility vehicle, a fetal monitoring device and methods, a sports bottle, client-side encryption of form data, a bucket feeder for a ball projecting machine, and streaming of GIS data. Not unsurprisingly, I also discovered that one of our own Truckee orthopedics, Jeff Dodd, developed a weight-bearing lower extremity brace - and I am sure that sadly, some of our readers know what these devices are for. I also learned that a Truckee resident developed a liner for use with a breast pump, someone who developed a method and apparatus for controlling telephone calls using a computer assistant, a developer who created a portable power saw support attachment, a multi-purpose exerciser, a ski rack with easy loading, cleat for an endless track or tread of a surface vehicle, a hitch-mounted telescopic rack and method of use, a fetal monitoring device, an endoscope scope assembly. The list goes on. Take a look at the USPTO database and see what you can find.
The moral of this story is you never quite know where information will take you when you are looking for something else. When searching for McGlashan articles, I realized the importance of patents by Truckee inventors. This is what led me to research patents post McGlashan 1931. This is again another example of discovery on-the-fly.

**Website addresses/links to McGlashan Patents**


**Spreading board for entomological specimens**, Patent US # 1172816, filed May 5, 1915; patented Feb. 22, 1916;
For perspective, the first patent was issued on **July 31, 1790** to Samuel Hopkins for a process of making potash, an ingredient used in fertilizer. The patent was signed by President George Washington. Hopkins was born in Vermont, but was living in Philadelphia, Pennsylvania when the patent was granted. [Patent link](http://patft.uspto.gov/netahtml/PTO/sfpint.htm). The Alfred Nobel patent for gunpowder, # 50,617, is available at this link, patented October 24, 1865.

There are over 9 ½ MILLION patents filed as of 2017. The present patent numbering system began in 1832.

**References**


https://www.uspto.gov/patents-application-process/applying-online/patent-number

https://en.wikipedia.org/wiki/Patent_application


https://www.facebook.com/events/1348366475206928/

https://www.uspto.gov/patents-getting-started/general-information-concerning-patents#heading-3


Various newspapers.com, newspaperarchive.com, cdnc.ucr.edu archives articles

To search for patents before 1976, use this search site: http://patft.uspto.gov/netahtml/PTO/patimg.htm .

Also of note, on the back side of one of the butterfly exhibits in the Old Jail Museum, there is a reference to American Entomological Company. Here is the image of that 1914 reference.
Blasting the Summit Tunnel

By Karl Pape

In articles about the building of the Central Pacific Railroad ("CPRR"), references to blasting, particularly tunnels, are often noted. But, how do the various blasting methods work? It’s all dependent on expansion of volume.

The history of explosives used in tunneling is worth some explanation. There seems to be some question about the origin of the early explosives, particularly what was first called “black powder”.

The combination of powdered sulfur, charcoal, and saltpeter (potassium nitrate) to build explosives has been attributed to the Chinese in the 10th century.² Two of the byproducts of this mix was noise and light, particularly in fire crackers and rockets. These were used for celebrations and to scare away unwanted spirits. Later, the black powder was used in warfare for cannons and rockets.²

One of the early written theses on how to make and use black powder came from Roger Bacon (1214-1294), an English Friar.³

He used a similar formula as noted above in order to make what he termed thunder and lightning. The Church, believing only God could make thunder and lightning, promptly put him in prison for 10 years.⁴ After Bacon’s death, a more practical use of black powder was just about to be discovered … guns.

Beyond flash and bang, black powder increased in volume and with that increase came pressure. By placing black powder in a cylinder with one end blocked save a small hole for a fuse, then tamping the powder for compaction, and placing a projectile, usually a metal ball, at the top of the compacted powder, the stage was set for the invention of the gun. The powder was ignited through the fuse hole, pressure built up and the projectile launched. Black powder now became gun powder.⁵

The use of black powder, or blasting powder as it became known, served a fundamental role between the 1830s and 1850s in North America as an explosive and as an essential part of mining and engineering.⁶ The technology and safety imperatives were well understood by the 1860s when the CPRR began blasting tunnels through the Sierra Nevada Granodiorite (Granite).⁷

But, like many things, “one size doesn’t fit all”. The ratio of charcoal, sulfur and saltpeter was not a constant. By reducing the amount of saltpeter in the mix, the explosion would be more of a heaving motion which would be applicable in soft rock such as coal. Reducing saltpeter for the soft rock application was also a cost reduction as it was the most expensive part of the mix.⁸

The cost of saltpeter was also a factor in the blasting of the tunnels for the CPRR. Granodiorite is one of the hardest materials to tunnel through and the black powder used had to be rich in saltpeter, 75% of the volume. Saltpeter was being imported from Chile which also added to the cost. Blasting with black powder in the Summit Tunnel, or Tunnel 6, was both slow and expensive. Even with the vertical shaft that allowed four faces of blasting, a full gang of workers would advance...
only 2.51 feet per day. That, plus the increasing cost of black powder, from $2.50 per keg to $15.00 per keg, and the use of up to 500 kegs per day, made it a very expensive proposition. 9

On the positive side, the Chinese were familiar with using black powder in construction in China. However, a black powder blast also created toxic gases that had to be cleared before work could resume. 10

Both Crocker and Strobridge, the superintendents, decided that the new explosive, nitroglycerin, developed by Alfred Nobel, might be the answer to cost and speed. Nitroglycerin was five times more powerful by bulk than black powder and thirteen times more destructive. There was, however, a drawback: the end product was highly unstable. A shipment of nitroglycerin that ended up in the Wells Fargo Office in April 16, 1866 exploded. It obliterated the office and killed more than 15 people. 11

A chemist, James Howden, was hired to mix the components at the site of the Summit Tunnel, thus reducing the risk of premature explosion. Using nitroglycerin, progress was increased from 2.51 feet to 4.38 feet per day. Also contributing to the progress was reducing the diameter of the blasting holes from 2.5” to 1.25” and reducing the depth of the holes from 3 feet to 15 - 18 inches. Another benefit from using nitroglycerin was the relatively small amount of smoke and toxic gases after the explosion. 12

After his work at CPRR, Howden returned to San Francisco where he developed a stronger and safer explosive by absorbing the nitroglycerin into sugar, magnesium carbonate and potassium nitrate. 13

But curiously, the Summit Tunnel was the first and last use of nitroglycerin on the CPRR. Because of accidents, Strobridge and Crocker stopped using nitroglycerin after using it in the Summit Tunnel. 14

However, the Union Pacific used nitroglycerin in some tunnels, much to the protests of the tunnel men. Using “nitro”, the tunnels were constructed at a record eight feet a day. 15


3. The Royal Society Chemistry. Fireworks: Did You Know About Black Powder (N.D.)

4. The Royal Society Chemistry.

5. The Royal Society Chemistry.


Blasting article continued on p. 10
Deja Vu - What are the Odds?
By Heidi Sproat

While visiting Frederick, Maryland, recently, yes on the other side of our country, I happened to catch two highway signs on the road that looked way too familiar. The first was US 40, the second Historic National Road.

To read more about US 40 and how it used to run the length of the United States, please see this link. That's why the signs here in Truckee say "Historic" U.S. 40. Small world.

(Left) Also see https://goo.gl/zjqKsK or http://www.donnersummithistoricalsociety.org/PDFs/20mile/museum_signs/lincolnhighway.pdf

And speaking of a "small world," imagine my surprise when in Stavanger, Norway, of all places, in August 2016, at a restaurant known as Phileas Fogg, on the wall is the SAME Great Event Poster advertising the May 10, 1869 railroad crossing from Omaha to San Francisco in four days. Same photo in Stephen Ambrose's book, p. 192. Who knew?

Click on the above photo, right, for a larger image.
World War II Service – a Family Affair
By Heidi Sproat

In our last edition of Echoes, we reported on a recent letter donation made by the Waters family. The letter was dated 21 January 1943 to Mr. and Mrs. George B. Waters in appreciation of their five sons who had entered the armed forces of the U.S. during World War II. Edwin R. Waters AUS, Orlin O. Waters AUS, Erving D. Waters AUS, Roy F. Waters AUS, William G. Waters USNR. The letter was signed by Henry L. Stimson, 45th U.S. Secretary of War. A copy of this letter is to the right.

At the Memorial Day services held at Truckee Cemetery on Monday, May 29, Sharon Pace Arnold presented some background information on the Truckee Waters brothers.

Since the Waters donation, I received a mail solicitation for the Pacific Battleship Center which recounted the story of the five Sullivan brothers - Albert, Francis, George, Joseph, and Madison – how unbelievably and sadly, all five brothers perished off the shores of Guadalcanal in the Solomon Islands having been aboard the USS Juneau.

So imagine my surprise when this Editor also recently discovered that my own husband’s family had four brothers – Norman, Vincent, James, and Adam - who served in World War II. Amazingly, all four Donzanti brothers survived the war, and the veterans were meeting as often as they could in Florida.

The world is safer today because of these great warriors’ sacrifices and we cannot forget their bravery. Please remember our veterans on Memorial Day and every day. Were it not for them, many of us would not be here today.

Grave Markers for the Waters brothers, Truckee Cemetery, Memorial Day May 29, 2017

January 21, 1943

Dear Mr. and Mrs. Waters:

It is my privilege to express to you the appreciation felt by the War Department for the fact that five of your sons have entered the armed forces of the United States during the current war as follows:

Edwin R. Waters, AUS
Orlin O. Waters, AUS
Erving D. Waters, AUS
Roy F. Waters, AUS
William G. Waters, USNR

Such patriotic devotion must reflect the loyalty and patriotism which they have learned at home.

It is an honor for me to extend to you my commendation for the notable contribution you have made to your country’s cause.

Very sincerely,

Henry L. Stimson

Mr. and Mrs. George B. Waters,
Box 716,
Main Street,
Truckee, California.
So what is this "QR CODE" or the squirley-looking black & white icon
Some of you may be familiar with these strange looking icons. The black & white
cross-hatched icon represents our new website at truckeehistory.org. If you have a "smart" phone or iPad
with a 'QR Reader,' all you need do is scan your device OVER the
icon and you should be directed to our website. And what would one use this for? On any printed material, you could 'scan any QR
code' and be taken to their website immediately. In our case, you
can go immediately to our truckeehistory.org website and see the
Calendar for upcoming events.

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Go Paperless* (check here) ( ) to receive eBill Renewals** and e-editions of our newsletters
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* (a valid email address is required) ** Pay by Check or Credit Card (you choose your payment method)
For Renewals: Check if there are any changes below: ( ) If known, your renewal month: __________
MEMBERSHIP NAME: __________________________________________________________
MAILING ADDRESS: ____________________________________________________________
E-MAIL ADDRESS: ____________________________________________________________
HOME PHONE: ________________________ CELL PHONE: ____________________________
Enclosed please find my check for: MEMBERSHIP CATEGORIES (please check one)
Individual $20____ Family $30____ Business $40____
Non-Profit Organization $25____ Sustaining $75____ Contributing $100____ Other Donation $____
Select renewal month ______January or _____July (see TDHS website for membership details)
SPECIAL DONATIONS: Gift Membership $____ In the Name of___________________________
MEMORIAL DONATION $____ In Honor of __________________________________________
Other $____ ( ) Old Jail Museum ( ) Joseph Research Library ( ) ________________________
Contact me on ways I can volunteer ( ) Are you willing to docent at the Old Jail Museum? Yes / No
Areas of Special Interest and/or Comments/Suggestions: