

# Sisters craftsmen build solar system masterpieces

By Erin Borla  
Correspondent

For the past seven months Ed Beacham and his long-time friend Gary Lovegren have been steadily working on a project to commemorate the upcoming solar eclipse. Beacham, using his skills as a master clockmaker, worked alongside his friend of over 35 years as the two developed their own orreries.

These complex structures, first produced in 1704, are mechanical models of the solar system used to illustrate or predict the motions of the planets and moons. Each serves as a complex type of planetarium, which represents the solar system, planetary alignment and Zodiac on any given day and year.

“They can be used as a scientific instrument to go back in time when there was some kind of seismic event that impacted the Earth,” Beacham said.

Over the past several months the team of two have created 12 units — each designed as a coffee table. Both Beacham and Lovegren designed, engineered and created each of the 5,000 unique handmade gears and levers as well as models of planets and their moons for each of the

12 tables. Working on a platform similar to the workings of a clock — each unit uses articulated motion to represent the moons surrounding Earth, Mars and Jupiter.

Each planet and its accompanying moons are hand-painted by Lovegren’s daughter Rachel Feriend using NASA photographs as guides. All 12 of the units have the ability to be hand-cranked to a specific day, month and year which will then represent the zodiac and planetary alignment of that date. The duo tried to make each orrery with as close a ratio as possible although due to size and weight on the gears they are only aligned to Saturn.

“These are representations of the solar system as Galileo would have understood it,” said Beacham.

Beacham, known for his unique clockmaking at Beacham’s Clock Company on Hood Avenue in Sisters, has been making clocks for over 50 years. He made his first in his high school woodshop. He is one of very few “complete master clockmakers” that can design and build an entire product.

When asked what his favorite part of this unique project was, Beacham simply said: “Working with Gary



PHOTO BY ERIN BORLA

Ed Beacham, right, and Gary Lovegren have made intricate and exquisite models of the solar system, known as orreries.

— he has good energy and he learns fast.”

“I loved learning how to run the mills and the lathes,” said Lovegren. “Writing the programs for making each gear — I’ve been a mechanic, so working with gears is

nothing new; creating them was new.

“I love it here,” he said. “I hope to make a clock next.”

All of the original 12 orreries are already sold, but they still remain at Beacham’s Clock Company as the duo

finishes them. The public is welcome to stop in and view the work at any time when the shop is open. They will take orders for additional pieces.

Beacham’s Clock Company is located at 300 W. Hood Ave.

**Beacham's Clock Co.** Sales & Service Of The World's Finest Timepieces

**COME SEE OUR NEW ORRERY**  
(A moving mechanical model of the solar system)

Rare clocks from 1800s-present  
See clocks & watches being made  
Free tours

Ed & Kathi Beacham  
541-549-9971 | 300 W. Hood Ave., Sisters  
Open 9:30 a.m. to 5 p.m. | Closed Sun.

Remember: Total Eclipse 8/21/17 in Central Oregon!

Sun Activated Color-Change T-SHIRTS \$20

TOTAL SOLAR ECLIPSE AUGUST 21, 2017

**solareclipseoregon.org**  
Buy at Sisters Cascade, 150 W. Cascade Ave.

Custom-designed for this special event

**Eclipse T-Shirts & Stickers**

The Fly Fisher's Place  
First Class in Service, Selection & Knowledge  
151 W. Main Ave., Sisters | Open 7 days a week  
541-549-FISH | www.flyfishersplace.com

**COMMON THREADS**

**End-of-Summer SALE!**  
Now through September 4th

Town Square • 541-549-5648  
(Across from Sisters Saloon)

**Mountain High Coins & Jewelry**

Limited Edition - Solar Eclipse Coins

These Two Commemorative Coins are Exclusive Limited Editions - One Featuring a fully Colored Enamelled Sun and Moon in the exposed Black Nickel around the edge of the coin and the Second features a Fully Eclipsed Sun with a special glow in the dark ring. Both of these Amazing Keepsakes feature the Oregon reverse with the path of the Eclipse crossing the State.

These Collectable Coins are the perfect way to commemorate this special once in a lifetime Event!! The coins come complete with a Custom Stand Holder for \$25 or \$20 without the stand.

The coins are available at [www.solareclipseoregon.org](http://www.solareclipseoregon.org) or can be purchased locally at **Sisters Cascade** 150 W. Cascade Ave. | **Mountain High Coins** in Bend

For more information you can call 1.866. THE COIN or email us at [mtnhighcoin@gmail.com](mailto:mtnhighcoin@gmail.com)