



Lange pocket watch 3543 (1865).

I applaud MPS's decision to stick to the broad story line and make do with only photographic images of some of the "main stars" of the story for the exhibit. The British institutions—British Museum, Greenwich Observatory—and other museums in Europe—Beyer Museum, Deutsches Museum, Deutsches Schiffahrtsmuseum, Landesmuseum Stuttgart, Uhrenmuseum Glashütte—as well as corporate and private collections generously lent MPS 39 of the 64 objects selected to tell the story. The 64 objects in the exhibit include 13 made in Glashütte, and/or by F. A. Lange, or the company he founded there.

The 122 images—mostly high-resolution color photographs of one-of-a-kind watches—include many objects not shown in previous publications and probably by themselves make this book a must-buy for any horologist interested in such rare pocket watches dating before 1880. The serious horological scholar will also appreciate the extensive and detailed endnotes and comprehensive image credits.

Peter Plassmeyer and Sibylle Gluch deserve gratitude for setting a high benchmark for the intellectual standards of future exhibits at MPS and the quality and comprehensiveness of future exhibit catalogs.

Simple and Perfect—Saxony's Path into the World of International Watchmaking by Sibylle Gluch and Peter Plassmeyer, with contributions by David Thompson, Jonathan Betts, Matthias Ullmann, Eduard Saluz, Pierre-Yves Donzé, and David Penney. In Celebration of Ferdinand Lange's 200th birthday. Published in 2015 by Deutscher Kunstverlag, Berlin, Germany, for Staatliche Kunstsammlungen Dresden. ISBN 978-3-422-07309-8. 200 pages, 11" x 8.5", hardcover. Fully bilingual edition German and English (German title:

Einfach—Vollkommen—Sachsens Weg in die internationale Uhrenwelt). 180 illustrations (majority color photographs and reproduced historic documents, comprehensive illustration credits). Foreword by Willhelm Schmid, preface by Hartwig Fischer. Available through Amazon at <http://www.amazon.de/Einfach-Vollkommen-internationale-International-Watchmaking/dp/3422073094/>.

—Fortunat Mueller-Maerki, FNAWCC (NJ)

Ships, Clocks & Stars: Longitude Exhibit at Mystic Seaport

Most NAWCC members are familiar with the story of John Harrison and the eighteenth-century search for determining longitude at sea. To commemorate the 300th anniversary of the British Longitude Act of 1714, the National Maritime Museum in London created an outstanding exhibit and published a related hardcover book. Until March 28, 2016, nearly half of the objects exhibited in London in 2014 will be on view at Mystic Seaport in Connecticut. The exhibit's final venue will be Sidney, Australia, before the objects return to their various museums and private owners.

On September 17 at Mystic, I was treated to more than two hours of conversation with Richard Dunn, co-author of *Finding Longitude* and senior curator for the History of Science at the National Maritime Museum. He also made an elegant presentation that evening to an audience of more than 200 supporters.

The new book is not a catalog of the exhibition—sadly, there is none—but an updated telling of the longitude saga, which greatly expands on the 1995 best-selling book by Dava Sobel titled *Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time*. In his talk and book, Dunn objects to the "villain" role assigned to Nevel Maskelyne. The astronomer certainly had his problems with Harrison, but evidence is clear that he also actively supported the development of high-precision "sea watches."

We are reminded that chronometers were always just a part of longitude determination; celestial observations using finely made octants and sextants were just as vital to discover local noons and positions. The exhibit includes early examples of these instruments, plus an engraved 1791 portrait of sextant manufacturer Jesse Ramsden and his second dividing engine. The various thick almanacs of related data, produced by the Royal Observatory in Greenwich, England, were invaluable as well.

We learn, too, about the parallel horological work by Berthoud, LeRoy, and others outside of England. An unusual but failed Dutch "sea clock" made by Franciscus le Dieu in 1749 is shown but without the heated glass dome in which it supposedly would run at a constant temperature. The post-Harrison decades are addressed, when, as chronometers became more affordable and widely available, the world witnessed a "virtuous circle" of global commerce, marine charting, and technological advances.

Two additional iconic marine timekeepers on view deserve special mention. During 1766-1769, Larcum Kend-



Working replicas of John Harrison's first three marine clocks are highlights of the *Ships, Clocks & Stars* exhibit at Mystic Seaport in Connecticut. COURTESY OF ANDY PRICE/MYSTIC SEAPORT.

all was commissioned by the British Board of Longitude to produce an exact copy of H4. Known as K1, it accompanied Captain Cook on his second and third voyages, and Cook called it his "trustworthy friend" and "never-failing guide." Kendall's 1771 K2 traveled with Captain Bligh on the *Bounty*, but it remained with the mutineers and only through extremely fortunate circumstances returned to England in 1840.

Certainly a star of the exhibit is John Harrison's 1725 wood-movement longcase clock, actually signed by his brother James, featuring two significant inventions: a temperature-compensating gridiron pendulum and a low-friction grasshopper escapement. Its accuracy of a second per month exceeded anything else of the era and that of most other precision timekeepers made during the next two centuries. It was lent to the exhibit by John C. Taylor who so generously delivered his collection of Tompion material to the 2013 Ward Francillon Symposium in Pasadena, CA. Another Taylor loan is the Thomas Mudge Green timekeeper made around 1777.

Hanging, and dramatically lit, is the 1785 large portrait by artist Robert Davy of John Arnold, his wife, Margaret, and son John Roger. Centered on the oil painting is one of Arnold's chronometer movements, visible in fine detail. The artwork is owned by the Science Museum in London where it is seldom on public view. Other large portraits are also present. The earliest surviving image of Galileo Galilei from 1602 to 1607 shows the Italian shortly before he discovered the moons of Jupiter. The 1765 large formal portrait of John Harrison shows him holding the Jefferys watch, predecessor of H4. Behind him we see H3 in a gimballed frame—now lost, but a hardwood replica is shown in a nearby case.



Detail of the John Arnold family portrait, showing the chronometer he holds.

While many of the most important objects in the exhibit are pictured and described in Richard Dunn's *Finding Longitude*, many more are not. A visit, therefore, would be extremely worthwhile, not only to commune with Harrison's H4 and running reproductions of H1, H2, and H3, but also to examine displays of other important timepieces, navigational instruments,

artwork, documents, and all their informative labels.

Mystic Seaport, even without this exhibit, is a lovely and educational destination. For more information, visit www.mysticseaport.org.

—Bob Frishman, FNAWCC (MA)

MET to Open Exhibit *The Luxury of Time*

The Metropolitan Museum of Art in New York City is opening an exhibit that explores the decorative qualities of its holdings of French, English, Dutch, German, and Swiss horological instruments from the sixteenth century to the nineteenth century. During this time people purchased clocks and watches for decoration or as furniture, but many epitomized important developments in clock making.

The Luxury of Time: European Clocks and Watches exhibit includes objects from the museum's Department of European Sculpture and Decorative Arts as well as those that have not been displayed for decades. Among the familiar objects is Berthoud's ebony, gilt bronze, longcase astronomical regulator clock. The installation's highlight is the recently acquired automaton clock made in the early seventeenth century that depicts Urania, muse of astronomy, according to a recent news release from the museum.

The exhibit will be displayed from November 16, 2015, to March 27, 2016. It also will be featured on the museum's website at www.metmuseum.org and on Facebook, Instagram, and Twitter with the hashtag #LuxuryofTime.

—Editor *Therese Umerlik*