

# **New Mexico Zia Sundials Chapter# 106**

## **February 2021 Newsletter**

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Buzz Pierce gave a wonderful presentation on Killruddery water clock.

The ingenious and complex device was conceived and built around 1903-1906 by the 13th Earl of Meath, at his family's Killruddery estate near Bray in Co Wicklow, Ireland. When the Earl tested it in 1926, the clock was accurate to 0.33 seconds per day or about 10 seconds a month – and was probably the only water clock that ever had a second hand. There's a bicycle wheel, a toilet cistern, and a pin used from his wife's corset. Yet this odd assemblage, together with a long pendulum weighing 112lb, is arguably the most accurate water clock ever. The gong can be heard a 1/2 mile away.

The earl designed this while he was fighting in the Boar War in Africa. The water flows from nearby Little Sugar Loaf. Reduced to the thickness of a pencil, it falls inside the clock tower, and is used for precisely 0.1 of a second to push the pendulum. This keeps the clock going indefinitely, no battery or winding needed. For precisely one second, the water then falls on and depresses a plate that controls the escapement, or counting mechanism. And for 1.4 seconds the water is deflected away to collect in tanks, from where it is used to drive the clock and striking mechanisms. This cycle repeats every 2.5 seconds.

The ingenious design leaves the pendulum free, or decoupled from the going train: it only has to swing, and the system takes effectively no energy from it, which is what makes the clock so accurate.

Thank you for the presentation.

Buzz suggested we look at the [NAWCC PDF](#) attachment to give suggestions to him for presentations. Members from other chapters have posted programs they are willing to present to NAWCC chapters.

Happy Birthday to Ken T.

Larry Webster has clocks he would like to sell. See the photos below.  
Larry's email is: lw81250@yahoo.com phone 505-984-8552

## Information from our president Buzz Pierce:

Greetings all:

I wish to thank all participants – both members and guests – for their attendance at the January Zoom meeting. In this never-ending and most difficult time it is always good to stay in touch with each other through just about any format. Our attendance figures have been increasing and I would encourage all members to give joining us a try. If you are intimidated or need assistance please contact me.

We received a very cordial letter from Robert Cheney, Executive Director and Curator of the Willard House and Clock Museum. He states that “The Annus Horribillius challenged the survival of all non-profit, cultural institutions in the world and has caused the collapse of thousands. Because of your financial support and membership, Willard has turned the corner and looks forward to a new and healthy time. THANK YOU!” he also notes that the Museum is redefining its business model in incorporate a larger online presence and an outreach to educators in science, technology, engineering, and mathematics (STEM) utilizing their extensive collection of mechanical objects. We gave a \$100.00 donation to the Willard House.

The program for this month will be “From Bain to Shortt: Electrical Timekeeping, 1840-1940” by James Nye. This is a recorded video presentation from the 2013 Ward Francillon NAWCC Time Symposium on an interesting subject by an engaging speaker. I hope everyone can join us.

Buzz Pierce is inviting you to a scheduled Zoom meeting.

Join Zoom Meeting

<https://us02web.zoom.us/j/82773017844?pwd=TmEvbFBWMFdSRGQwZm9lbVprdjBzUT09>

Meeting ID: 827 7301 7844

Passcode: 641935

I would ask members to please forward to me any videos they might find while surfing the web that we might be able to use for future meetings. Videos need to be historically related and less than an hour long.

Stay safe & healthy – hope to see everyone on Saturday.

Best regards, Buzz

We are not collecting any dues for 2021 at this point due to the fact we are meeting via Zoom.



