

THE Tic Talk Times



April 2007
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Newsletter of Orange County Chapter 69 of the
National Association of Watch and Clock Collectors

Meeting minutes, Mar. 2, 2007

Video Voyage

Doug Adams called the meeting to order at 8:00 pm.

Upcoming marts were announced:

- Arizona Sunshine Regional – March 24 & 25,
- Chapter 81 – April 14 (2nd Saturday)
- Northwest Regional, Spokane, WA – May 17-19
- Our own Chapter 69 Goodtyme Supermart – May 19th
- National Convention, Chattanooga – June 6-9
- Chapter 75 – July 22 (3rd Sunday)

We welcomed guests Michael Nomura, Anna Pond, and Esther Calesaneto

Thanks to Phyllis Adams for the refreshments. Bud Saiben came home Wednesday from hip surgery. Huell Howser spoke to Roy Irick about his carriage clocks at the GLAR and will be on TV March 6th, channel 28, and March 29th at 6pm on KCET.

New business: Larry Squires talked to the Mayor of Garden Grove about putting the armillary sphere in by June. It needs a sunny location, maybe by the Tower Clock. Suggestions are welcome.

Beginner's Corner: GLAR 5 minute slide show with Huell Howser and Roy Irick.

Program: Dave Weisbart on Clocks & Watches of Vienna &

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This month

60 Hertz

This month, Ray brown will give a fact-filled and fascinating talk on the development of early "plug-in" electric clocks.

Starting with the development of AC power distribution at the end of the 19th century, we'll learn how a new type of clock for the 20th century had unprecedented accuracy and did not require winding or replacement of batteries.

However, its promise was tempered by the problems of early power generation which was not well controlled and was subject to frequent power outages. Manufacturers of these new timepieces used various innovative approaches to address these issues. As power generation matured, simpler and less expensive clocks were designed and built. New designs were marketed that added features and took advantage of small movement dimensions. By the beginning of the 21st century, new technologies had replaced AC synchronous clocks and these time machines became one more chapter in the long history of horology.

For the Beginner's Corner, we'll learn that Lignes & Pouces was not a 19th-century clockmaking firm. These are French units of measurement used in clockmaking to describe pendulum lengths. Dave Weisbart will explain these measurements and hand out a chart showing length translations as well as beats-per-hour calculations.

History

Henry Warren

Henry Ellis Warren enjoyed experimenting with and designing electric clocks and applied for his first patent in 1908. It was granted as #927,907 on July 13, 1909 and titled "Electric Apparatus for Driving Clock or Similar Mechanisms." It covers a battery driven pendulum clock where an electromagnet impulses the pendulum. Warren made many improvements to his design, and received at least six more patents about electromagnetically impulsed pendulum clocks. His work with electric clocks had started as hobby, and in 1912 he formed the Warren Clock Company but kept his regular job as superintendent of a manufacturing company. In the next few years, a small number of Warren's electrical pendulum clocks were marketed.

In 1916 Mr. Warren recognized the inadequacy of battery powered clocks, and began exploring other possibilities. He desired a simple system which would have universal application, and considered the two great networks which were then available: the telephone system and the electric light and power lines. The electric network appealed to him strongly because it not only carried enough power to drive clocks, but it contained timing information carried by current reversals. At that time, 90% of electric power was

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Meeting Minutes *(from page 1)*

Prague. He started with a tower clock in a village outside Vienna, then showed the Vienna Uhren Museum (clock and watch museum).



Many clocks with complications. He also showed us the Art History museum showing paintings with clocks. This was accompanied by music played by the USC Symphony his friend Mark Sullivan.

In Prague, he showed the famous astronomical clock in the old town hall, and Jan Klein clocks in the

Klementinum. Very well done.

We waited for Dave's video to end with an Austrian clock with a parade of historical figures and its own music.

Four door prizes were awarded. Thanks to Don for "manning" the front door.

Show & Tell, Letters O&P: Dave Weisbart showed



an original "o" miniature O.O.G. Clock *(above)*. Doug Adams showed a watch "P" 4 times over: Pocket watch,

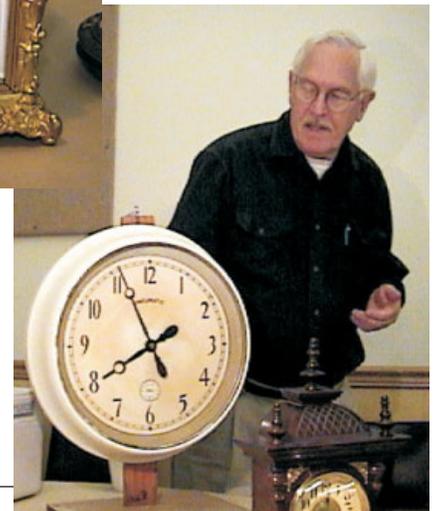
Paircased watch, outer case (tortoiseshell) with inner case (Turkish numerals). Poorly repaired, Prior (maker) but made in England with verge fusee. Doug also brought Phyllis for the letter P. Phyllis Adams showed Peanuts wristwatch and a band purchased at Pasadena. Doug Lynn showed a clock with Patriotic chimes (The Star



Spangled Banner). Roy Irick showed LeRoy made in Paris (carriage clock). Ray Brown Pontiac car clock, 1937 or so. Les Lesovsky Pneumatic slave clock, Hahl pneumatic,

master clock had 2 cylinders.

Submitted by Phyllis Adams.



News flash

Tic Talk Editor Quits

Garden Grove, CA, April 1, 2007 – For now, this headline is an April Fool's joke. But it will be no joke when my term expires in January. Our newsletter is the most important publicity and membership tool our chapter has. It's time for someone new to take over its publication.

The entire layout exists as a template. It can be produced by dropping in the articles and photos in a few hours each month. I will be happy to train and give ongoing support to the new editor. Contact me at the meeting or at webmaster@nawcc69.org for more information.

— Dave Weisbart

Warren *(from page 1)*

“alternating current” (A/C) which reverses direction many times each second.

By the summer of 1916 Mr. Warren had developed an A/C powered synchronous motor suitable for driving clocks. The term “synchronous” comes from two Greek words meaning “equal time”. This motor stays in step with the reversals or alternations of the A/C current. These motors are inefficient, but develop more than adequate power to drive a clock.

After developing a clock motor, Warren’s next task was the regulation of the alternations of the A/C current. A/C power in the United States is referred to as “60 cycles per second” or “60 Hertz” power because the current reverses direction 120 times each second, and each pair of reversals is called a “cycle”. (In the early days, some power systems in the US used a frequency other than 60 cycles per second). In 1916 the number of cycles per second was not well controlled (there was no reason for it to be) and thus Warren’s electric clocks had errors of up to 20 minutes per day!

Mr. Warren developed both the instrumentation and motivation for the power companies to solve the problem. He applied for a patent on Aug. 21, 1916. This patent was granted on Oct. 29, 1918 as #1,283,431. It describes a system where the time on a synchronous clock is compared to the time on a standard regulator, and a control means for correcting the speed of the generator so the average speed is 60 cycles per second, thus keeping all synchronous clocks on the power line on the correct time.

This patent also illustrates and describes a synchronous motor for driving the electric clocks. This motor looks like what was named the type A motor, the first motor that Warren Clock Company put into production. The patent also describes an auxiliary movement for the synchronous motor clock that will keep the clock on time if the power is interrupted.

Around 1919 or 1920, the type B motor was introduced. It used a sealed housing for the moving parts, and the design was so good that they ran for many years without attention. The sealed housing portion is called the “rotor” and the electrical portion is referred to as the “field coil assembly”.

The Telechron trademark was registered on November 13, 1923, applied for on March 3, 1921, but was first used in December 1919. The trademark Telechron (with a “k” instead of the “ch”) has been observed on a few early clocks. “Telechron” comes from Greek words meaning “time from a distance”.

“The growth in the sale of these modern electric clocks was very gradual after the first system became available in 1916. Only a few thousand were sold each year for the next three or four years. By 1921, however, the success of those

in use and the publicity which followed stimulated sales to a point where manufacturers of other kinds of clocks began to take notice, but it was not until 1927, ten years after the system first became available, that forms of synchronous electric clocks other than the ones which I have described to you began to appear on the market. Then a group of rival manufacturers began to grow and within a few years there were over a hundred different concerns which were selling synchronous electric clocks intended for use on systems that had been established quite generally throughout the country. Nearly all of these new forms differed from the original type in that they possessed no starting power, that is to say, it was necessary to start them manually and whenever there was an interruption in the power supply they would stop and not run until they had again been started by hand. While they were running they kept just as good time as the original type of self-starting synchronous clocks, but most of them were defective in some respect or other so that within another period of a few years they began to disappear from the market. Most of them were noisy, nearly all were short lived, and the universal habit of stopping after every power interruption proved to be a nuisance in many cases.”

In the 1930’s, motors type F and type H were introduced. These are smaller than the type B, and were also very long lasting. The type F was made for a relatively short time, but the type H became the most widely used motor of all for domestic clocks. The type B continued in use for many years in chiming clocks and specialized devices such as timers. A smaller motor, type S, was introduced in the 1970’s or 1980’s and was the last type to be used in new clocks.

From clockhistory.com



Board Meeting Minutes, March 5, 2007

Present: Dave Weisbart, Cora Lee Linkenhoker, Bob Linkenhoker, Phyllis Adams, Doug Adams. A quorum is not present.

Treasurer’s report: Bob – We are \$202.44 in the red for the fiscal year. He will correct the spreadsheet to read July 2007, not July 2006. Bob has a key to the front door and Don has the other one. Two mart tables have been sold already. Gene Osten said he would audit the Chapter’s books.

Old Business – Mart: Discussion on renting tables. Doug will handle table assignments, floor plan and badges. We are selling 6’ tables only, no half tables. There are 13 tables available. Doug has four 6’ tables. We will rent 18 more. Bob will handle registration and Doug has table covers. Charles will take on security, Woody will help. Phyllis, Ellie and Annette will help out in the kitchen. The menu will be lasagna, salad, bread, sodas, water. We will ask Dean & Robyn if they want to contribute the lasagna. Phyllis, Cora Lee and Mrs. Abbott will do registration. Dave has flyer already made, he will hand out. Also they are on the website. We will skip a board meeting in April.

Submitted by Phyllis Adams

**DATED MEETING NOTICE
PLEASE DO NOT DELAY**

*The National
ASSOCIATION OF
WATCH & CLOCK
Collectors, Inc.*
Orange County Chapter No. 69
c/o Cora Lee Linkenhoker
7186 Calico Cir.
Corona, CA 92881



Our Next Meeting: Friday, April 6, 2007

Program:

LIVE PRESENTATION
"Time Machines: A Review
of 20th Century Clocks."
by Ray Brown

Beginner's Corner Mini-Seminar:

"Pouces & Lignes" by Dave Weisbart

Show & Tell:

Horological items beginning with the letter "Q" or "R"

Board Meeting:

No board meeting this month

Time: 7:00 – Doors open
8:00 – General Meeting

Admission: \$4.00 – General
\$6.00 – Couples

Location: Acacia Grove Masonic Lodge
11270 Acacia Parkway
(in the Civic Center)
Garden Grove, CA

