The Hamilton Watch Co.: Mass-Producing Excellence

By Rhett Lucke, NAWCC Fellow (NE)

Founded in 1892 after a string of failed Lancaster, PA, watchmaking ventures, the Hamilton Watch Co. succeeded where others had not by focusing relentlessly on quality, innovation, and precision. Its watches helped make America's railroads safe, and its chronometers helped the Allies win World War II. The combination of manufacturing excellence and technical innovation made Hamilton the standard for American timekeeping.[1]

The Hamilton Watch Co. started with the physical assets of the Keystone Standard Watch Co. of Lancaster, PA, and with tooling and equipment from the Aurora Watch Co. of Aurora, IL, in 1892 (Figure 1). The city of Lancaster had seen a number of failed and abandoned attempts to establish a watch company at the Columbia Avenue site, starting in 1875. This included Adams & Perry, Lancaster Penn Watch Co., Lancaster Penn Watch Co. Ltd., Lancaster Watch Co., and Keystone Standard Watch Co. A separate venture, the Bowman Watch Co., had also operated in Lancaster between 1879 and 1882, but the tooling and designs were eventually sold to J. P. Stevens in Atlanta, when Erza Bowman elected to concentrate on his retail jewelry business, as well as founding a very influential vocational school in Lancaster. By the end of 1893, with Charles Rood serving as president and Henry Cain as superintendent and vice president, Hamilton had completed a building expansion and launched production and shipment of four newly designed nickel full-plate, 18-size movements. This included the 17-jewel grades 936 (open face) and 937 (hunting case) as well as 16-jewel grades 932 and 933 (Figures 2 and 3).

Figure 1. An 1892 Hamilton factory photo. AUTHOR'S COLLECTION.

The Hamilton Watch Co. took its name from Andrew Hamilton, who in 1730 founded Lancaster on a tract of land granted by the sons of William Penn.[2] From its inception, the intent of the new watch company was to produce only high-grade watches with a focus on the growing railroad industry and its need for watches that would meet established timekeeping standards. With this in mind, the company used slogans such as "The Railroad Timekeeper of America" and "The Watch of Railroad Accuracy" in much of its advertising in the early to mid-20th century (Figure 4).

The early 1890s were slow economic times, which drove Hamilton's decision to produce the lower-grade 16-jewel grades 932 and 933, but the early sales ledgers show that sales of both the 16- and 17-jewel were slow. In an attempt to weather this economic storm, Hamilton launched its only gilt watch, a 7-jewel, full-plate model (Figure 5). In total, 1,000 of these gilt watches were produced between 1894 and 1896. These were never given a grade number and are documented in company records only as "7 Jewel."

Through the end of the 19th century, Hamilton continued to expand its product line, including higher 19-, 21-, and

Figure 2. Hamilton serial No. 1, grade 936. COURTESY OF THE NATIONAL WATCH & CLOCK MUSEUM. PHOTO BY ROLAND MURPHY.

23-jewel grades and further capitalizing on its association with railroad timekeeping. The 21-jewel grade 940 would become its best-selling 18-size watch, with more than 200,000 produced between 1898 and 1928.

In the late 1890s, the watch market started shifting toward smaller and thinner 16-size watches. To serve this trend, Henry Cain designed numerous bridge and ¾-plate models ranging from 16 to 21 jewels, later expanding to include 23-jewel grades. The best-selling was the 21-jewel grade 992. In total, well over 600,000 of the 992s were produced between 1903 and 1940.

Figure 3. Hamilton serial No. 25, grade 932. AUTHOR'S COLLECTION. PHOTO BY JOHN COTE.

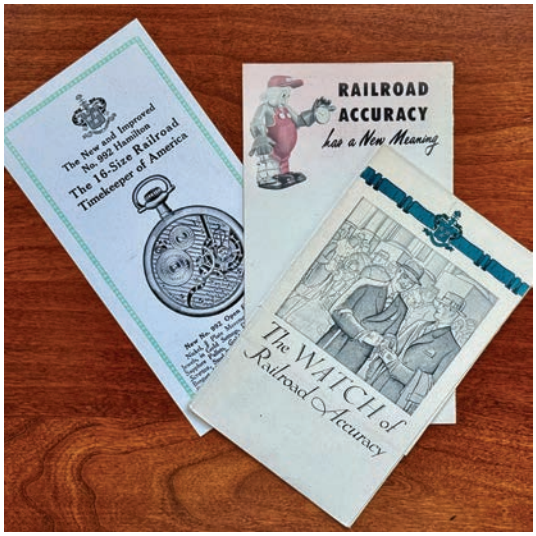


Figure 4. Advertising pamphlets from Hamilton. AUTHOR'S COLLECTION.

These watches were not only recognized for the accuracy and durability needed for railroad service, but also in other areas that depended on accurate timekeeping in harsh conditions. The 992 was chosen by General George Pershing and the US Army Corps of Engineers for use in building rail lines across France in World War I (Figure 6) as well as by Admiral Byrd for his Antarctic expeditions (Figure 7). In 1940, the all-new 992B replaced the 992 and went on to sell more than 525,000.

Beginning in 1908, Hamilton also introduced its first movements for ladies' pendant watches, the 17-jewel 0-size 982 and 983, followed in 1909 by the 19-jewel 984 and 985. Around the same time, Hamilton also introduced a smaller men's 12-size watch, targeted at the growing consumer pocket watch market.

Over the next several decades, Hamiton produced over 580,000 12-size watches with 17 to 23 jewels. These were then replaced by a line of 10-size models that also incorporated the latest advancements in design and manufacturing. Much of the technology that Hamilton developed for these 10-size models and the growing wristwatch market would prove very useful in the making of the 992B and specialized military timepieces for World War II.

Figure 5. The Hamiton 7-jewel. COURTESY OF JONES & HORAN HOROLOGICAL AUCTIONS.

Figure 6. Grade 992 used by the Army Corps of Engineers. AUTHOR'S COLLECTION.

In the 1920s, wristwatches began to replace pocket watches. Hamilton adapted first by changing its 0-size movements into round and cushion-cased wristwatches, and following those with 6/0-size and smaller movements. The design and manufacturing teams at Hamilton worked together to continuously improve quality and ease of manufacture, which by the late 1930s produced watches with the highest level of part-interchangeability in the industry (Figure 8). This quality, coupled with innovative print, radio, and later television advertising campaigns, put Hamilton on par with the best watch manufacturers in the world.

With America's entry to World War II, Hamilton, along with many other companies, switched from making consumer products to serving military needs. The company's new 992B pocket watch and wristwatches proved to be an excellent starting point for the quick development of timepieces for the Allied armies and navies alike.

7A

7B

Figure 7A. Dial view of grade 992 used in Byrd's Antarctic expedition. **B.** Case back view. COURTESY OF THE NATIONAL WATCH & CLOCK MUSEUM.

Figure 8. The Hamilton Piping Rock model, ca. 1930. COURTESY OF JONES & HORAN HOROLOGICAL AUCTIONS.

Figure 9. The Hamilton 4992B watch for both air and sea navigation. AUTHOR'S COLLECTION.

Figure 10. The Hamilton Model 23 chronograph. AUTHOR'S COLLECTION.

Figure 11. The Hamilton Model 22 chronometer watch. AUTHOR'S COLLECTION.

Figure 12. Model 21 marine chronometer. AUTHOR'S COLLECTION.

Specialty timepieces developed from the 16-size 992B platform included the 2974B comparing watch for the Navy, the 4992B (Figure 9) and 3992B watches for both air and sea navigation, and the Model 23 chronograph (Figure 10). A 35-size (Model 22) chronometer movement was also developed from this platform and used in both deck watch and gimballed chronometer configurations (Figure 11).

Hamilton's most impressive feat during the war was the development and production of the Model 21 marine chronometer (Figure 12). Prior to World War II, marine chronometers were expensive and hand-built in limited quantities by a handful of European manufacturers. The vast number of ships that were going to need these chronometers created an urgency to find a way to mass produce them.

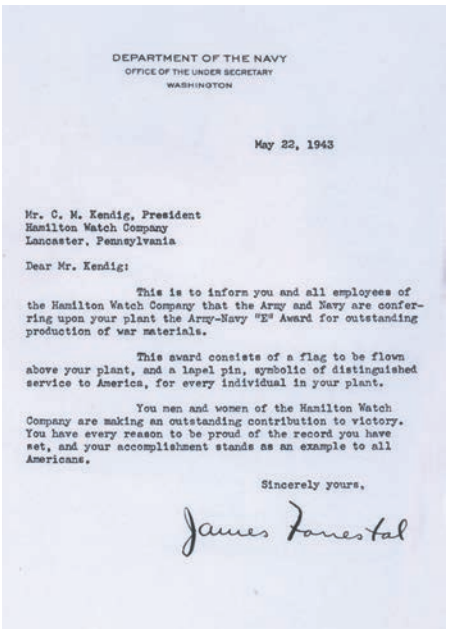
The government called on American firms to design and submit units for testing and approval. Hamilton and Elgin both answered the call, and Hamilton's pieces passed the rigorous testing requirements and earned the contract for the company. It went on to produce in record numbers the finest chronometer ever made.

In addition to these more traditional timepieces, Hamilton also produced several other war-related pieces, including timing devices and fuses for bombs (Figure 13). For its work, Hamilton was given the prestigious "E Award" by the government. A presentation ceremony with the company's employees was held in Lancaster on June 16, 1943 (Figure 14).

Hamilton's work with the Defense Department continued after the war. Pocket watch production was limited to a few 10-size watches and two 16-size railroad grade watches, the 21-jewel 992B and 23-jewel 950B. Wristwatches were now dominating the market and Hamilton's output. In addition to adapting to evolving tastes, the company also remained dedicated to innovating in both technology and industrial design.

During the 1950s, Hamilton introduced several bold and innovative watches, such as the Hamilton Electric, which launched to much fanfare in 1957 and included several futuristic case designs by famed industrial designer Richard Arbib (Figure 15).

▲ **Figure 13.** Hamilton fuse timer. AUTHOR'S COLLECTION.



DEPARTMENT OF THE NAVY
OFFICE OF THE UNDER SECRETARY
WASHINGTON

May 22, 1943

Mr. C. M. Kendig, President
Hamilton Watch Company
Lancaster, Pennsylvania

Dear Mr. Kendig:

This is to inform you and all employees of the Hamilton Watch Company that the Army and Navy are conferring upon your plant the Army-Navy "E" Award for outstanding production of war materials.

This award consists of a flag to be flown above your plant, and a lapel pin, symbolic of distinguished service to America, for every individual in your plant.

You men and women of the Hamilton Watch Company are making an outstanding contribution to victory. You have every reason to be proud of the record you have set, and your accomplishment stands as an example to all Americans.

Sincerely yours,

James Forrestal

► **Figure 14.** Letter announcing the Army-Navy E Award for Hamilton. AUTHOR'S COLLECTION.

Figure 15. Hamilton Electric Ventura. COURTESY OF UNWIND IN TIME.

The late 1950s also saw the beginning of the end of Hamilton's manufacturing in Lancaster. In 1956, the company was forced to begin sourcing some of its movements from Switzerland to keep up with lower-cost Swiss watches. In 1969, Hamilton decided to move the manufacturing of all movements to Switzerland. Some assembly remained in Lancaster until the early 1990s, until, after a series of reorganizations and name and ownership changes, the Lancaster operations finally came to an end. From its inception to its century of work in Lancaster, PA, the Hamilton Watch Co. set the standard for American watchmaking through continuous evolution in design and manufacturing processes, as well as strategic product innovation. Now part of the Swatch Group, the brand continues this legacy today.

Notes and References

1. Suggested reading for those who want to learn more about the Hamilton Watch Co.: Don Sauers, *Time for America* (Sutter House, 1992); Marvin Whitney, *Military Timepieces* (American Watchmakers Institute Press, 1992); Marvin Whitney, *The Ship's Chronometer* (American Watchmakers Institute Press, 1985); Rene Rondeau, *The Watch of the Future* (1992); Rene Rondeau, *Hamilton Wristwatches: A Collector's Guide* (1999); Bryan Girouard and Will Roseman, "The 0-Size Wristwatch: Hamilton's First Wristwatch for Men," *NAWCC Bulletin* 48, no. 361 (April 2006); George Meyer and Burt Cifrulak, "The Adams & Perry Watch Company and the Early Watch Companies of Lancaster, PA, Parts 1-3," *Watch & Clock Bulletin* (May/June 2013; September/October 2021; March/April 2022); "Hamilton Watch: 'The Watch of Railroad Accuracy,'" *Fortune Magazine* (January 1947); *Tomorrow in the Making: The Story of Hamilton Watches and the War* (Hamilton Watch Co., 1943); and *The Halligan Documents* by Lowell Halligan, vice president of Hamilton Watch Co., available in the NAWCC Library & Research Center and at nawcc.org.
2. Michael C. Harrold, "Charles Rood and Henry Cain: Origins of the Hamilton Watch Company," *NAWCC Bulletin* 44, no. 340 (October 2002): 547–70.

About the Author

Rhett Lucke has been a member of the NAWCC since 1984 and currently serves on the NAWCC Board of Directors. He has contributed to and written numerous *Bulletin* articles as well as participated in the NAWCC Time Symposium on railroad timekeeping. He led an NAWCC project to raise funding for and to coordinate scanning of the Hamilton factory ledgers, available online for NAWCC members at nawcc.org/research/company-records/hamilton-serial-number-search. Rhett is a graduate of the University of Nebraska with a BS in engineering. Prior to retirement, he held a variety of engineering and management positions. His horological interests include American watches and chronometers intended for the American market.