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The Answer Box

Managed for the Members of NAWCC by Paul Heffner

For this pretty springtime I have received some answers and some questions. This again proves how helpful our membership always is—I call it the NAWCC Mark of Distinction!

The question is found in the lead-in to The Answer Box in the October 1993 BULLETIN, page 603, with a picture of the clock on page 604. The answer was provided by long time Answer Box team members Phil and Sarah Russell. They investigated and found the identification in *The Standard Antique Clock Value Guide* by Alex Wescot, no date. The New Haven model "Thermo" is shown on page 142. In answer to the original question, it does have a two-jar mercury pendulum and a spade/straight hand configuration. This clock is shown in a 1918 New Haven catalog, which also dates the clock. My thanks to Sarah and Phil for answering this question. I am looking forward to reading their upcoming BULLETIN article on The Ansonia Rubber Co. and finding out about the rubber clock cases which they made!

This next answer was provided by John Darrow, PA. I am always amazed at the things that John comes up with, and this is no exception. This was printed in the Answer Box column of the December 1993 BULLETIN and was a response to A.M., found on page 762. John took me to task for the reply, but my intention in publishing that particular question and answer was to demonstrate that we need all the information possible to answer some of these questions. I suspect that anybody who knows the clock might have an answer! However, John is familiar with the clock and says, "These clocks I have seen used the Simplex alarm movement, modified." If you look in the LaRose catalog, you will find a spring listed under Ansonia Simplex. Also, he questioned the Waltham patent number and had determined that it concerned alterations to the movement to permit winding and hand setting for that clock case. My thanks to John Darrow for the answer to this question!

Do you have a question about a particular clock, watch, tool, or other horological item? The Answer Box may be able to help you. Send your question along with a **self-addressed stamped envelope** to: The Answer Box, NAWCC, Inc., 514 Poplar St., Columbia, PA 17512. See the February or August issue of the BULLETIN for requirements and suggestions for effective questions.

Next is a question for the membership at large. J.E.H. reports that he has a Waltham banjo clock which has been in his family since the 1920's. The serial number found on the movement is 7348. I looked in my catalogs (1928 and 1930) and found these clocks advertised as Willard Waltham banjo clocks. So, my question is this—Is anyone familiar with the Waltham numbering system for clocks? Very few clocks were ever serial numbered; one usually thinks of watches when a serial number is mentioned. If there is anything on this Waltham system, I would appreciate hearing about it.

In closing for this issue, I would again like to stress the importance of providing as much detailed information as possible—it makes our job easier to give you a better answer!

(Paul V. Heffner)

A SAMUEL RUEL, ROTTERDAM, WATCH

From: B.B.

I am new to both the NAWCC and watch collecting. I enjoy reading your column and am wondering if you might be able to provide some information concerning a watch I have recently acquired.

I have three pictures of the watch showing the dial, the back plate of the movement, and a side view of the movement.

The movement is contained in a plain silver pair case which contains no hallmarks, but does have the letters IPA stamped inside the case. I take this to be the mark of the casemaker. On the back of the outside case is engraved the name THOS BISHOP with the year 1706 below the name. It appears that the year originally was 1776 with the second 7 having been changed to a 0.

The dial measures 38mm and contains a small window centered between the hands and the six position. Within this window can be seen the number 9 engraved on the plate below the dial. To the right of the 9 can be seen what appears to be the number 10.

The works is engraved with the watchmaker's name and location (N. 230, Samuel Ruel, Rotterdam). There are three squares which could be turned with a key. Two are located on the back, the other is located between the plates just under the main spring barrel. The cock, a bridge held by two screws (one of which is missing), is engraved with some sort of a bird and contains an opening showing a simulated pendulum balance and timing adjustment scale. The hairspring, although broken, looks as if it would make one and a half turns. Timekeeping adjustment is by a key square which moves the small arm seen to the left and below the "pendulum." Located at each end of the cock opening is a small screw to which a metal finger is attached. Between the plates is a chain drive fusee verge movement (with broken chain). While in obvious need of being cleaned, the works show little sign of wear. The condition of the mainspring is unknown.

In view of the manipulated case date and other engravings, I am wondering if you might be able to provide some information on the maker, including a closer estimate of the date it was made. As I do not repair antique watches, I am trying to determine if the piece is worth having it restored.

Thank you in advance for your time and efforts in behalf of this request.

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Your several questions can be restated as: 1. What can we say about the watch, its period, its case, and its maker? 2. Is it worth restoring?

To an unusual extent, number one can be almost fully answered from the literature; the answer to number two follows automatically. I cite below some quotations from the literature, followed by my observations.

In G. H. Baillie, *Watchmakers and Clockmakers of the World,* Third Edition, N.A.G. Press, 1972, we find two listings for a Samuel Ruel:

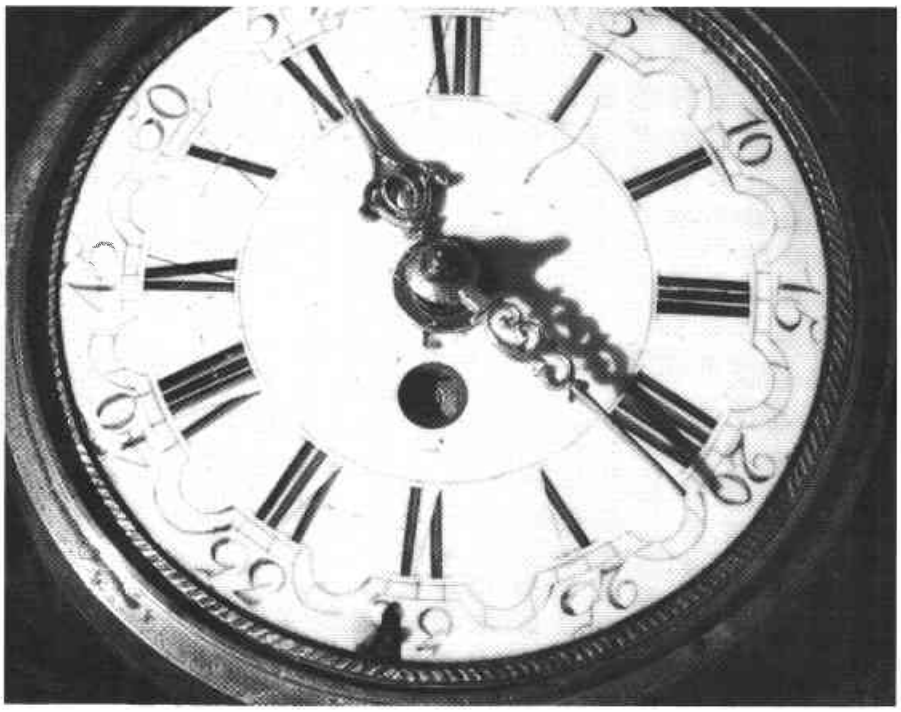
"Samuel Ruel, Rotterdam, 1675–1705; Watch movement [in museum], Watch [in] Dennison collection."

"Samuel Ruel, Rotterdam, 1788, Fine Collection, Watch illustrated in Britten, Watches [in the State] Museum, Amsterdam, Denn. Coll."

From the Catalogue of The Worshipful Company of Clockmakers of London in the Guildhall Library, Mowbray & Co., Ltd, London, 1949, entry #765: "Watch Movement by Samuel Ruel, Rotterdam. . . .verge. Cock with slot."

From Camerer Cuss, *Early Watches,* p. 37–8, Between 1685 and 1710 . . ."balance cocks that disclose a portion of the balance through an aperture and thus give an illusion of a pendulum swinging. . ."

The literature citations suggest very strongly that the watch dates from the early 18th century, or the end of the 17th; this view is supported by the figures. The balance bridge, reaching across the entire width of the plate, is the conventional Dutch form for the early 18th century; the face, with the little arcades between the Roman numerals, is also Dutch of the same period, and is thus probably original. The square between the plates is the extension of a worm-gear used to setup the mainspring in its barrel; this is another feature never found later than the mid-18th century. The other squares are for winding and regulation. The aperture in the face above the 6 o'clock position, which you say shows "9," is the calendar! The 1½-turn balance spring is typical of such early products.



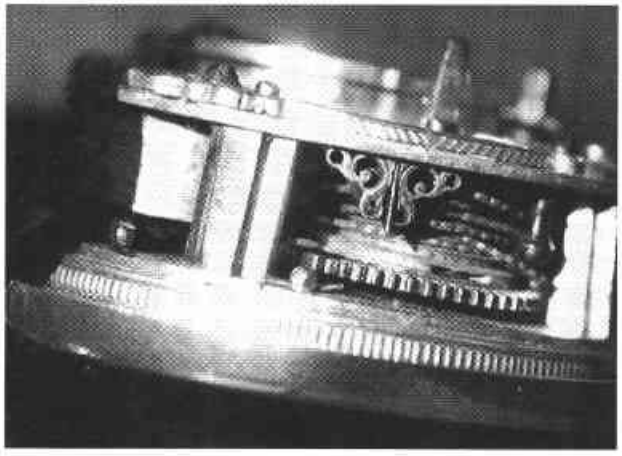
The dial of the Samuel Ruel, Rotterdam, watch.

This is a calendar watch, made by the first Samuel Ruel listed above, near the end of the 17th century, in the Dutch style and technique. The case is probably original; the hands appear to be later replacements. The dates on the case are probably related to the owner of the watch, rather than to the maker.

This watch is complete with its case and face, although the hands may not be original. It is a rarity of museum quality, far more rare and valuable than a "collectable." It is almost certainly restorable, and the cost of restoration would be a small fraction of its value.

(Fred Powell)

Left, the back plate, and right, a side view of the Samuel Ruel, Rotterdam, watch.



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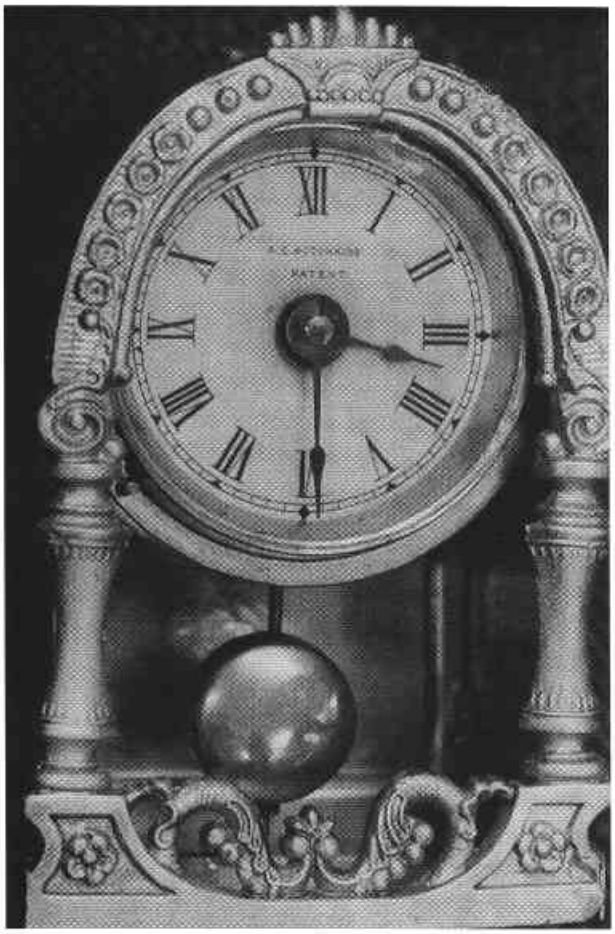
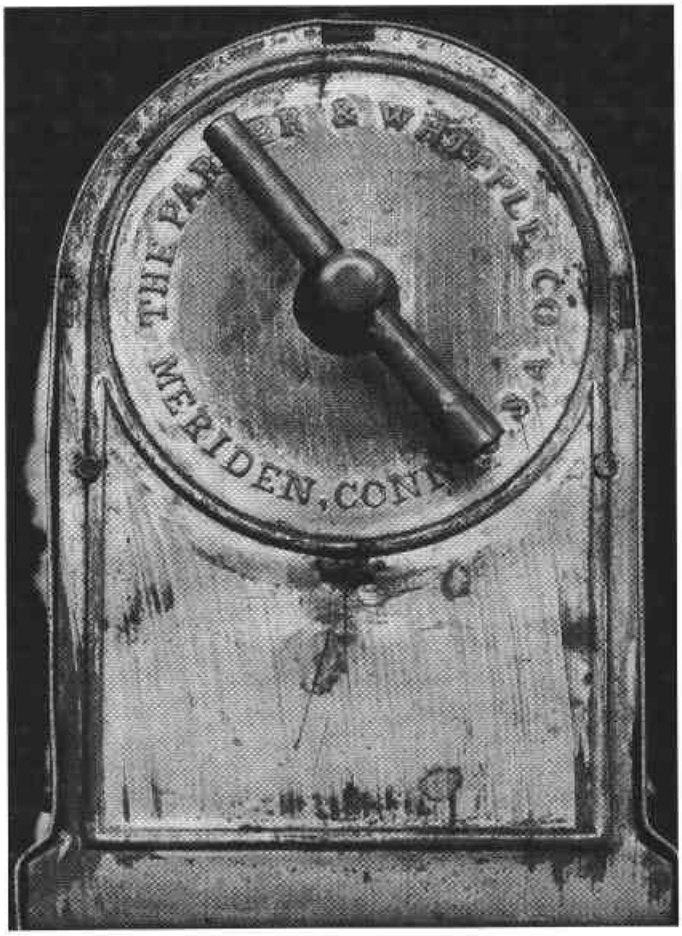




Left, the front, and right, the back, of the Parker & Whipple Co. miniature clock.

A PARKER & WHIPPLE CO. MINIATURE CLOCK

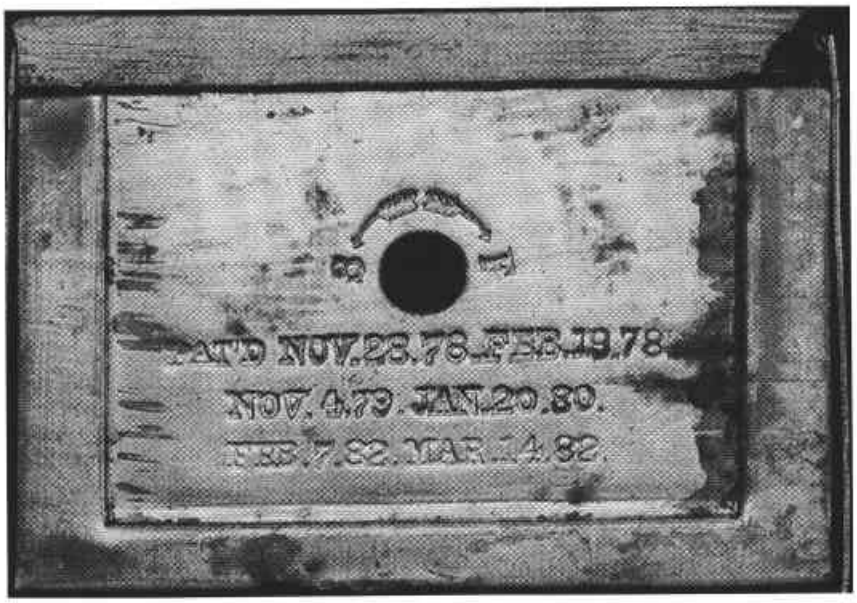
From: C.G.S.

I have a very small pendulum clock. The case is 3 1/4" high by 2 1/8" wide by 1 9/16" deep. The front, back, and bottom of the clock are shown in the figures.

The Roman numeral dial is 1 1/4" and consists of a celluloid-type material. It is marked "A.E. HOTCHKISS/PATENT." The front of the case is cast pot metal. The sides are nickel-plated brass; and the back and bottom consist of one piece of plain brass. The back is stamped "The PARKER & WHIPPLE CO; MERIDEN, CONN, U.S.A." The bottom is stamped with patent dates as follows: NOV. 28,78; FEB. 19,78; NOV. 4,79; JAN. 20,80; FEB. 7,82; MAR. 14,82.

The winding and setting are accomplished from the back of the clock with a special winding key. It has a "TIC-TAC" escapement with the pendulum mounted directly on it. The pendulum is adjusted

The bottom of the Parker & Whipple Co. miniature clock.



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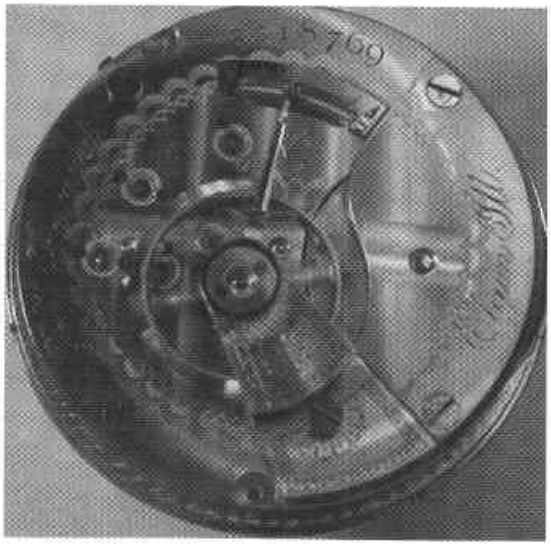

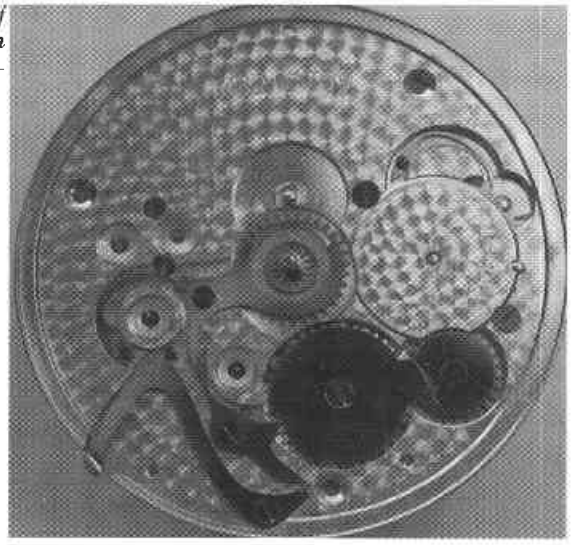

Left and right. Views of the Elgin watch with an unusual setting mechanism.

through a hole in the bottom using the winding key.

After being dismantled and given a good cleaning and some repair, the clock ticks away like the little gem that it is! I did not count the train and do not know what the beat is, but it does run for about 30 hours. Is it unusual or rare? I hope you get a little kick out of knowing about it, too!

Your clock is a gem; and it is rather curious that very little has been written about the Parker & Whipple Co. Brooks Palmer did mention the company in his book, *The Book of American Clocks*. But the best writeup that I have found is included in Tran Duy Ly's book, *American Clocks, A Guide to Identification & Prices*. Page 109 contains a short history of the company, and I am including photocopies of the appropriate pages, for your information. As you may note, your clock will date sometime after 1882 (the last patent date) and 1893 when Charles E. Parker bought out the Whipple & Parker Co. and renamed it the Parker Clock Co.

Before forwarding your question on to me, Eileen Doudna, NAWCC Librarian, did research your question, and among it all, did a patent search on the listed patent numbers. I am including the results of this patent search for you; and, as usual, if you do desire copies of these patents they are available through our Headquarters at the same price charged by the U.S. Patent Office.

I would also like to compliment you on the quality of the pictures you provided. They go a long way towards making the research more enjoyable and fruitful!

I think your little clock is most unusual. It adds a bit to our horological documentation. Thank you for sharing it with us!

(Paul V. Heffner)

AN ELGIN WATCH UNUSUAL SETTING MECHANISM

From: J.J.L.

Recently I had an 18s Elgin watch in for repair. It was a 15-jewel B. W. Raymond with a serial number of 3218769. The watch looks quite normal from the back plate side, but when the dial is taken off, I'm looking at a wind and set mechanism that I haven't seen before. The back plate is marked M3218769. Can someone tell me what patent this is? I would be very thankful for an answer.

Your very excellent photos of the mechanism in question greatly facilitated the search and I am pleased to report that I have identified the patent as No. 152,113 which was awarded to George Hunter on June 16, 1874.

You will see from the patent that Mr. Hunter assigned one-tenth of his right to the (Elgin) National Watch Co. which explains why it was used on Elgin movements. You also will see that the original design shown in the patent was altered slightly in the implementation. I can only speculate as to the reason for these differences. Possibly the Elgin company preferred a different type of setting lever than that depicted in the patent or there was an unanticipated problem with the original configuration. But, in any event, these modifications did not alter the basic design that Hunter had invented.

(W. F. Meggers, Jr.)

PATENT UNION CHRONOMETER—W. PAYNE

From: J.G.

I recently purchased an English pocket chronometer housed in an obviously not-original case, hallmarked in London for 1870. The 20-size movement (in a dust cup) bears an inscription: "Patent Union Chronometer—W. Payne, 163 New Bond St., London—63745."

According to Loomes, William Payne worked in London during the period of 1828–51, and the firm of William Payne & Co. was active in the period of 1857–81. In the book by Paul Chamberlain, It's About Time, *there is a reference to union chronometers, and in the catalog of his first collection an example of such a watch is described (item #89). However, the latter, according to Chamberlain, was made under a patent granted to Charles Grant Kelvey and William Holland in 1859, and this patent was a "simplification" of one granted previously to George Morton. Loomes cites two George Mortons: one of Keighley, clockmaster in 1853, and the other of London in the period 1869–75.*

I would appreciate receiving some explanations for these discrepancies among the dates, and for some more information about union chronometers. Did the clockmaker Morton patent a chronometer escapement? How could the second patent

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be used by Payne, who was not in business at the time when it was granted?

Thank you in advance.

According to Britten and also Mercer, William Payne's businesses were located at 62 Moulton St. W., 1810–1816; 39 High St., Bloomsburg, 1825; 163 New Bond St., London, 1830–1911; 165 New Bond St., 1912–1915. He was listed as watch/clockmaker, pedometer maker, jeweler, retailer and a maker of musical clocks, for which he received a patent No. 12516, 1849.

Tony Mercer's book, *Chronometer Makers of the World*, states that the "Union Chronometer was invented by Messers Charles Grant Kelvey & William Holland of Rock Ferry, Birkenhead. A detent escapement with pallets embracing 22 deg or teeth and supposedly resembling the Duplex & the 'Eschappement Robin' . . . And later was granted patent No. 2636 in 1859." Britten also states that Kelvey & Holland's Patent Union Chronometer was granted in 1859, but he does not mention any patent number. A search of the material that I have does not show any patent by the number noted by Mercer.

Although Mudge invented the lever escapement in 1759, it was not until the late 1830's that it began to receive recognition. At that time, makers began to devise a means or marriage of the lever escapement with the chronometer balance. Their thinking was that by utilizing the mechanical principle of the lever and the rate performance of the chronometer balance, a superior type of timepiece could be designed. Such pieces were known as "half-chronometers," a watch with a lever escapement, a helical hairspring and chronometer-type balance wheel, whereby the impulse was imparted to the balance by the escape wheel, but the locking/unlocking was performed by the two pallets and fork. Robert Robin (1742–1809), a very excellent French craftsman, constructed such an escapement in 1791. Using a lever for locking while the escape wheel delivered the impulse to the balance during alternate beats, like that of a chronometer.

Hence, many watch/clockmakers began seeking ways to improve this type of escapement, and in doing so, there were points of similarity in their designs. As Gould stated: "The design has been reinvented and re-patented several times."

Even Breguet was not totally sold on the concept of the lever escapement. In addressing his misgiving, he designed an escapement that utilized two escape wheels which delivered alternate impulses to two separate impulse pallets mounted on the balance staff. Subsequently, it became known as the "double Robin."

Most of the movements used were ebauches, ½, ¾, or full plate, with fusee, bimetallic balance wheel with screws, blued steel helical or spiral hairspring and jeweled train.

The term/title "Patent Union Chronometer" evidently was not a term used or assigned to any one particular maker to describe his escapement, but was a term that was widely recognized describing any escapement with a Robin-type escapement. Hence, the words "Patent Union Chronometer" are engraved on many different maker's pieces who subscribed to the Robin-type escapement.

In 1856, George Morton applied for a patent on a Robin-type escapement which was granted on October 17, 1857 (No. 2432). On January 25, 1859, Charles Grant Kelvey and William Holland were awarded patent No. 233 which they stated was an improvement on the invention described in Specification 2432, 1856. Evidently, Kelvey and Holland made additional improvements on their original patent, for in 1863, they applied for Patent Union Chronometer patent No. 2148.

I find three different George Mortons listed; one of Keighley, clockmaster in 1853; the second at 31 Hanover St., Islington, 1861–75; and the other of London, 1869–75. Thus, from the above dates, it appears that the Morton of Keighley was the one granted the patent.

William Payne undoubtedly was a very capable craftsman, and I feel that being awarded a patent for a musical watch attested to his mechanical ability. Payne was one of many makers who, no doubt, was very familiar with the work of many of his contemporaries, so he joined ranks, designed and made a watch with a Robin-type escapement and signed off on it as a Patent Union Chronometer, as did his peers. I find nothing that would lead me to believe that he was ever granted an official, titled patent on a Robin-type escapement.

However, the advantages gained in these many variations were minimal, not worth the extra time and effort involved. So after all was said and done, Mudge's beautifully designed escapement prevailed. Other than a few minor improvements, Mudge's lever escapement is the same today as it was yesterday.

(Marvin E. Whitney)

WRISTWATCHES MADE BY ILLINOIS WATCH CO.

From: E.E.B.

Is there any record of the quantity of wristwatches made by the Illinois Watch Company? Thanks for your help.

The simple answer to your question: "Is there any record of the quantities of wristwatches made by the Illinois Watch Co.?" is "No." However, there is a way in which one can at least arrive at an estimate.

All Illinois Watch Co. movements made in sizes 3/0 and smaller can be considered to be wristwatch movements. In *American Pocket Watches Encyclopedia and Price Guide—Volume II—Illinois Watch Co.*, by Meggers and Ehrhardt, Heart of America Press, 1985 (available from the NAWCC Lending Library), the various grades that were made in each size and their production are listed. So, by summing these production figures one can obtain the total quantity of such movements manufactured.

However, wristwatch collectors are not so interested in the number of movements made as they are in the number of such movements that were cased in a particular style of case. This is a much more difficult problem. Some styles of cases were shown in factory advertisements that indicated the grade of the movement. But since a given grade might have been used in two or more case styles, it is not possible to accurately determine how many of a particular grade were used only in that case.

If it is any consolation, the same situation exists for pocket watches. Thus, for example, it is possible to determine how many 21-jewel Bunn Special movements were made, but it is not possible to establish how many were cased in the First Model Bunn Special Case. Fortunately for the pocket watch collectors, however, the scarcity of the movement is the primary consideration.

I hope this is of some assistance to you and thanks for writing to The Answer Box.

(W. F. Meggers, Jr.)