Sotheby's, New York City

Time Is Money at Sotheby's: Masterpieces from The Time Museum

by Jeanne Schinto

Photos courtesy Sotheby's

Just after the last lot was sold, Sotheby's auctioneer Ian Irving spoke for many when he said to his audience, "I don't think we'll ever see a sale like this again." What aspect struck him as most phenomenal? We didn't get a chance to ask but do have a few nominees for the distinction.

First, there were the objects themselves—not only clocks and watches, but time-finding and time-keeping devices, along with other horological ephemera, curiosities, and artworks from the now-defunct Time Museum in Rockford, Illinois. Opened to the public in 1970 by its founder Seth G. Atwood, the museum and its collection were deservedly world-renowned.

Second, there was the cast of characters, especially Cameel Halim of suburban Chicago, a self-described collecting "rookie," who nonetheless came to the sale and sat for three days buying and buying—creating the core of another potential Time Museum of his own.

Previewers, wearing latex gloves, were permitted to handle some of the most celebrated treasures in the horological world. They knew they'd never have another opportunity quite like it again. Here they are pictured with the early marine timekeeper known as "Mudge Green." Completed in 1779 by Thomas Mudge after three years' labor, it sold for $1,240,000. Seated around the table, from left: David H. Grace of Madison, Wisconsin; Tom McIntyre of Harvard, Massachusetts; Charles Wallace of Natick, Massachusetts; Louis Christina of Georgia; David Penney of Bishop's Stortford, England; and Michael P. Laux of Bellevue, Washington. Standing from left are an unidentified dealer from the Netherlands and Brice Woodward of Johnson City, Tennessee. Schinto photo.

Thomas Mudge (1715-1794) was nearly blind when he made the last two of his three famed marine timekeepers in the late 1770's. The first one, known as "Mudge No. 1," is in the collection of the British Museum. The second, "Mudge Blue," is in the Mathematisch-Physikalischer Salon in Dresden. This is the third one, "Mudge Green." All three are celebrated in the history of the pursuit of the elusive longitude prize.

"Blue" and "Green" are identical except for the corresponding colors of their shagreen cases. (The cases were covered with different colors in order to tell them apart.) The twinning enabled Mudge to determine if variations in the timekeepers' rates were caused externally or internally. Making two identical timekeepers was also a requirement of the board that was in charge of issuing the prize, which they never did in Mudge's lifetime. Only after Mudge's son championed his father's work was a kind of consolation prize awarded to him.

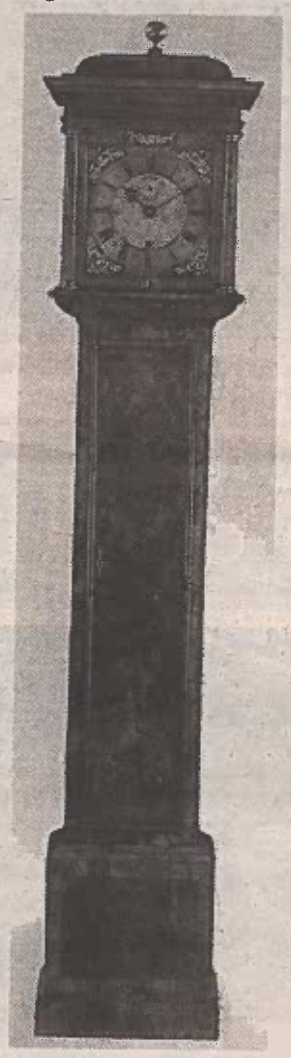
Like the top lot at this auction, "Mudge Green" was lost for decades—reportedly "lost at sea" at one point. But it reappeared in 1976, when it was sold at auction in London for £62,600. Seth Atwood subsequently bought it for the Time Museum from the man who became his principal supplier, a dentist who was also a dealer and collector from Basel, Switzerland named Eugene Gschwind. It was said to have been Atwood's single most expensive purchase.

At this auction it brought $1,240,000 (est. $1,500,000/2,500,000). Dealer Richard Garnier was bidding on behalf of the same collector from England for whom he bought the Harrison regulator. Garnier was underbid by Peter F. Planes II.

This high-precision tall-case regulator was one of three made in the 1720's by John Harrison (1693-1776) and his younger brother James (1704-1766), whose name appears in gold on the arch above the dial. It was sold to Richard Garnier at the top-dollar figure of the three-day auction, $1,576,000.

This is the clock on which the elder Harrison depended to test the first of the sea clocks he made in his quest to win the longitude prize. It is, as well, one reason that he pursued the prize in the first place. He and James had achieved such accuracy with it and the two others they made, that making a high-precision marine timekeeper seemed possible, and he was encouraged to try. The movement, visible through glass panels in the sides of the bonnet, has large oak wheels. The so-called grasshopper escapement, made of brass, is Harrison's own invention. The ebonized case with gilt-capped hood pilasters stands just 6'11½".

The only Harrison clock to be offered at public auction in recent memory, it was bought by Garnier on behalf of a private English collector, but not the one with whom Garnier traveled to the sale. The new owner gets a clock that almost didn't survive. It was lost track of for many years, neglected, then rediscovered. Although it remained in the Harrison family long after the brothers' deaths, it was later sold, perhaps to clear a debt. It was found, a wreck, in the 1860's in the cellar of an inn in Hull (named the Old Malt Shovel, no less). In 1954 it was sold to a Colonel Quill. By then its case had been painted pinkish brown, its dial had been redecorated Victorian style, and many parts had been replaced. Under the colonel's direction, both case and movement were returned to what was thought to be their original condition. The clock was sold by Quill to Seth Atwood for his Time Museum in 1980.



The circa 1690 Thomas Tompion tall clock, a grande-sonnerie movement in a 7'1" tall walnut case, went to a private collector from the U.K. who bid from the front row. The Englishman was seated next to his advisor, Richard Garnier. Grande-sonnerie tall clocks by Tompion (1639-1713), a blacksmith who grew up to be one of England's greatest clockmakers, are rare. No more than three are thought to have survived. The buyer of this one, who asked for anonymity, did a rare thing himself at this auction. He paid within estimate: $680,000.

No bargain hunter, he bought two other English tall clocks, bringing his total for the three to $1,648,000. For a circa 1685 three-month-going Roman-striking clock made in London by Joseph Knibb (1640-1711), he paid $540,000 (est. $150,000/250,000). This was despite some people's misgivings about its ebonized case (the backboard had been replaced, they decided). His third purchase was a walnut-cased clock made circa 1725 by Daniel Delander, a Tompion apprentice. Its price: $428,000 (est. $100,000/150,000). Chris Jussel was the Delander's underbidder.

Halim, who immigrated here from Egypt as a young man in the 1960's and is now a real-estate developer, frustrated not a few people who had hoped to buy some of the treasures that Atwood had acquired. Our accounting shows he bought 149—or 22.7%—of the 654 lots that were offered. By value, that represents 20.8% of the total $18,210,690 that the sale brought. (All prices include the buyer's premium.) He bought in all categories except instruments and artworks, spending $3,793,300. There were six sessions in all, held October 13-15, 2004, and Halim spent $1,935,800 in the first session alone. People noticed.

"When a spender like that shows up at an auction, initially people are in awe," said one observer. "Then they're miffed and want to run him up. Then, in the final stage, they want to be his friend." In fact, that is exactly what happened.

There was one more phenomenal aspect to this auction, one that was widely criticized. People asked themselves and each other, "Was there ever a sale with estimates so uniformly, so wildly *off*?" While a handful were way too high, and the ones predicting the performance of the two top-dollar lots proved to be more or less correct, most of the rest were ridiculously low—far below what could be considered merely conservative. "About ten thousand zeroes were missing," said David Newsom, a collector from Massachusetts. "We've been joking that they must have been trying to save on printing costs on the catalogs."

Daryn Schnipper, Sotheby's expert in charge of international clocks and watches, said the estimates were meant "to send the message that everything was for sale." (Indeed, only seven lots went unsold—1.1% by lot, a mere .4% by value.) She added, "It's impossible, at the end of the day, to have any kind of guideline when you're talking about things so individual in nature." True, in the instances of those that could be called unique, but what about the rest? Those who know pricing in American horology could surmise that Sotheby's London-based clock expert, Michael Turner, simply wasn't versed in those values. "And, bless his heart, there wasn't time to seek advice," said one who was in the know, considering the sheer amount of material (some 1250 objects) that Sotheby's had to catalog quickly.

The result was a catalog, in three huge volumes, of uneven quality. Although the first volume was thorough, the last, which contained most of the American sections, seemed a veritable afterthought. "We struggled with how to divide up the American watches," Schnipper admitted. In the end many were sold in groups, rare ones with more ordinary examples, and the big guns, including Halim, swept them.

Michael Turner, director of Sotheby's clock and watch department in London, was in New York for the sale. Schinto photo.

ill Andrewes, former curator of the me Museum, is currently a museum nsultant and also advises private col-ctors. In November 1993, as curator the collection of historical and scien-ic instruments at Harvard University, helped to organize the longitude mposium in Cambridge, Massachu-tts, where Dava Sobel, on assignment om *Harvard Magazine*, began to col-t the information that would become r surprise bestseller, *Longitude: The ue Story of a Lone Genius Who Solved e Greatest Scientific Problem of His me* (1995). Andrewes is coauthor with bel of *The Illustrated Longitude* 998). Andrewes and Sobel took part a lecture at Sotheby's prior to the le, and Sobel attended the sale's first y. Together, they have brought horol-y to a mass audience. Schinto photo.

Why the rush to bring this final chapter he Time Museum to a close? There is ity we'll never know about the mu-m's demise and the dispersal of its lection, a process that began in 1986 *is only now* completed. (The museum lf closed its doors on March 12, 1999.) ood, 87 years old, is reportedly in ng health. In his prime he was, by all ounts, an exceedingly rich man who t from interest to interest, clocks and hts among them. (There's no way to ge how rich. Suffice it to say that the ent owner of his family's former com-y, Atwood Mobile Products, is Dura omotive Systems, Inc., with a reported 00 employees, $2.4 billion in sales, a spot last year on the *Industry Week* of the 1000 largest manufacturing panies in the world.)

Since Atwood had become so im-sed in horology, it was a surprise when lecided to retreat so abruptly. Was he sured by family? A widower (de-bed as a "real midwesterner, straight n arrow," albeit by a Manhattanite), he three children, but only a lone daugh-n-law had become involved with the eum and its collection. "There was no r explanation then, and there's no t now trying to guess the truth," for-Time Museum curator William J.H. ll" Andrewes wrote in his catalog es-He reiterated that sentiment in con-ations with us.

It's sad for me that what [Atwood] t so many years building has been tled," Andrewes said. "It could have a wonderful memorial to a great ." Considering the prices, Andrewes ceded that one could view the whole eum enterprise as "yet another incred-successful financial venture" for him. ood was "a natural businessman," in rewes's words. "But in horology he'll be a footnote instead of a headline. re are lots of rich people in the world. few leave their mark. He had made ark, and now it's gone. He never ted to be immortalized, and yet what id inspired so many collectors; it re-invigorated the entire field."

he museum was a must-see for any-serious about horology. Equally true at Rockford, Illinois, about an hour's e west of Chicago, is not exactly a ist spot. This writer finally visited it toward the end of its run, in 1997. (Situated in the lowest level of the Clock Tower Resort and Convention Center, a hotel that Atwood owned, the space was supposedly bomb proof.)

There was once hope that the entire museum would be bought by someone or some entity. In 1999 the city of Chicago bought 492 of the pieces for approximately $5.6 million. It further agreed to purchase 1551 more for approximately $25,000,000. The deal was announced with fanfare in the press. And for three years, 2001-2003, about 450 of those pieces were on display at Chicago's Museum of Science and Industry and at its planetarium.

But efforts to raise the balance of the money failed due to several factors. The sudden death of Justice W. Shepro, the project's chief fund-raiser and key promoter, was the most tragic. Others, such as low museum attendance after 9/11, were probably more decisive. The campaign raised only $761,000. In the end the city decided to resell their pieces at this Sotheby's sale, piggybacking on the final Atwood deaccessioning.

Which pieces were consigned by whom? The catalog didn't delineate, and Schnipper, when asked that question at the preview, waved it away. "Chicago was only a blip," she said.

The preview transformed rooms at Sotheby's into its own temporary Time Museum. One longtime collector said, "You could never build this kind of collection again, since [Atwood] bought a lot of it privately and usually didn't have to compete at auction. Plus, there wasn't the kind of frenzied buying at the high end that there is now. We didn't yet know how high things could go. And many of the people who sold material to him were happy to get the prices they got."

During his decade as curator, from 1977 to 1987, Will Andrewes had a closer look at Atwood's buying habits than perhaps anyone. (A former clock conservator at the old Royal Observatory in Greenwich, England, Andrewes met Atwood there and was hired away.) "Mister Atwood would always pay top dollar," he said, "but knew exactly what he was doing. He was shrewd. I remember seeing dealers take advantage of him, and he always said, 'Don't worry about it,' and he was right, because if it was a unique piece, he wanted it. And in fact the inflated prices he sometimes paid seem minuscule now."

This final sale was billed as "Masterpieces from The Time Museum," just as three previous Sotheby's sales of material from Atwood's collection had been. The first sale was held in New York City in December 1999. At that one, just 81 pieces fetched $28,285,050. (The top lot, going at $11,002,500, was the Henry Graves Supercomplication by Patek Philippe, completed in 1932, and touted even today as the most complicated watch ever made. Runner-up, the Duc d'Orléans Sympathéque, a watch-and-clock combo made by Breguet, circa 1835, brought $5,777,500.) The two other sales took place in 2002, one in New York City and one in London. The total of the three sales was $39,764,589. The grand total of those plus this last one is $57,975,279.

Members of the trade from England and the Netherlands came to New York for the swan song. So did representatives of museums in Germany and Switzerland. Among those museum agents were Arnaud Tellier, director of the Patek Philippe Museum in Geneva, and Moritz Elsaesser of Wellesley, Massachusetts, who advises the Musée International d'Horlogerie in Switzerland's La Chaux-de-Fonds.

British horological writer and artist David Penney said he was a proxy for "only privates, not for any British museum—unfortunately." Others voiced the regret that public collections in Britain, short of funds and of fund-raising skills,

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The rolling-ball timepiece in silver and gilt-brass was made in Germany, circa 1720. Its steel ball rolls along the rim of the dial, disappears from view at "XII," shortly reappears in the same spot, then continues on. Every hour it strikes and the four replaced figures dance. It is 8½″ high, and the dial diameter is 5½″. With competition from Cameel Halim and the phones, the same U.K. collector who bought the Tompion, the Knibb, and the Delander got it for $187,200 (est. $30,000/50,000).

A dealer from the Netherlands, along with several phone bidders, tried for the 18th-century Dutch musical repeating *stoelklok*. But Cameel Halim was determined to have it, paying $33,000, over four times the high estimate. The piece was painted in bright red, blue, and green. Those are trumpeting mermaids flanking its painted dial, which shows the time, date, and moon phases. An hourly tune is played from a pinned barrel with eight hammers on eight bells. It stands 33″ high.

Cameel Halim doubled his pleasure on the 18th-century Swiss musical singing bird-in-a-cage automaton timepiece. As he explained, he owns an identical one with missing parts; now he can have the missing parts copied from the complete one. At 16″ tall, the cage is meant to hang from a high ceiling. To tell the time, one glances up at the enameled dial on the bottom of its base. On the hour, the feathered bird opens its beak, shakes its tail, and sings. It also does so in response to a pulled string. Its repertoire consists of seven tunes played on zinc pipes. Cameel Halim's bill for this one was $90,000 (est. $30,000/50,000).

Papers accompanying this gold ring-watch made by Breguet attest that it was originally sold in 1836 to Prince Alexandre Demidoff, whose family owned iron mines in the Ural Mountains of Russia. Although the ring-watch was equipped with an alarm, the prince probably didn't have to get up for work in the morning. Not the most complicated Breguet creation, it's still a masterwork since the design is on such a small scale; the dial diameter is just 15 millimeters. It sold for $260,000 to a phone bidder who turned out to be Jean-Claude Sabrier (calling in from the gallery's curtained skybox). It was one of several Breguet pieces that Sabrier bought on behalf of a museum planned by Swatch Group, owners of Breguet since 1999. A frequent buyer of Breguet items at high-end horology auctions, Sabrier came to the sale from Paris.

The hands of this *bras-en-l'air* gold-and-enamel open-face sector watch are gilt daggers. The man in the middle of the dial points with them to the minute and hour indicators arranged in half circles—or sectors. At "12" and "60" the man's arms spring back to their starting positions. He also bows his head. Made in Europe circa 1830, the watch sold to a phone bidder for $45,000 (est. $15,000/25,000).

This barking dog watch is one of only 20 known that were made in Paris circa 1810 by J.D. Piguet and P. Meylan. A gold, enamel, and pearl open-face quarter-repeating automaton, it features a dog chasing a fleeing swan. A set of bellows mimics the dog's bark as its head moves up and down. In a fitted red-leather box that states *Chien* in gold on the lid, it sold to dealer Andrew Crisford of the London company Bobinet for $102,000 (est. $40,000/50,000).

appeared not to be represented.

Among the private collectors were members of rarefied fields, such as early American pocket watches and electric horology. Many of them had more knowledge than cash. One said, "Those who know best why this is a mega-dollar watch don't have the money to buy it. And those who do have the money...."

Atwood's wasn't the best horological collection, but it was, given its range, the most comprehensive. Yes, there were tall clocks and watches. But there were also water clocks and fire clocks, a noon gun, a Chinese lacquered-wood incense timekeeper in the shape of a dragon, a 16th-century French striking watch meant to be worn on a belt with sword and dagger, a Persian-made Islamic astrolabe from the 10th or 11th century, and a 1450-1521 green stone Aztec figure calendar stone. There were contemporary pieces too, including a gilt-brass double-axis tourbillon chronometer carriage timepiece, made for Seth Atwood by Anthony Randall in 1980.

In only one session were there clear bargains. That was on the second morning, when 100 lots of scientific instruments were offered. Dutch dealer Mario Crijns of Crijns & Stender bought 11 lots at good prices. One was a 6.7 cm diameter signed (F.F.F.) and dated (1774) German sundial in ivory, wood, and brass. Crijns took it on a single bid, paying $4800 (est. $10,000/15,000).

Two clocks in particular were heaped with historical significance, and they became the two top-dollar lots. Both were bought by Richard Garnier, a dealer from Kent, England, on behalf of a private English collector ("a known entity in England," according to Will Andrewes) who did not attend the sale. One was a high-precision tall-case regulator made by John Harrison and his brother, James. The second one was Thomas Mudge's timepiece, known as "Mudge Green." (For details on the notability of these pieces, see the captions.)

Garnier brought another of his U.K. collector/advisees to the sale with him. They sat side by side. Together, they spent almost exactly $1,000,000 more than Cameel Halim: $4,714,260 for 13 lots, five of them in the top ten. But they didn't cause the same kind of stir that Halim did.

Schnipper claimed afterward that Halim's impact on the auction wasn't entirely unexpected. "He had given us a heads up that he was very interested," she said. "But you never know where that's going to go or what competition he'll have. In a way it was a surprise that he was so successful and so intent."

Andrewes had no idea who Halim was before that first morning. He had this to say about him: "I think we were all rather amazed. And it's always unnerving when there's a new kid on the block, especially one who looks as if he knows what he's doing. He strikes me as a man who doesn't ask advisors, and yet somehow he knew what to buy. It was uncanny. But I think he had a natural instinct."

Halim certainly overpaid for some items, unwittingly or otherwise. (And some bidders did appear to run him up, out of sport or spite.) "It happened to Atwood," Andrewes said, "but he's the one who's laughing on the way to the bank now."

Andrewes continued, "What Mister Halim intends to do with the pieces he has acquired I don't know. But I think he has a considerable responsibility now. You can't just store them. They need the right conditions—temperature and humidity. Hopefully, he will form a link with a museum."

We spoke to Halim over the course of the auction's three days. He is a congenial man in his fifties who wanted to make the point, in this political climate, that he is an Egyptian *Christian*. He wore his right arm in a sling, because of a muscle injury, and laughed heartily when told the joke going around was that he had strained it bidding repeatedly at the last auction he'd attended.

Andrewes had guessed right; Halim has no advisors. Nor does he have plans for his purchases, except that he will store them for a year in Ann Arbor, Michigan. Asked if he would open a museum someday, he said no. "Too difficult, and too costly." He, however, will contemplate loaning them to museums.

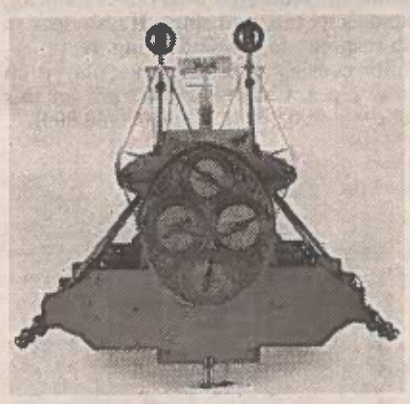
Halim acknowledged the irony that he is a Chicagoan, considering that the pieces almost found a home there. Had he been involved in the city's fund-raising efforts? No. He had learned about them too late.

Asked why he hadn't gone for the two big items, the Harrison and Mudge Green, he said, "Budget!"

Halim bought the first lot and the last at this auction. He began with a 16½" high German iron Gothic turret clock, circa 1500, for $6000, and he ended with the Time Museum's reference library, approximately 670 books and 2700 related trade and catalog publications, for $51,000. "He had *better* buy the library," said Fortunat F. Mueller-Maerki of Sussex, New Jersey, who was the underbidder on behalf of the National Watch and Clock Museum in Columbia, Pennsylvania. "He's going to need it."

For more information, contact Sotheby's at (212) 606-7184 or visit the Web site (www.sothebys.com).

This one really does have all the bells and whistles. A world time clock whose basic mechanism is a flatbed turret clock with four trains, it is housed in a 10′ tall carved oak case that resembles a cathedral. At noon every day the 12 apostles parade in and out of doors in the third tier. Every year at midnight on New Year's Eve a trumpeter appears at the left on the fourth tier and blows his horn. There's more: at varying intervals an angel turns over an hourglass, planets orbit, a pair of terrestrial globes revolve, and so does a lunar globe. The list goes on. It took Christian Gebhard, a German astronomy and mathematics professor, 30 years (1865-95) to complete it. Without much competition for it, the bidding went swiftly. It sold at $142,400, well within estimate, to a woman in the room who was acting as an agent.



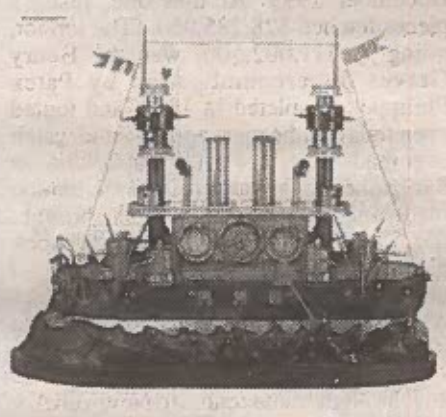
H1, as it's known, was the first device that John Harrison developed to solve the longitude problem. It's in the National Maritime Museum in Greenwich, England. Leonard Salzer (1922-1990), a British toolmaker, engineer, and model enthusiast, built a full-size (64 cm tall) replica of it in the 1970's, working only from drawings he made by studying that original sea clock behind the glass of its museum case. Salzer's feat of benign piracy came to the attention of the horological world, and Seth Atwood commissioned him to make another H1 for the Time Museum. (Salzer was permitted to take H1 out of its museum case to take measurements for the second one. The shy Salzer hadn't even asked for that permission when he decided to make the first one.)

Here is that second one, completed in 1984. When it sold at this auction to Philip Whyte, director of Charles Frodsham & Co., Ltd., London, at more than eight times the high estimate for $904,000, some people said, incredulously, "For a reproduction?" But that was missing the point. Making a replica of H1 takes the same level of mechanical genius that Harrison possessed. The other Salzer H1 is now in Greenwich with the Harrison original.

Hezekiah Conant (1827-1902) of Pawtucket, Rhode Island, was an inventor of other things before he turned to timekeeping devices. He patented an improvement to the Christian Sharp rifle in 1856. He built an industrial-size sewing machine in the same year. Soon he invented new ways of making thread, and by 1897, his Conant Thread Company employed 2000. In the meantime, he patented an ingenious isochronal regulator whose multiple pendulums, although driven by separate escapements, were geared through a differential mechanism to a single-center wheel. The design was meant to average out the errors of a single-pendulum clock.

The four-pendulum eight-day boxed chronometer pictured here was made to Conant's specifications circa 1887 by Tiffany Clock Makers. The company was a subsidiary created by Tiffany to produce and sell high-quality clocks between 1879 and 1891. Jim Cipra of Long Beach, California, American section president of the Antiquarian Horological Society, paid a within estimate $54,000 for it. (Note: If you don't understand the above explanation or any other technicalities for that matter, don't worry. "There's very little in horology that's man-on-the-street," said Fortunat Mueller-Maerki.)

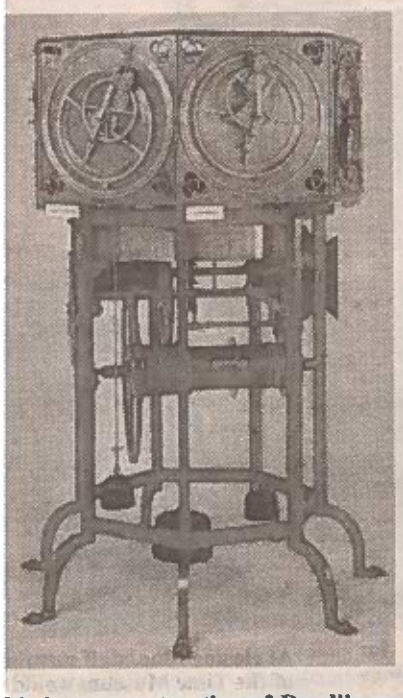
An early marine chronometer by France's venerable Ferdinand Berthoud (1727-1807) sold to a bidder on the phone for $164,800 (est. $150,000/250,000). The innovation on this circa 1777 piece is the gridiron compensation device, which Berthoud based on George Graham's principle for compensating pendulums. In each situation, something must compensate for changes in temperature that affect a clock's accuracy. And these changes fluctuate nowhere as greatly as at sea. For this timepiece, in a gimbaled walnut box, Berthoud fashioned alternating bars of brass and steel on a grid to weather—literally—frigid temperatures one month, torrid ones the next. The dial diameter is 15 cm.



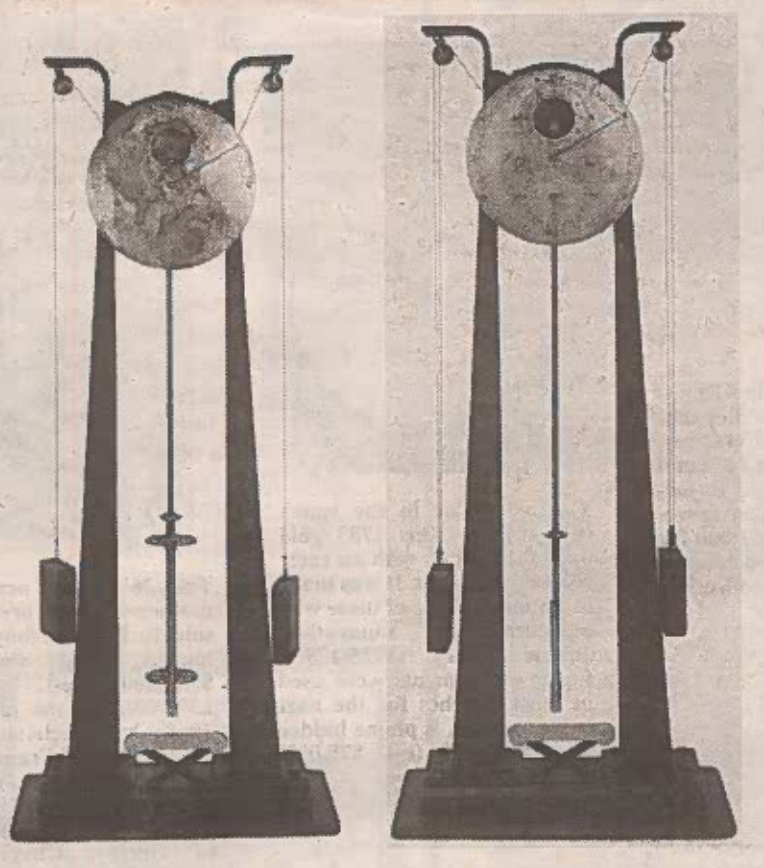
The gun turrets revolve and so does the propeller on this circa 1895 French automaton timepiece in the form of a battleship. Its height is 25", and the diameter of the central clock dial is 2¾". The smaller dials are a thermometer and an aneroid barometer. The choppy sea that decorates its base is painted metal. A Westchester, New York, dealer wanted it; so did dealer Peter F. Planes II of Miami and New York City. It sold for $90,000, almost four times the high estimate, to a third, unidentified room bidder, who bought two other French automatons from the same period: a second battleship ($84,000) and a lighthouse with a revolving beacon ($13,200).

Jon Hanson and Cameel Halim dueled over a pair of rare American watches. They were produced by an Illinois firm, the McIntyre Watch Company. Hanson paid $19,200 for the circa 1911 gold open-face watch. Halim spent $51,000 on the circa 1912 gold open-face watch with wind indicator.

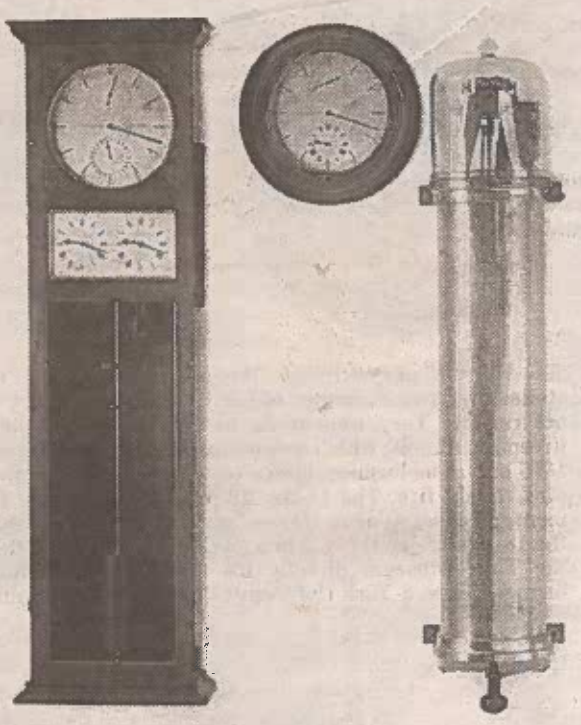
It was a surprise when a London dealer bought the 16-size American Waltham Watch Company repeating split-second chronograph with register in associated gold-filled hunting case. Most collectors believe that there is little interest in American horology in England. The man paid $78,000 (est. $8000/12,000), with competition from Cameel Halim. Waltham produced seven different repeaters, starting in 1886-87. This one, to judge by its serial number (3793206), is dated circa 1888 and believed to be a unique example.



his is a reconstruction of Dondi's as-
arium, a complicated astronomical
ock that was built in the mid-14th
entury by Italian clockmaker
iovanni de Dondi (1318-1389). The
riginal no longer exists, but Dondi left
detailed and illustrated manuscript; it
the earliest surviving description of a
echanical clock. This model, 43½″
ll, was made by Thwaites & Reed,
ondon, circa 1970. A phone bidder
aid $220,800 for it (est. $15,000/
5,000).



A precision astronomical regulator with detached gravity escapement, made by E. Howard & Co. of Boston, went to the phone at $120,000. Cameel Halim was the underbidder, but he got the next lot, its fraternal twin: an E. Howard precision regulator with four-legged gravity escapement. Price: $45,000. It's a shame that they were separated. Together they were used as the standard timekeepers at Princeton University's observatory from 1877 to 1927. Height of each: 4′9″. Diameter of each engraved silver dial: 12½″.



Another classic electric timepiece—a free pendulum astronomical regulator, made in London by Synchronome Co., Ltd., circa 1924—was bought in the room at $220,800 (est. $60,000/95,000). It was invented by two Englishmen who figure prominently in the history of electric horology, William Hamilton Shortt (1882-1971) and Frank Hope-Jones (1867-1950). The lot actually consisted of four items: a 49″ tall master clock enclosed in a glass-domed copper cylinder vacuum tank, a 55″ tall mahogany-cased master clock, an inking chronograph (24″ long), and a round (15″ diameter) wall slave clock. As the catalog noted, the accuracy of the Shortt/Hope-Jones free pendulum system was such that they were used as timekeepers at the Greenwich observatory from 1924 to 1945 and elsewhere in observatories around the world until superceded by quartz technology.

his was the best of the
merican tall clocks on
ffer: a circa 1765 David
ittenhouse in an 8′½″
nahogany case. Fewer
han a dozen clocks by
ittenhouse (1732-1796)
re believed to have been
nade. The dial has an en-
raved signature plaque
D. Rittenhouse Norri-
on"—Norriton meaning
Norristown, Pennsylva-
ia. But there were
loubts about the origins
f the case. "There may
ave to be an an-
ouncement," Sotheby's
Michael Turner said. In-
eed, there was one.
The movement and case
ave been later associ-
ted," auctioneer Ian Irv-
ng told the audience just
efore the lot was of-
ered. At $65,000,
Cameel Halim dropped
ut, and it went to an-
ther American collector
n the room at $84,000.

This 23¾″ tall gilt-brass quarter-striking automaton elephant clock was made in Germany circa 1630. The elephant's tusks and its adornments are silver. Its painted eyes move. Between its front legs, a little dog weaves in and out when the clock strikes. Below that is another animated scene connected to the strike train in which a man is bound to a tree trunk around which a lion, tiger, and leopard circle. Three phone bidders wanted it, and one might have got it if not for Cameel Halim's change of heart. Dropping out at $390,000 on the hammer, he returned to take it at $512,000. It was his most expensive purchase.

This hydrogen maser timepiece was made for Seth Atwood by Robert F.C. Vessot of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Massachusetts. It went to a phone bidder at $27,600, "only" 15 times its high estimate. Mueller-Maerki was the underbidder. At the time of its production, circa 1975, horologists considered it to be the most accurate timepiece in the world. The name maser is an acronym for Microwave Amplification of Stimulated Emission of Radiation. The technology was developed in 1960 by Norman F. Ramsey (who later shared the 1989 Nobel Prize in physics); Daniel Kleppner, now a physics professor at Massachusetts Institute of Technology; and H. Mark Goldenberg. Height: 75¾″.

Fortunat Mueller-Maerki paid $33,000 for the circa 1850 electric regulator that was made to the design of Scotsman Alexander Bain's patent. The diameter of the engraved silver dial is 12″. The height of the mahogany case is 4′7½″.

Mueller-Maerki was bidding for the Deutsches Uhrenmuseum in Furtwagen, Germany. "Call it Germany's national clock museum," he said, adding, "The museum is planning a major expansion of its exhibit on electric horology, and they badly needed that clock in order to anchor that whole section. Bain [1811-1877] is considered the father of electric horology. He *invented* electric clocks. And so we're very lucky that it didn't go to Chicago"—i.e., to Cameel Halim.

Mueller-Maerki bought for himself, among other things, a Magneta electric clock, also pictured here, on one bid for only $1800. It's a 7′5″ mahogany tall-case master regulator that was made in England circa 1910. It works according to the Magneta system, invented by Martin Fischer of Zurich. "I hadn't planned on buying that one; I hadn't even examined it during the previews," Mueller-Maerki said. "But as you may recall, it was one of the few lots when nobody bid. It was estimated four to five [thousand]. And eventually they said, 'Any offers at all?' I was probably the only person in the hall who knew what it was. It's a very special timepiece. Those usually go for ten thousand and above, if you can find them. But there aren't many people collecting them."

Just 4⅝″ tall, the 1563 German pillar dial by Wolfgang Fugger sold to a phone bidder for $78,000 (est. $15,000/20,000). Made of silver, brass, and rock crystal, and partially gilded, it contains a spiral hour scale as well as a calendar on parchment scroll. The scroll lists the calendar of saint's days on one side, and on the other, rules for use of the dial. According to the catalog, "the entire top section can be rotated to set the gnomon to the correct time of year, and when the shadow of the gnomon falls vertically on the hour scale, the tip of the shadow will indicate the correct time." Got that? (Useless on cloudy days, of course.)

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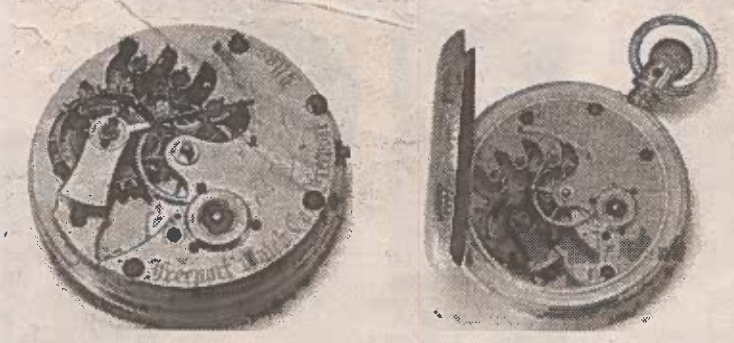

Jon Hanson of Wellesley, Massachusetts, tussled with Cameel Halim over two examples of early American pocket watches that are rarities. They were made by the Freeport Watch Company, Freeport, Illinois, which was in business during the years 1874 and 1875 only. The business closed on October 21, 1875, the day its factory caught fire. The 18-size 19-jewel Freeport No. 1 (just movement, no case) went to Hanson at $48,000. Halim paid $51,000 for the 18-size 15-jewel No. 2 in a gold hunting case. Both had come to the Time Museum directly from the James Arthur collection, formerly of New York University, later of the Smithsonian.

The top seller in the watch category was this 1783 gold open-face watch with an early lever escapement. It was made in London by one of those who pioneered the innovation, Josiah Emery (1725-1796). Lever escapements were used in most watches for the next two centuries. A phone bidder paid $260,000 (est. $75,000/100,000) for this one.

The 26½" tall ormolu and mother-of-pearl orrery clock sold to Bobinet, buyer of the barking dog watch, for $153,600 (est. $150,000/250,000). It was made circa 1840 by Zacharie Raingo (1775-1847) of France. Orreries are clockwork models of the solar system. They are named after the Fourth Earl of Orrery, Charles Boyle (1676-1731), for whom one was made. Their inventor was George Graham (1674-1751), a Tompion apprentice. Graham later became Tompion's partner, and when Graham died, Tompion's tomb in Westminster Abbey was opened, and the former student was buried with his one-time mentor. A 1750 George Graham gold pair-case watch with cylinder escapement was sold at this auction too. It was another purchase by the Tompion, etc. buyer, at $21,600 (est. $5000/6000).

At closing time, staff members of the Time Museum would check inside this 8′ tall Japanese pyramid clock, since a small person could use it as a hiding place. Known as a *yagura-dokei*, it has an iron movement and can be dated to 1776 from an inscription that states, in translation, "fifth year of An'ei." Reportedly presented by the tenth shogun, Ieharu Tokugawa, to a relative, it is decorated with a three-petaled pavlownia blossom, the crest of the Tokugawa family. Now Cameel Halim owns it. His competition from the phones and from collector Louis Christina drove the price to $316,000 (est. $100,000/200,000).