

# TRAPPE HIGH SCHOOL MASTER PROGRAM CLOCK

1927 - 2024

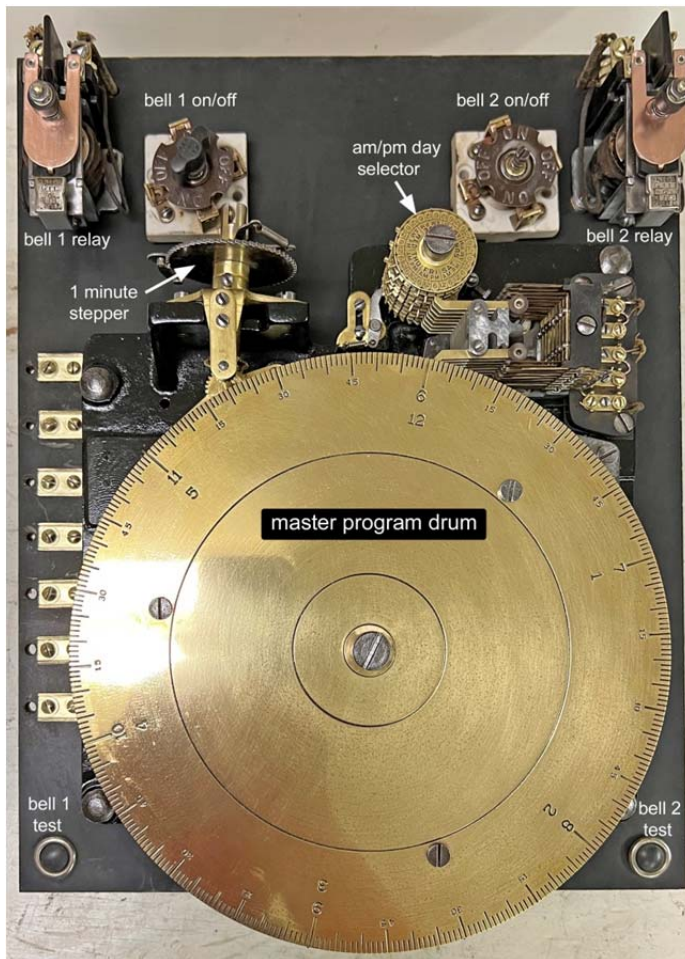


BY

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## ABOUT THIS CLOCK

This clock is an International Time Recording Co. (ITR) master program clock, model 677, serial number 335614 made in 1927. ITR would later become International Business Machines Co. (IBM). This clock was used in the new Trappe High School building to automatically control the school bells from around 1930 to about 1945 after which the building became Trappe Elementary School and the clock was never used again, although it remained on the wall in the third floor office space. Perhaps it was damaged or just wasn't needed any longer. The elementary school was closed 1971. The building changed hands several times then, following several unsuccessful attempts to repurpose the building, it was demolished. It is not known when the clock was removed from the building or what happened to it after 1971 until it was discovered during the "COVID years" in one of the Nelson Auction Gallery storage buildings on RT. 50 when that property was being sold. It was then given to the Rural Life Museum of Trappe, presumably with the hope that something good would happen to it.



A master program clock can control electric bells at preprogrammed times such as for the change of classes at a school, or signaling shift changes at a factory. This clock is designed to control two independent bell circuits. The program unit divides the day into four 6 hour segments, 2 AM and 2 PM. The large brass program drum contains separate disks for each time segment for a total of 8 disks (4 for each of the two bell circuits). The program drum is stepped ahead in one minute increments. Small brass tabs are inserted in each disk to trigger when the bells activate. This is an 8-day clock. It has a deadbeat escapement and is regulated by a pendulum beating at 72 beats per minute. Two powerful mainsprings power the clock which in turn powers the master program unit. The face of the clock has two pointers indicating approximately how much power is left in the springs and when it is time to wind the clock.

This appears to be an early version of the ITR master program clock. Later models used electric solenoids to advance the master programmer every minute, and to automatically wind a small mainspring to power the clock movement. These early electric self-winding clocks still used a pendulum and were likely more accurate and reliable than early electric services. Trappe did not have full time electric service until 1930.



## RESTORATION WORK BEGINS

Greenfield Clock Shop agreed to restore the clockworks to running order, and the museum arranged for Artisans Perry Dobson and Brian Beecher to repair and refinish the wooden case. Restoration began on Sept. 09, 2023. The case was seriously degraded from exposure to moisture, insects, and rodents, and all the steel hardware was badly rusted. In addition to being filthy, all of the mechanical parts were heavily rusted or corroded, the minute hand was missing, and one of the two mainsprings was broken and the other seriously rust damaged. The winding wrench was missing. The clock requires “T” handle socket type wrench and a very strong hand to wind the powerful springs. The clockworks was separated from the case and taken to the clock shop, and Perry and Brian began work on the case restoration.

A pair of used mainsprings from a similar ITR punch clock were obtained, and a replacement minute hand and winding wrench were hand made. The clockworks and master program unit were completely disassembled and cleaned, bushings installed where needed and reassembled. The refinished case and the refurbished clockworks came together in May 2024. Although the master program unit is not currently connected to any bells, all of the electrical parts were disassembled, cleaned, and adjusted, and checked, and the clock is fully capable of operating as it originally was designed. **When setting this clock one must NEVER turn the minute hand backward (anti-clockwise), not even by one minute or the electrical contacts will be seriously damaged.**

## TRAPPE HIGH SCHOOL

Trappe built a new high school that was dedicated on December 7, 1922. An article in the *Easton Star Democrat* on March 12, 1922 stated in part, “The new school will be the ‘last word’ in school buildings in Maryland embodying every known modern feature to give comfort and convenience with all health safeguards added”. On September 23, 1922 the paper stated, “It is modern in every respect, divided into six classrooms, assembly hall, library, cloak rooms, toilets, and is equipped with steam heat and electric lights.... The system of ventilation surpasses any other school in the country...”. It is interesting that the school reportedly had electric lights when Trappe did not get full-time electric service until Trappe connected to the Oxford electric plant in 1930. Before then Trappe reportedly had its own small electric plant that only operated for a few hours after dark. Perhaps the school had its own Delco or similar engine powered electric generator? This master program clock wasn’t made until 5 years after the new school opened and was probably part of a group of items that were added around 1930 that were not funded with the original construction. The building housed the Trappe High School until 1945 after which high school students were bused to Easton. The building subsequently became the Trappe Elementary school housing grades 1 through 6, until 1971. After its days as a school ended, the building was eventually acquired by The Town of Trappe Inc. and several unsuccessful attempts were made to repurpose the building before it was demolished in 2006 and a park was created where the building stood.

## REMEMBRANCES

My first memories of the Trappe High School building are from about 1947 or '48. It was, or was about to become, the Trappe Elementary School. My dad was working for C. Albert Matthews and was replacing the old toilets and installing new bathroom fixtures except for the old "horse trough" urinals in the boys room. He showed me the building I would soon be attending in first grade and all the work being done. A "modern" kitchen was equipped on the second floor. Also on the second floor was one class room, a library that doubled as a cafeteria, and the auditorium. On the third level, behind the large round window high over the front door was a small office, probably the principal's office for the high school. There was another small room on the third level behind the large round window high over the back door. A doorway connected this room to the wings of the stage. I entered school there in the first grade in 1949. The cafeteria had pretty good food and the first grade had "room service". The steam heat radiators got really hot and felt good coming in from the cold except on a few occasions where the janitor had a touch of the grape and didn't show up to put coal in the boiler. It burned soft coal and smoked like an old steam train. We had recess in the morning and afternoon and an hour lunch/recess period at noon. If it was a nice day and everyone was behaving, sometimes they would let recess run over a bit. There was a small table in the first floor hallway next to the door to the boys room and on that table was "the bell", a small hand bell about 3 or 4 inches in diameter. The principal, or some kid who was given the honors, would ring the bell at the start and end of recess or lunch period. We had no working automatic bells but there was an old electric bell outside the large round window on the back of the building that no longer worked. It would have been connected to this clock at one time.

When I was in the third grade our principal, Miss Katheryn Leonard, took me up to that little office space on the third level to instruct me on how to operate the ditto machine, which lived on a small table in that room. It was an old hand cranked machine with a brown bottle that had to be filled with some sort of volatile (probably toxic) liquid that smelled a little like booze and could make you feel funny if you sniffed the wet papers too much. I got pretty good at running that old machine and I was frequently asked to do so.

The ditto machine was not the only thing interesting in that room. On the wall behind the ditto machine was this huge and beautiful old clock. It was like nothing I had ever seen before. It had a large glass front and a clock face, but in its belly was this big brass disk and a lot of other gadgets that I had no idea at the time what were. I did know that it had a pendulum and was not running. I asked my dad about it and that's when I learned that it was a special kind of clock that rang the school bells. I knew that I wanted it but they didn't let me have it, which was probably a good thing because it weighed a lot more than I did, and I would probably have just taken it apart and lost the parts. After the building was demolished I asked about the clock hoping that perhaps it might be for sale but no one seemed to know anything about it so I presumed it had been disposed of. Then last year I was asked to come to the museum to give an opinion about "an old clock". I immediately recognized it and was so delighted to see it again and to have the opportunity to restore it to running order. It now has a loving home and a new life at the Rural Life Museum of Trappe, MD, Inc.