

Grapevine Street Clock Project

A Lone Star Chapter 124 Restoration Project*



O. B. McClintock Street Clock after restoration by members of Lone Star Chapter 124

The Lone Star Chapter 124 is headquartered in the Dallas/Fort Worth Metroplex and has been searching for interesting projects to get more public exposure. We believe that this restoration project is our first step in meeting that goal. Grapevine, Texas is located in the center of the Dallas-Ft. Worth Metroplex and has a tremendous tourist draw of over 200,000 people annually; in addition, the Chapter has used the Grapevine Founders' Building across the parking lot from the Street Clock to hold meetings and education classes for the past five years.

****Lone Star Chapter 124 is a chartered member of the
National Association of Watch & Clock Collectors***

Written by Fred Tischler

Edited by Pam Tischler, Phil Gregory, Bill Edwards, Chuck Edwards and John Acker

Grapevine Street Clock Project

A NAWCC Lone Star Chapter 124 Restoration Project

Summary

In 1995, an O.B. McClintock Street Clock was the pride of the City of Smithville, Texas when a garbage truck made a wide turn at an intersection and ran over it doing major damage to the frame, pedestal, dials and mechanisms. The clock was then given to one of Lone Star Chapter 124's members who donated it to the Chapter in 2009, with the commitment that it would be restored and displayed in a public place in the Dallas/Ft. Worth Metroplex. The Chapter Board accepted the clock and a restoration team was established to complete the project, which was a major challenge considering the condition of the clock and that the restoration was completed in one year.

History

The known history of the clock goes back to the mid-1960s when Byron White, a member of Chapter 124, purchased the Street clock from a Savings & Loan in Olney, Texas; the clock did not have a separate master clock, but was timed by an electrical motor/controller that drove four slave units. Prior to that date, the clock's legacy is not known.

After Byron purchased the clock, he moved it to Pantego, TX, (just southwest of DFW Airport) to the Bible Church parking lot where he worshiped. The clock remained in the church parking lot until 1994 when the church decided it was no longer needed, so Byron took it back and stored it on his drive-way.

In 1995, Byron's nephew-in-law was on the City Council of Smithville, Texas and the City was getting ready to celebrate its 100th anniversary. Byron offered the clock to the City and they accepted it. The advertising panels were changed to display "Smithville Est. 1895," and the Vietnam Veterans also did some work on the outside of the case. Shortly afterward, the clock was installed and dedicated on a median where three streets intersected.



The Street Clock when it was in Smithville, Texas

The Clock and a Garbage Truck Collide

In 2005, a garbage truck made a wide turn and crossed into the median where the clock was mounted and wiped it out. Major damage was done to the frame, dials, movements and pedestal. Again Byron was called because the City decided the clock was totaled and they no longer needed it. Later, the City settled an insurance claim with the garbage truck company.



The McClintock clock after the garbage truck crashed into it in Smithville, Texas.

Upper Left: The clock frame structure was bent and warped

Upper Right: The copper door panels were warped and all dials were broken and one panel survived

Middle Left: Example of broken dials

Middle Right: Bonnet was bent and warped

Lower Left: Top part of frame was badly bent and registers were mangled

Lower Center: The copper bonnet and skirt were badly damaged

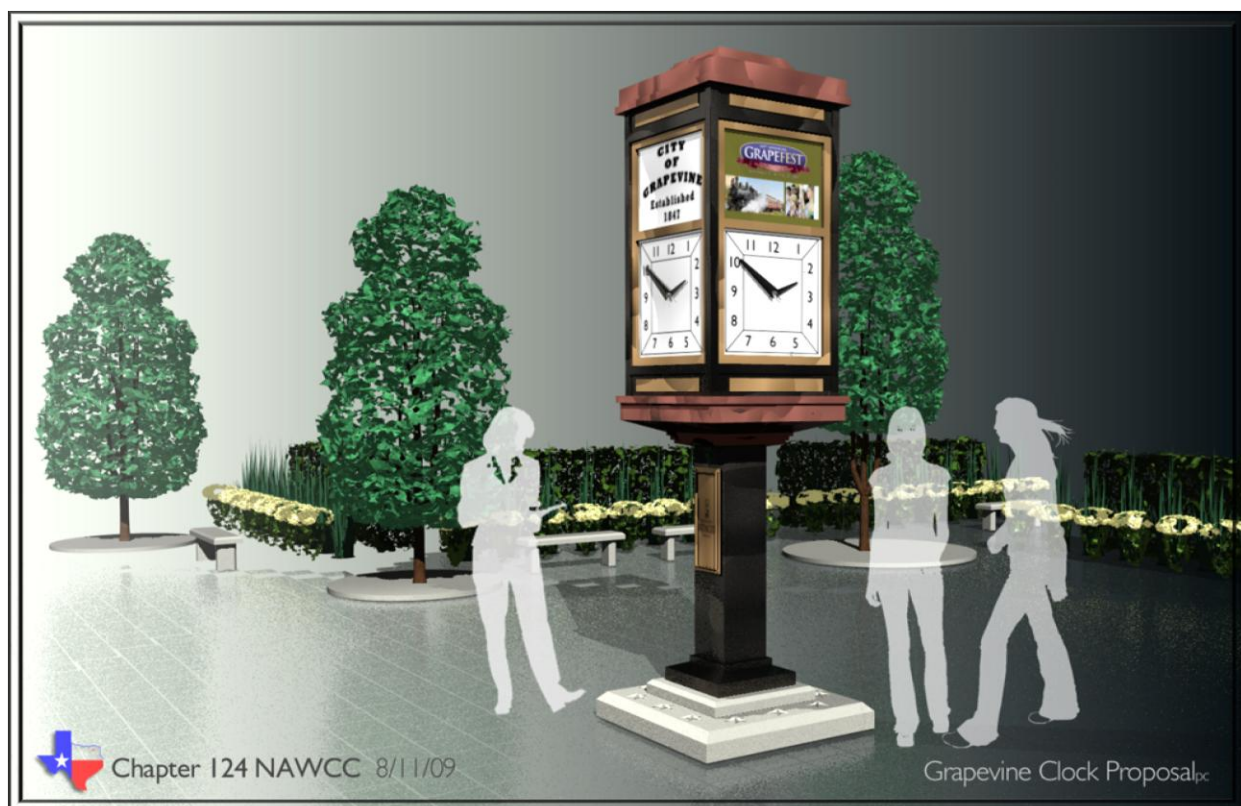
Lower right: Dent in lower part of the pedestal

Shortly afterwards, Byron and Bill Edwards (another Chapter 124 member) drove to Smithville to decide the final fate of the clock; considering the clock's condition, it was not an easy call to bring it back, but they did bring most of it back to Bill's shop in Glen Rose, Texas. About a month later, James and Joey Edwards (Bill's sons) went back to Smithville to get the pedestal.

Byron Donated the Clock to Chapter 124

Byron thought he had a clock on its deathbed, however, he decided to ask the Chapter 124 Board if they wanted it. In 2009, the Chapter agreed to take the clock and restore it for some entity in the Dallas/Ft Worth area that was willing to display it in public.

So once again, Byron gave the clock away for a worthy cause. Shortly thereafter, the Chapter 124 Board formed a Street Clock Restoration Committee chaired by Bill Edwards. Byron and Annette White (right) were assigned the task of finding a satisfactory clock recipient the Chapter could donate it to. Since the Chapter was very active in Grapevine, Texas and used one of the Grapevine Convention and Visitors Bureau's buildings for their meetings and educational



Peter Crum, a Chapter member, made this graphic for the proposal to the City of Grapevine, Texas

programs, they were approached about receiving the clock.

The City of Grapevine jumped at the chance to receive a 13 foot, free standing street clock, free of charge for their Train Depot side yard where all passengers exiting and entering the depot area were exposed to it. The restoration team wrote a proposal and agreement, which delineated the conditions in which Grapevine would receive the clock from the Chapter. It stated that the Chapter was donating the clock to the City with no money exchanging hands and the clock would belong to Grapevine with no future liabilities to the Chapter.

Now the task was upon the Chapter to restore the clock to its original appeal so the hundreds of thousands of people that will see the clock each year would marvel at its presence. The Chapter Board approved a budget of \$10,000 for the street clock restoration.

Restoration Phase #1

In June 2009, Pam Tischler became the Chapter Board President, and requested that Bill Edwards develop a restoration plan for the clock and to have it on display at the Chapter's Regional meeting in Mesquite, Texas in March 2010. That request was received by Bill with a lot of enthusiasm and work began immediately.



Bonnet and Bottom skirt

These two pieces of copper were torn and bent in many places and the cost to repair them was prohibitive, so the restoration team decided to have new ones made. A

metal company in Joshua, Texas was awarded a contract to have a new bonnet and skirt made of galvanized metal and the restoration team would apply a finish coat to it later.

The copper skirt damage was not repairable, so a new bonnet and skirt were made.

A New Clock Movement Was Purchased

After this clock was purchased from the Olney bank it was not powered by a separate master clock, but with a motor, controller and a slave behind each dial. The motor, controller and two slaves were destroyed by the garbage truck.

The restoration team decided that a reliable clock mechanism would be paramount in a clock that was going to be given to an organization with little or no clock knowledge, and probably would not have a staff to keep setting it every time the electricity cycled. With that in mind, an Electric Time Controller, Model 99B-M1, was purchased along with four compatible slave movements. This controller is equipped with a radio receiver that will update the slave units regularly with the correct time. If the A/C power is cycled, the



Right: The Electric Time Model 99B-M1 controller
Upper: One of the four clock slave units



controller has enough intelligence to automatically reset the four slave units to the correct time even if the electricity has been off for days.

Grapevine Specified the Dials and Advertising Panels

The City of Grapevine was given the option to choose a design for the four clock dials and advertising panels. Since the clock would be located next to Grapevine's Vintage Railroad Depot, they wanted the dials and panels to have a historic railroad theme. So, the four dials took one of the basic McClintock designs with the Cotton Belt Route logo above the hand arbors. One panel advertised the Grapevine Vintage Railroad, which has a regularly scheduled tourist train that travels between Grapevine and Ft. Worth. The other panel depicts the City of Grapevine, which was established in 1844.

Chapter member, Peter Crum designed the dial and panel



The dials, advertising panels and logos that the City of Grapevine chose for the clock

layouts and member Phil Gregory constructed them.

In September 2009 the Restoration Team Met During the Chapter Picnic.

Each year the Chapter has a picnic at Chuck and Marion Edwards' home where there is plenty of room for sports, swimming and of course, plenty to eat. The members bring a dish to share and the chapter provides the meat and soft drinks. The picnic offered a great venue for the members to hear details of the restoration plan and gave them an opportunity to volunteer to apply their expertise to this Chapter project. It turned out to be a very successful day for the project with an established plan, lots of communication and more Chapter members assigned tasks on an overall schedule.

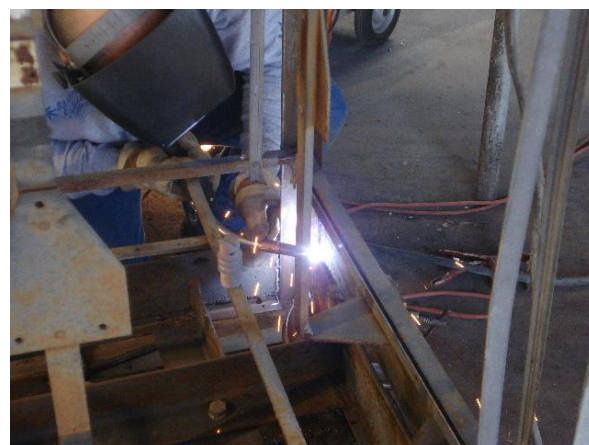


Left: Phil Gregory (L), Byron White (M), and Bill Edwards discussing the restoration plan at the Chapter picnic.

Right: The only Smithville panel to survive the garbage truck crash.

Frame Hauled to Waco, Texas for Structure Rebuild in December 2009 by Bill Andrie

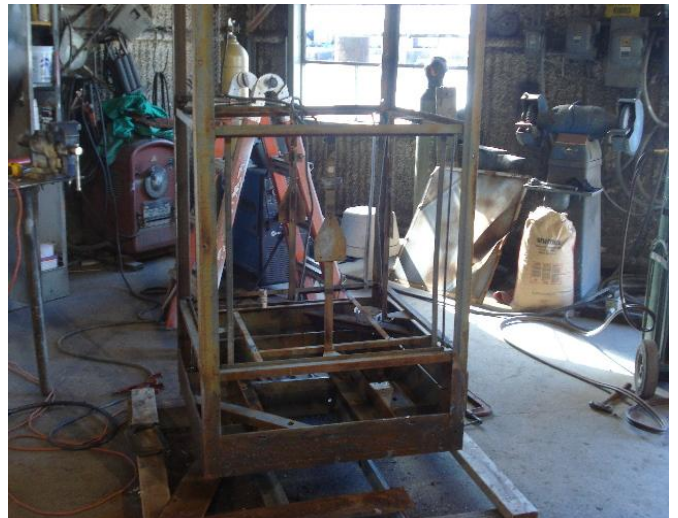
The clock frame took a bad beating when the garbage truck crashed into it. The entire frame was twisted out of square and required major structural renovation including removal of the angle-iron side post for straightening or replacement. The top and bottom rectangular frame was badly bent and out of square too. Bill Andrie, a Chapter member, started cutting deformed pieces out with a torch and either straightened them or replaced them with new material. Lots of cutting, welding, and use of a hydraulic press, grinding and painting went on for most of the month of December.



The frame was so badly deformed out of square, that major structural parts had to be cut away, straightened or replaced and welded back in.



Angle iron frame posts and top and bottom frame parts were badly bent and deformed requiring major reconstruction



Left: The right post of the frame was so badly bent that it was replaced with a new angle-iron piece.
Right: The bottom parts of the frame were removed and new steel bars replaced the bent ones



On the left, Bill Andrie is welding parts that were broken, and on the right, a weld used to attach a new piece of steel is being finished with a hand grinder.



On the left, a hydraulic press is used to straighten steel plate after it was cut from the frame. Lower left, Bill Andrle is finishing the steel surface and on the right he is attaching parts with fasteners after the frame structural work is finished.



In January 2010, the Frame was Moved Back to Bill Edwards' Shop in Glen Rose, Texas

After the major frame structures were completed, the clock began to take the shape of its old form and now it was time to move on to the next phase of the project. Bill Edwards traveled to Waco with wife, Karen, so he could bring the clock back to his shop in Glen Rose to fit the badly bent doors in place on the frame.



On the right, Bill Edwards and Bill Andrle use a fork lift to load the clock frame for transportation back to Glen Rose. On the Left, Bill Andrle and Karen Edwards have the clock secured for travel.

In February 2010, the Door Frames were Straightened

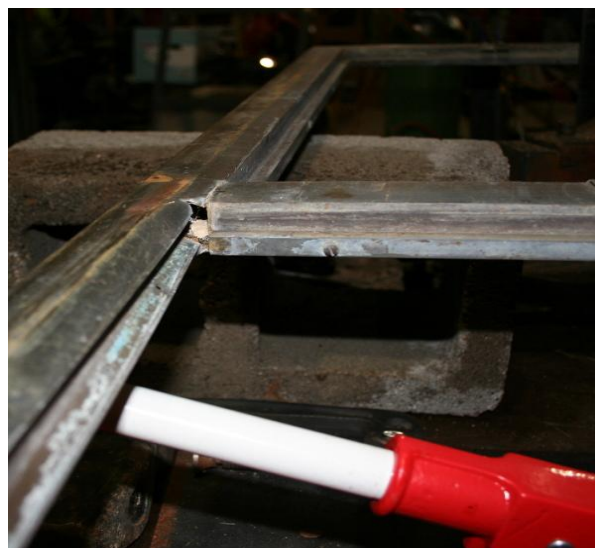
Due to all the hauling the restoration team projected, Bill decided to purchase a two-wheeled trailer and mount the clock on it for easy transportation.

The door frames were so badly deformed that the new dials and advertising panels would not fit nor would the doors close and open properly, so Bill rented a hydraulic press and proceeded to return them to their original shape.



This series of pictures shows Bill Edwards meticulously applying a hydraulic press along with tooling fixtures to straighten the four badly distorted door frames.

Back at Bill's Glen Rose ranch, a herd of longhorns are puzzled by the strange looking frame on Bill's new trailer

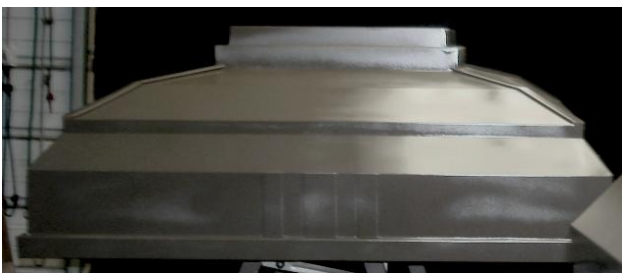
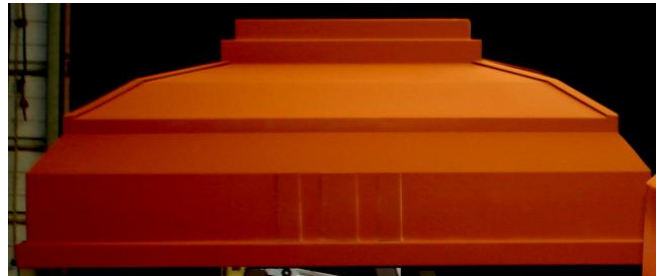
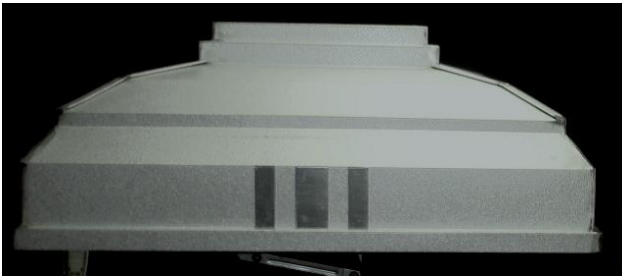
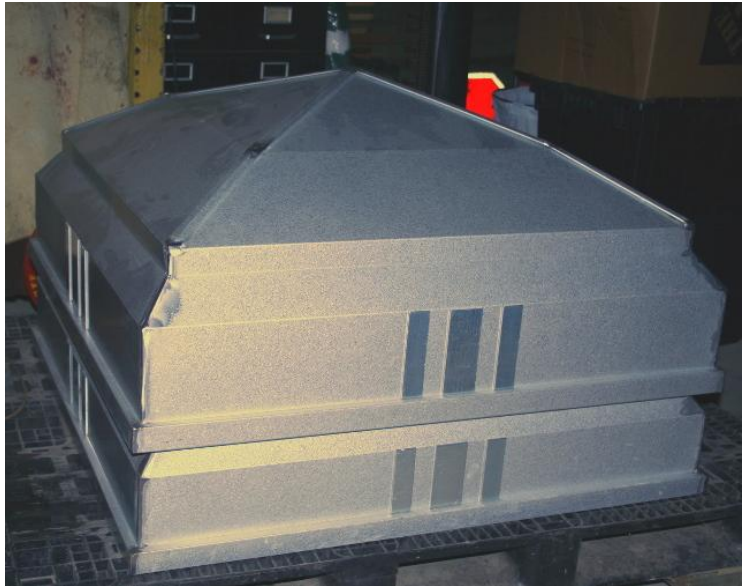


The New Bonnet and Skirt were completed in February 2010

This top and bottom of the clock housing is shown on the right as it was delivered from the metal contractor, which built the parts according to the specifications developed by the restoration team.

In February 2010, Chuck Edwards Painted the Bonnet and Skirt

The restoration team was fortunate to have Chuck Edwards, a Chapter member, who is an expert in paint finishes with The Sherwin Williams Company. The parts were moved to Chuck's work shop where he proceeded to apply his talents in getting a finish that would look like the original copper patina and be durable and rugged enough not to rust or oxidize with exposure to the outside environment. Chuck applied epoxy primer undercoat to the steel before laying down the final color and a polyurethane topcoat.



This series of pictures shows the results of Chuck Edwards' efforts in applying three different coats of paint plus a clear coat for a durable finish that will last in the outside environment.



Phil Gregory Constructed the Dials and Advertising Panels in Early 2010

Phil Gregory applied his dial construction talents in yet another way to accommodate the needs for this street clock. The lettering and graphics were computer generated and cut using a high bond adhesive black material as used in outdoor sign boards. This material was then attached to a form of milk Plexiglas to get an excellent black on white contrast, especially when the dials and panels are back lighted as they will be in the clock.

The picture on the right shows Phil with his handy work at the March 2010 Lone Star Regional in Mesquite, Texas.



First NAWCC Showing at the Lone Star Regional

The Board President, Pam Tischler, asked the restoration team to introduce the clock to the Chapter members at their Regional Meeting in March 2010 and there was a grand showing of the first phase of the restoration. The clock still needed a lot of work; however, all that attended this meeting agreed the results so far were outstanding and the City of Grapevine would have a great clock they would be proud of for years.



Left: Bill Edwards admiring the completed first phase of the Chapter Street Clock project.
Right: Chuck Edwards and Byron White at the 2010 Lone Star Regional meeting in Mesquite, Texas.

Restoration Phase #2

After the positive showing of the Street Clock project at the 2010 Lone Star Regional, there was a lot of enthusiasm from the Chapter members, and of course the restoration team. Now the project needed to be completed for the September 2010 dedication ceremony already being planned by the City of Grapevine.



Bill Edwards restored the clock pedestal in April 2010

Like every other part of this clock, the pedestal had damages too. With this heavy gauge steel post, the work to remove the dents and straighten the post would be difficult. Again, Bill used a hydraulic ram and jacks to force out the dents and align the column so the clock would stand straight and tall.

The clock frame was finished with a metal undercoating paint and then an overcoat of dark grey was applied. The frame was now complete and ready to receive its other parts.

Above: a hydraulic ram and jack are used to press the dents from the clock's pedestal column.
Upper right: the pedestal, clear of dents, gets a coat of epoxy to cover smaller dents.
Right: pictures show the pedestal with a fresh undercoat and a final coat of black.



Volunteer Work Day at Chuck & Marion Edwards' Home on July 10, 2010

The clock project restoration had progressed to the point where all major components were finished and it was time to assemble them in a finished product. Those helping with the assembly were Bill & Karen Edwards, Chuck & Marion Edwards, Hugh & Evelyn Slough, Chris Grimm, Bill Andrie, Phil Ball, Fred & Pam Tischler, Byron & Annette White.

This all day effort resulted in the following accomplishments:

- Installed and aligned the eight door hinges
- Installed the dials in the doors
- Installed the advertising panels in the doors
- Installed the four glass panels in front of the dials
- Installed the four slave movements
- Made and installed a mounting base for the clock controller
- Located and drilled the center holes in the dials
- Fit and installed four doors
- Installed the clock hands
- Read the controller manual, turned on the power and set the four slave clocks
- Fit and installed the bonnet on the main clock housing
- Fit and installed the eight registers above and below the four doors.

The series of photos below were taken during the all day work session to assemble the major components for the first time after restoration



The clock controller and slaves, dials, bonnet, skirt, and registers



Left: Pam Tischler, Board President stands beside the clock frame on Bill's new clock trailer
Above: Three of the four clock doors with the advertising panels installed.



Left: Bill Andrie & Phil Ball installing an advertising panel
Right: Hugh Slough installing one of the four slave movements



Left: Bill Andrie, Byron White, Phil Ball & Chuck Edwards busy with assembly
Right: Chris Grimm drills dial holes while Phil Ball & Chuck Edwards assist



The clock controller is turned on for the first time on Saturday, July 10, 2010 at 11:58:00 AM DST



Left: Bill Andrie and Phil are fitting the bonnet for the first time
Right: Madam President is passing out instructions to the photographer



Left: Bill Edwards is installing a dial
Right: Bill Edwards installing a lower register

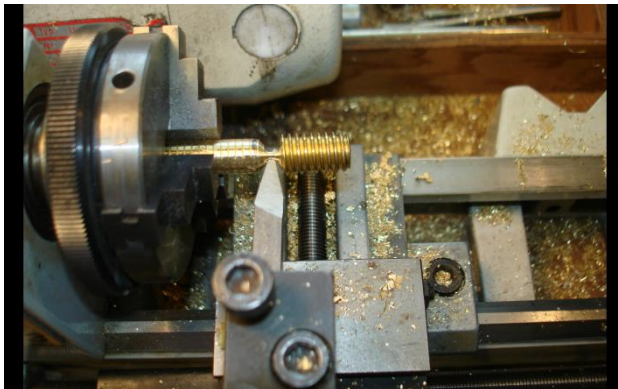


Left: Annette White beside the clock she & Byron donated to the Chapter
Right: Bill & Karen Edwards and Hugh Slough taking a rest with Frankie the dog

Summary of volunteer work day

A lot was accomplished, and by mid-afternoon, most were exhausted from the July summer day in North Texas. The clock was running and most of the housing components were on and fit correctly; however, there were still a few issues remaining:

- One of the doors that took the brunt of the garbage truck crash, needed better alignment
- The registers still needed some fine adjustments to fit better
- Some of the door hinge pins were missing
- The bolts to fasten the doors were missing.
- The dials were slightly too large for the door opening and needed to be trimmed



Above: Chuck Edwards is making hinge pins for the doors.
Right: The clock after the full day of assembly almost complete.

Work is Completed on the Street Clock

Bill and Chuck Edwards worked on the remaining issues over the next couple of months. Bill took the mal-adjusted door back to his shop to unsolder the corners to correct the issue. It was also necessary for Bill to remove the dials so he could reduce their size to better fit the door frames. Chuck made new hinge pins for those missing and tapped threads in the door so they could be secured with screw latches.



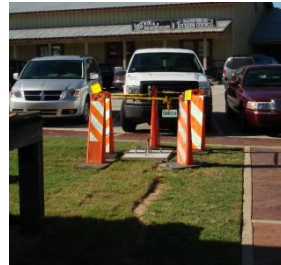
On September 3, 2010, Bill and Chuck completed the last of these tasks and the restored clock was completed. They prepared the clock for transportation to the City of Grapevine's maintenance warehouse for storage until the site was ready for installation.

Left: Chuck and Bill finishing the restoration project
Upper: Bill transporting the clock to Grapevine
Lower: The clock on the streets of Grapevine

While the installation was being completed, Bill also was working with the City of Grapevine maintenance crew on the cement base and electrical requirements needed for the installation. The City employees completed that work in September.

The Street Clock Was Installed on September 11, 2010

Chuck Edwards, Fred and Pam Tischler moved the clock from the City's maintenance building that morning. Six employees of the City were at the site along with needed equipment when they arrived with the clock. The restored pedestal was the first item to be installed on the cement base by the city workers.



The City employees strung the wires from the junction box near the train depot to the clock base. The four florescent light fixtures were connected to a circuit with a

Left: Base where clock will be installed
Right: Clock in front of the Grapevine Railroad "Section Foreman House" before installation.



City workers are connecting the clock to the electrical circuits and preparing to install it on the pedestal.

day-night timer and the clock controller was connected to a separate A/C circuits. The clock was lifted from the trailer by the City's maintenance crane and placed on the pedestal as the clock wiring was guided down the conduit to the base circuit box. Workers positioned the base of the clock so the mounting holes aligned and bolts were used to secure the clock on its final resting place atop the pedestal. The final electrical connections were made and the power was turned on to the clock controller. The controller woke up, looked in flash memory to where the hands were setting (3:43), used its radio receiver to obtain the current time (8:40) and proceeded to advance the hands to the correct time. The skirt and bonnet were affixed to their respective places and the installation was complete. See photos below of the installation.



Top left: Pam Tischler & David Klempin, the City Architect, discuss the installation.

Top right: Clock being lifted from trailer to the pedestal

Center three from left: Installation of the clock on the pedestal

Center right: Installation completed with P.W. McCallum, Executive Director of Grapevine's CVB, Pam & Fred Tischler and Chuck Edwards.

Lower two from left: Workers bolting clock to pedestal

Lower right: Clock in its final location next to the Grapevine Vintage Railroad Station

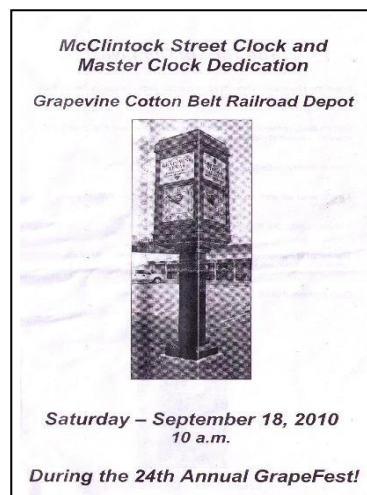
Dedication and donation of the Street Clock to the City of Grapevine, Texas, September 18, 2010

The dedication ceremony for the O. B. McClintock Street Clock was a grand occasion for the NAWCC Lone Star Chapter 124 and the City of Grapevine. The Grapevine Convention & Visitors Bureau chose to officially receive the clock from the Chapter during their 24th Annual Grapefest festival. A large number of prominent City officials were on hand to participate in the dedication, plus most of the Lone Star Chapter's Board was present along with about thirty Chapter members.

The program started with the dedication Master of Ceremony which was LuAnn Chapman Gatts, Chair of the 24th Annual Grapefest. She was followed by Sharron Spencer, Grapevine City Council Member, who gave the invocation. Steve Stinson, the Chairman of the Grapevine CVB, followed with introductions, and then the Mayor of Grapevine gave Special Remarks centered on the clock's early history and how this special instrument was going to be a great addition to the City and especially its Vintage Railroad system.

After the Mayor, Pam Tischler, President of Lone Star Chapter 124, elaborated on why the Chapter had chosen Grapevine for this clock and how appreciative the Chapter is to be able to use their facilities for all our Chapter meetings, including, the educational classes across the parking lot from the clock. Byron and Annette White, the original owners of the clock, gave the clock's history from the time he first purchased it in the 1960s. Bill Edwards, the Chair of the restoration team, spoke of the challenges encountered in recovering the clock from near the scrap heap.

Pam returned to the podium to officially donate the clock to the City of Grapevine, and then the large black veil was removed for all to see this beautiful clock, running with the correct time, in its new location beside the Grapevine Vintage Railroad Depot.

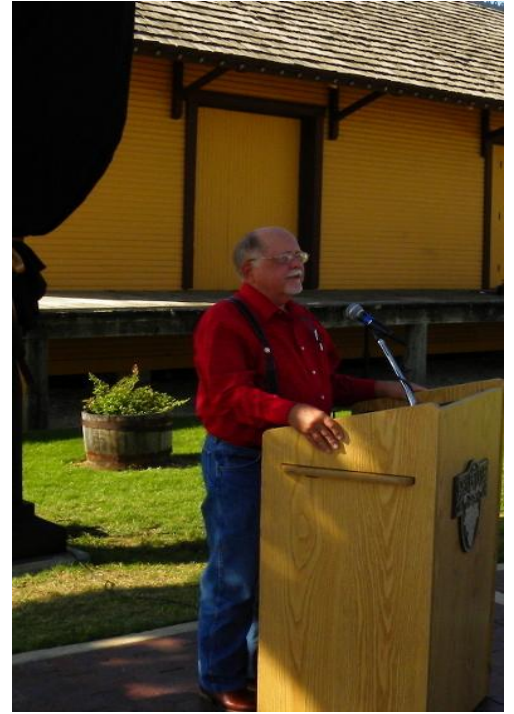


PROGRAM	
Welcome	LuAnn Chapman Gatts, Chair 24 th Annual GrapeFest
Invocation	Reading of Ecclesiastes 3:1-8 & 22 Sharron Spencer, Grapevine City Council Member
Introductions	Steve Stinson, Chairman Grapevine Convention & Visitors Bureau Board
Special Remarks	William D. Tate, Mayor
The NAWCC & the Lone Star Chapter 124	Pam Tischler, President of Lone Star Chapter 124
History of the McClintock Clock	Byron and Annette White, Street Clock Project Co-Managers
Restoration of the McClintock Clock	Bill Edwards, Street Clock Project Manager
Donation of Clock	Pam Tischler
Unveiling of Clock	Pam Tischler, Byron and Annette White, Bill Edwards, Steve Stinson
Closing Words	LuAnn Chapman Gatts

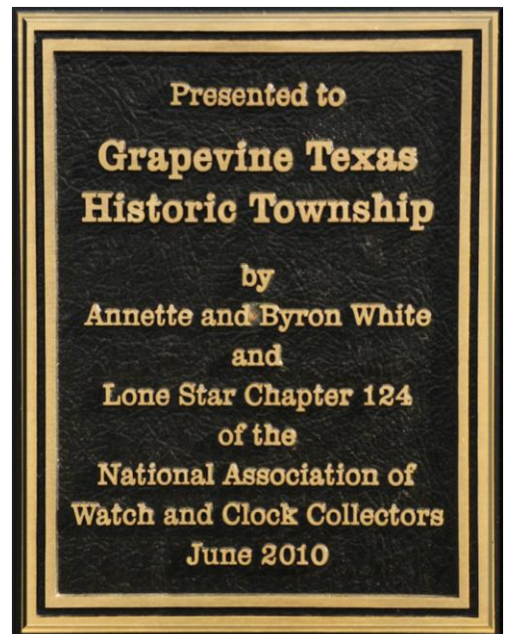


Top: Dedication program generated by Grapevine Center: LuAnn Gatts welcoming all to the dedication
Left: Sharron Spencer giving the invocation
Right: Steve Stinson giving the introductions

The photos below are from the dedication and donation ceremony



Upper Left: Byron & Annette White relating the clock's history. The black box behind the pedestal is part of the PA system used in the dedication ceremony.
Upper Center: Pam Tischler making the gift to the City of Grapevine
Upper Right: Bill Edwards telling about the challenges in the restoration
Lower Left: Mayor Tate addressing the crowd about the importance of the clock
Lower Right: The unveiling of the clock



Above: The O. B. McClintock Street Clock in its new location alongside the Grapevine Vintage Railroad Depot.

Upper Right: The plaque attached to the pedestal below the clock.

Lower Right: The part of the dedication team from both the City of Grapevine and the Chapter, which includes two new NAWCC Youth Members Ashton Edwards and Bella Grimm.

Lone Star Chapter 124's Financial Commitment to the Restoration Project

The Chapter committed a budget of \$10,000 to the restoration of the clock when the decision was made to go forth with the project. The major expense was for the purchased items which included the clock controller, four slave units, the bonnet and the skirt metal work. Other material for the dials and panels plus miscellaneous items made up the rest of the costs. Thanks to a lot of free volunteer labor from the restoration team, the total cost to complete the project was \$7,027.14.

A Special Thanks to the Restoration Team

Lone Star Chapter 124 Board of Directors wants to especially thank Bill Edwards for doing an outstanding job as Chair of the Restoration Team and without his drive this major restoration project would not have been completed in one year. The rest of the restoration team deserves very special thanks and they are: Byron and Annette White, Bill Andrle, Phil Ball, Peter Crum, Chuck Edwards, Phil Gregory, Chris Grimm, Hugh Slough & Fred Tischler.



As a result of this successful project, the Chapter and the City of Grapevine are in the process of planning a Clock & Railroad Museum in their new Convention and Visitors Bureau Center being built across the street from the clock. See photo on right



The Rest of the Story

The National Association of Watch and Clock Collectors (NAWCC) features a craft contest each year for its members to compete on Horological items they have made or restored. The purpose of the competition is to showcase the finest work in current-day Horological crafts. This contest highlights the artisans' talent as well as their understanding of history's influence on their craft. It provides the opportunity to expand the historical appreciation of clocks and watches. In June 2011, the annual craft contest was held at the NAWCC's Annual National Convention in Overland Park, KS.

There are 25 different categories that members can make and enter these contest items under and in the case where the artifacts are too large to transport, such as tower or street clocks, a detailed write-up of the work completed must be generated to describe the restoration to the judges.

The Grapevine O.B. McClintock Street Clock was an entry submitted for Chapter 124 by Fred Tischler, who took on the task of writing and making the official entry. The rules state that items restored must be documented with photos or drawings to show condition when the project began and subsequent progression to the final results.

This restoration book along with a tri-fold display board and a computer slide show made up the entry for the officials to judge the quality of the restoration made by the Chapter members for the Grapevine Street Clock. The tri-fold was written by Fred Tischler and Peter Crum produced it. The decision of the three judges was final and the Grapevine clock won the First Place ribbon for the Institutional & Public Clock Category.



This official craft contest entry shown above was made up of a tri-fold poster, three copies of the restoration book and a computer slide show with over 200 photos of the restoration progression.



Bella Grimm receiving the 1st place ribbon from Ruth Overton, NAWCC Board Chair.



Members of Chapter 124 attending the NAWCC Craft Contest who chose to be photographed.
 Back: Byron White, Bill Edwards, Chris Grimm, Hugh Slough & Chuck Edwards
 Middle: Annette White, Karen Edwards & Evelyn Slough
 Front: Fred and Pam Tischler with Bella Grimm

The End