

THE CLOCK IS TICKING

(A Profile of Fred Francis of Kewanee, IL)

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FRED FRANCIS has become a *virtual* friend of our family during the past two years. He was born in 1856. His body and spirit were separated at age 70 in 1926. Whereupon (in keeping with his wishes) he was cremated and (contrary to his wishes) placed in an ordinary gravesite in Kewanee, Illinois. Fred has warned me. He may attend these proceedings. If he is present, he advised, **you** will be able to see and hear him. **I** will not. I came upon the legacy of this remarkable man while out camping in rural Illinois.

[FF: *Who put you up to this?*]

My directory referred to a *Francis Park* and campground not far from Kewanee, Illinois. Kewanee is about 150 miles southwest of Chicago. U.S. Route 34 (an extension of Chicago's Ogden Avenue) passes through Kewanee, as well as the Burlington (BNSF) Railroad As

I entered this rural Francis Park late one September morning in 2013, I observed a nearly empty but welcoming open campground. To the north was a mature woodland and, on the west side of the campground, a house-like structure made of red brick, but fairly small with a prominent metal minaret placed over the main entrance. *What is this? A mosque out here in the cornfields?* I thought to myself. A lady dismounted from a large and noisy power mower walking briskly my way. *Do you want a house tour? Two dollars. Starts at two this afternoon. Another party is coming.* I said – *sure, see you then.* She turned and was soon back on her mower.

Here is part of what I later learned. FRED FRANCIS was born nearby in a log cabin in 1856. He was the fourth of eight children, but the only one, and the first from Henry County, to attend the then new Illinois Industrial University in Champaign, Illinois, enrolling in 1874. There he studied engineering; today it would be called mechanical engineering, graduating in 1878, but not receiving his diploma until well after 1900 because of his refusal while at the University to attend

compulsory weekly chapel services. He was instrumental in helping his class construct a large tower clock which remains in service on the University of Illinois campus today. Following graduation Fred was employed at the then very large Elgin National Watch Company in Elgin, Illinois. The Elgin Watch company was then making about 7,500 watch movements each week with a workforce of some 2,500, half men, half women. In 1890, in Buffalo, NY, Fred Francis married Jeanette Crowfoot, a widow from Elgin with grown children. Fred had previously been engaged to marry Jeanette's 18-year-old daughter, Maude Crowfoot, but Maude became ill and died. So Fred married Maude's mother. As a result, instead of a wife who would have been 14 years younger, he was married to a woman eight years his senior.

[FF: *So what? She was a lovely lady. I dearly loved her to her last day. I still love her.*]

Around 1890 Fred left the Elgin Watch Company, actually retiring from outside employment at age 34. In 1882 he had purchased for \$336.80 (probably from his father) a sixty-acre partially wooded tract

outside Kewanee not far from his birthplace. There he commenced construction of his home by hand, using only materials which he fashioned himself or brought from Kewanee. Fred was still working this home which he called *Woodland Palace* at the time of his death some 36 years later in 1926. Jeanie had died of tuberculosis in 1921. They had no children. Fred's will left his home which he called *Woodland Palace* and the adjacent land to the City of Kewanee on the condition that they be maintained by the City as a museum and public park. They remain so to this day.

I referred earlier to Fred Francis as a *remarkable* man. Here are some features of his life which lead to this characterization. He was a skilled engineer and artisan but also a poet, visual artist, woodcarver, mathematician, inventor, architect and nature lover; also shy and retiring, a bit of a recluse, and of modest physical stature. He was said to be an agnostic or an atheist. Perhaps, but we will see that he had a rich spiritual life. It is true that he did not attend church. But he did escort Jeanie to church on Sundays. She rode about four miles each

way seated on the front of his bicycle. Fred waited patiently outside until the service was ended. He did not own either a motorized vehicle or draft animals. He was a strict vegetarian raising most of his own food. He wore as few clothes as possible; his garments were mostly white muslin as he was averse to dyed clothing for health reasons. He did not shave.

He was a strong supporter of a fitness and health regime which extended from the 1880s into the 1920s usually called the *Physical Culture Movement*. Adherents essentially advocated a return to the diet and lifestyle of preindustrial agrarian peoples. Fred was persuaded that essential nutrients could be absorbed by the body directly from the soil; hence he went barefoot much of the time – sometimes without any clothing at all (often referred to as “taking an air bath”). He enjoyed an occasional shopping foray to the Marshall Field store in Chicago, taking the train in from Kewanee. This part of the Burlington line still passes a short distance south of Francis Park and is (to me) a comforting sight from the campground as two passenger trains pass each way daily.

While in Chicago Fred wore shoes with iron soles to guard against microbial invaders and other harmful substances which he was certain were abundant on the filthy city streets. Fred believed in the interconnectedness of all life and also in reincarnation. He did not believe that any animal should be forced to serve him either as food or as beast of burden.

Let's look at some details of his life in these respects with an open mind. Perhaps Fred has something to teach us. The place to start is with a tour of Woodland Palace. This would be easier with about 20 PowerPoint slides, but I prefer to be respectful of our By-Laws which state that the object of this Club is *literary culture*. After all, Tolstoy and James Joyce managed well enough without pictures.

I see it is now near 2PM on the afternoon of my arrival at Francis Park, and the lady on the lawn mower (I learned her name: June Hoffman) is about to lead our tour, two other guests having arrived. I notice a hand engraved wooden sign just off the entrance driveway which reads:

STOP – READ THIS

Grounds are free for all who do right, and all such are welcome.

Those who throw paper and rubbish on the ground, meddle with the property, or let kids do so, are hereby cordially invited to stay away.

Fred Francis

[FF: *Yes, those are my words.*]

As we walk toward Woodland Palace, June begins her presentation telling us: *Fred built everything by hand, mostly by himself.* The red bricks used for the exterior were all *seconds* or rejects from a Kewanee brickyard brought to the building site likely by horse and wagon, probably not just on Fred's bicycle as local legend insists. Fred chipped off imperfections in these bricks until they were suitable for his purposes. It seems likely that many of the design features at *Woodland Palace* were ad hoc elements added as the work progressed over a period of years. June admonishes us: *If you have questions about the inside of the house, wait until we are inside. Ask outside questions now.*

I am tempted to ask: *Is the chimney considered inside or outside,*
but I defer.

[FF: *It is both. Smart mouth !*]

Several exterior features are notable – the pile of chips from the reworked bricks was covered with soil to become a raised flower bed. A cistern installed on the north side held about 30,000 gallons (the literature sometimes says 500 barrels) of fresh water, all run-off from the house and surroundings directed to the cistern by gutters and spouts. The descent to the cistern reservoir carried this fresh water through a layer of topsoil, followed by two tons of charcoal, and then 40 wagon loads of sand. Fred wanted pure water coming into the house, and that's what he got. The water system is still functional.

Some distance from the house was a windmill, no longer present. The main purpose of this windmill was not to pump water from a well, but to provide mechanical power to run several interior systems. We will get to these soon. For the moment visualize a shaft of wood connected at a right angle to the base of the windmill running in elevated

segments toward the house parallel to the ground, supported at intervals by posts. Fred's power system used the wind, much in the way a flour mill used the power of flowing water to turn a grinding wheel. Another exterior feature was a tiled tunnel, about four feet deep running from the house 350' into the adjacent woods. The power from the windmill could be used to draw constant 55F degree air through this tile-lined tunnel and distribute the cooled air inside the house. Instant air conditioning. It is said to be the first residence in the United States to be air conditioned. Just open the relevant vents and let the cool air flow -- so long as the windmill was turning. Perhaps the first, but Chicago's Glessner House, designed by Henry Richardson and built on Prairie Avenue at 18th Street in 1887, had its own cooling system consisting of a rooftop ice reservoir which, during very warm weather, permitted air cooled by passing over the surface of the ice to descend into vents running through the house.

On the southwest corner of Woodland Palace is a glass enclosed room added by Fred to comfort Jeanie in her illness – the solarium.

More about this when we move inside the house. Another prominent exterior feature is the copper dome or minaret. It has no religious significance. Fred ordered it to be hand-crafted by a nearby tinsmith. It is simply an aesthetic feature. Perhaps underscoring for Fred that this was his Woodland Palace, not just another farmhouse. Time to go inside.

The double-leaf entrance doors lead to a small threshold, followed by an interior door. When the interior door is opened the entrance doors close automatically. Fred did not want flies in his house. Every window had an attached screen so that when the window was raised, a screen came up automatically. Flies definitely not permitted. Inside the house wood paneling and floors can be seen all about. Also the stairway posts, banisters and steps – all of maple, cherry, walnut and oak - were handcrafted with detailed ornamentation by Fred from the trees in his park. All were sanded smooth and fitted perfectly.

Just inside Woodland Palace is a copper plate or plaque on which Fred etched by hand a poem titled *Three Gates of Gold* (possibly of Sufi

or Arabic origin, perhaps first recorded in this form by a Beth Day around 1855). It reads:

If tempted you are to reveal

A tale to you someone has told about another,

Make it pass, before you speak, three gates of gold.

Three narrow gates – first, is it [FF: *true*] TRUE?

Then, is it [FF: *needful*] NEEDFUL: in your mind

Give truthful answer, And the next

Is last and narrowest, is it [FF: *kind*] KIND?

A hand pump was used to draw water from the cistern into an elevated water reservoir adjacent to the house holding 500 gallons. This water system might have been powered by the windmill, but the wind does not always blow, especially in the early morning when fresh water is most in demand. Power to move the water about inside Fred's house came from a more reliable source, a pressurized interior water system

relying on gravity. Think of the elevated water tanks painted with smiley faces you see on the edge of many rural towns. Same concept. Water will run downhill on its own motion. Strategic placement of interior water pipes around the lower level wood-fired cook stove and fireplace on the floor above, as well as within the chimney, provided also for a hot water system.

The lower level also contains the kitchen, dining area, bathroom, Fred's workroom and various storage areas including access to the root cellar dug to a level at which the temperature would be constant at 55F degrees. Part of the storage area also served as a sauna. Fred could fill the area with steam from a tea kettle on the stove fitted with a flexible tube. After a steam bath, especially in winter, Fred might run outside and roll in the snow. Part of the *Physical Culture* regimen. Because Fred was a vegetarian and Jeanie was not, they ate from two adjacent dining surfaces – hers covered with zinc, and Fred's with wood. His belief in reincarnation led Fred to associate meat eating with the possibility of cannibalism. He loved Jeanie too much to force his views

on her. Fred also refused to use salt, pepper, or any spices, herbs, sauces or condiments with his food. The thought was that these could lead to excess appetite and over-consumption. *Physical Culture* at work again.

Inside the workshop area was the main flywheel with power coming from the windmill described above. Five interior systems were driven by the power from this wheel. First, the air cooling system – as interior vents and fans distributed the cool air coming from the exterior clay tile; second, the interior heating system, as the same power was used to draw air through vents in the house using pipes coming from the chimney in which the air would first be warmed by the fireplace and cook stove fires; third, a fresh air system to bring air in from outside and remove stale air from inside (there being times of the year when the inside air did not need to be cooled or warmed); fourth, the workroom grinder which could sharpen tools or be geared down to grind seeds, grain and nuts for the pantry; fifth, a six speed lathe to turn and fashion wood and metal. If the wind was insufficient at times to power one or

more of these systems, the interior flywheel could be manually spun using an adjacent foot treadle. Fred was not turning his back on modern electric power for these systems. Most Midwest farms did not receive electrical power until well into the 1930s or later. I recall kerosene lamps in use at my grandparents farm in McLean County, Illinois in the early 1940s as the only source of light after sunset. I also recall my grandparents' iron cook stove in the kitchen and parlor stove as the only sources of warmth in a large two-storey house. But these required that you sit or stand close by to enjoy the warmth.

June tells us it is time to explore upstairs. She mentions as we ascend that we are now climbing the stairs on which Fred's body was found by a mailman. After Jeanie's death in 1921, Fred remained at Woodland Palace, living alone. He asked the mailman to check the flag on his mailbox daily. If the flag was not raised, Fred might need assistance of some kind. That is how Fred's body was discovered on December 22, 1926. More about that later when we discuss his will and death instructions.

Upstairs are three principal areas – an entry foyer surrounded by a fireplace, library and exhibition area, the coach room (an area constructed to resemble a Pullman railroad car, complete with sleeping compartments on each side – one for Fred and one for Jeanie), and finally, the solarium which Fred built to help comfort Jeanie as her tuberculosis progressed. The floor is of hand wrought hard maple and black walnut. The floor in front of the fireplace includes several translucent blocks. Thus if Fred was busy in the workroom or kitchen below, he could look up through these glass blocks to see if the fireplace above needed tending without having to climb the stairs.

The coach room has the look and feel of a vintage Pullman car. Recall that Fred was fond of occasional trips by rail on the Burlington line to Chicago and shopping at Marshall Fields. Overhead is an oil burning chandelier, fashioned from four actual railway coach lamps. On each side are the two sleeping areas with a curtain to close for privacy or to exclude light. On the exterior of the coach room are two separate small enclosed porches facing south, screened for access to fresh air in

moderate weather. Why these small porches were isolated from each other is not known. It was never Fred's purpose to separate himself from Jeanie; still each had their own porch.

Next, the solarium which was an addition to the southwest corner of Woodland Palace. As Jeanie's illness progressed, the only treatment for tuberculosis then in vogue was sunlight and fresh air. So Fred constructed an addition their house to maximize these features. The solarium was vented so that the air would be changed entirely every 60 seconds. All of the morning and afternoon sun could shine directly into this space. In time Fred arranged the solarium so that Jeanie could sleep there. He made a kind of fold-down "Murphy" bed for her to use while he slept on a cot nearby. Fred's bicycle is now on display in the solarium, complete with the platform on front on which Jeanie could be seated and on which he could carry supplies from Kewanee. As we completed our house tour, we settled accounts with June, thanking her for her informative commentary which was remarkable in several

respects. Mainly it has to do with her non-judgmental matter-of-fact delivery about this strange and unique man.

[FF: It's her job. To talk about me. Not to judge me. The same for you.]

Outside Woodland Palace is a miniature log cabin. It is exactly half the size of the cabin Fred grew up in. When he found that cabin disintegrating, he salvaged enough of the logs to construct the smaller replica which became a playhouse for children visiting Francis Park. Woodland Park has since 1975 been both a State of Illinois Historic Site and on the National Register of Historic Places.

Let's shift gears. I want to talk about the Tower Clock which was the gift of Fred's graduating class of 1878 to the Illinois Industrial University (IIU) as the University of Illinois was then called. Fred, together with some classmates and Professor Stillman Robinson, designed and built this pendulum clock entirely by hand using parts they ordered from various sources, including a University foundry, or made themselves. The cost of purchased components was about \$300. These

funds were raised or contributed by Fred and his classmates. The clock was installed in the west tower of University Hall (1871-1939) and became the official time keeper of the University for many years until the Illini Union was built in the late 1930s on the same site. If you look today at the face on the clock tower above the north wing of the Illini Union you will see (instead of the numerals 12, followed by 1 through 11 corresponding to the hours of the day) the letters **T-H-E-C-L-A-S-S-O-F-7-8**, with only the numerals 7 and 8 falling where these numbers correspond to the correct hour of the day. Sometime after the 1941 opening of the new Illini Union the original clock mechanism was retired in place or close by. An electric powered mechanism was substituted. There the original Tower Clock mechanism languished until its rehabilitation and relocation in the late 1980s as will be described below.

It is beyond the scope of my understanding, vocabulary and ability to describe in detail how the original Tower Clock mechanism was designed and worked. As a pendulum clock (such as are most traditional

so-called *grandfather clocks*) its pendulum – nine feet long and weighing 110 pounds with a 1½ second interval - was powered by the gravitational force of 300-pound weights on cables which had regularly to be raised some 90 feet to their starting position. Because the clock mechanism, including the pendulum and weights were exposed to hot, cold, wet, dry, calm and windy weather of various combinations in the original tower location, the clock contained design elements to overcome the changes in accuracy which would otherwise be weather induced. This was accomplished by using metals and alloys in combinations and arrangements to offset the weather effects. Fred and his colleagues were indeed bright young mechanical engineers. Fred penned the following lines for his 30th class reunion in 1908 as part of a longer poetic tribute to the Tower Clock which had then been in service for some 30 years:

*I am ticking, ticking, ticking
That's the calling that I follow
Here within my darkened tower
I with vigilance must keep*

Every second, minute, hour

Time keeping is a fascinating subject which we take much for granted today with our ready access to accurate time. It was not always so. Nineteenth century watches or timepieces were not common and often unreliable. Even so, while he was still in school Fred's mother spent \$ 20 to purchase a watch for him, an extravagance to which Fred's father strongly objected. Until late in the 19th century most people and communities kept time by looking at the sun. When the sun was overhead, it was noon, and a bell might be rung, thus signaling the time for lunch (or dinner as it was then usually called). When the sun went down – time for bed; sunrise signaled time to get up. Simple system. Except there was no uniformity. As the sun moved across the sky it would be noon or morning or night in different places at different times. This was not such a problem until the railroads came along and needed to publish timetables showing when a train would leave a particular place and when it would arrive somewhere else. Similarly, at a place like IU students and professors needed to know when a class would

begin and when it was over. Thus the need for a central time system which could reliably signal the time to faculty, students and staff. The Tower Clock of 1878 fulfilled this need at IU.

The railroads solved their uniformity of time keeping problem by getting together at a hotel then located at the intersection of LaSalle and Jackson Streets in Chicago on October 11, 1883. They divided the United States into four time zones running roughly south and north along agreed lines. This plan was placed in effect by the railroads a few weeks later at noon on November 18, 1883, which became known as the “day of four noons.” Thus were established Eastern, Central, Mountain and Pacific standard time zones, each separated from the next by one hour, a system which remains in place today. The Federal government did not sanction this system as the official standard time system for all purposes until legislation signed by President Wilson in 1918. The concept of “Daylight Savings” time during the summer months has a long and complex history. It was introduced during the first and second world wars as a means to conserve energy, mostly coal, for war

production. Farmers and railroads never liked it; but city dwellers did for the extended summer evening daylight and outdoor leisure time it provided. I recall hearing as a youngster out in the farming country of central Illinois, in response to the question - *what time is it?* a response by an old timer along the following lines: *What time do you mean? Sun time? Or railroad time? Or government (daylight savings) time?* All three of these time systems might coexist in rural settings.

[FF: Get back to the Tower Clock.]

Now, . . . getting back to Fred's 1878 Tower Clock. We can speak of it with some authority and precision today because it still can be seen in service at the University of Illinois, now housed in a special location within the Mechanical Engineering Laboratory building. Fred Francis served as draftsman for the original plans and specifications of the Tower Clock. Many years later these were located at his *Woodland Palace* and facilitated a careful and faithful reworking and rehabilitation of the clock during 1988 and 1989 by Professor Bruce Hannon and student colleagues. They had to recover as much of the original clock

works as had survived casual storage in the Illini Union, rehabilitate and repair the entire mechanism, and devise a new weight and cable system to power the clock. When their work was done and they released the pendulum, once again to permit the clock to tend to its work of marking seconds, minutes and hours, there was as much jubilation as there had been in 1878 when the Tower Clock was first activated. As Dr. Hannon wrote in the 1878 clock restoration logbook:

2 Jan. 1989: At 5:27 p.m. the clock started under its own power . . . just a gentle push of the pendulum and it began to tick.

Trying to penetrate the mind and personality of someone with the depth and complexity of Fred Francis is not easy.

[FF: *Keep going. You're doing OK. I'll speak up if you get out of line.*]

Fred's poetry, never mind its homespun, folksy character, is helpful. Here is Fred speaking of his family in words likely written in

1877 when he would have been 21, describing conditions he found at home:

*Yon dear old lofty drooping trees,
That stand so solitary there,
Were given by Heaven to shelter homes,
But our home now is lone and bare.
For what is home where love doth lack?
'Tis cold as Arctic region's snow.
In years gone by, when house nor fence
On this broad prairie was in sight,
My father settled on this spot,
His upward way through life to fight.
He from the East my mother brought,
As a companion life to share:
He brought her to his rustic hut,
But Mother was not happy there.*

Fred continues with details of his eight brothers and sisters, most of whom died very young:

*"Of children, one to eight they had,
And four now lie beneath the sod.
My sisters in their childhood died,
And O, my life has lonely been;*

*But call them back I would not do,
Into this weary world of sin.”*

Fred then speaks of his parents living apart for some time and of a last but failed effort on his mother's part to live here:

*But last June, when back home I came,
I found my parents were divorced,
And papers made out for the same.
I take no part on either side,
Though they may think me heedless, so.
For God and not for man to judge,
Are cases like this one at hand.
Each thinks the fault in the other lies,
But God will judge which one is right.*

Fred finishes this poem by returning to the cottonwood trees which are all that is now flourishing on the site of his childhood:

*O, blessed trees ! Pray do not weep,
When into others hands you've passed:
Though you're surrounded by cold hearts,
Our tender love will ever last.
When comes again the cheerful spring,
Thy friendly shade on others throw:
My deep affections are with thee,*

Though off to other friends I go.

These thoughts and reflections show that Fred is very attached to what we think of as *place*. Yet it was not a place of happiness during his youth, except perhaps for him in his solitary pursuits. This was not the ***Little House on the Prairie*** depicted by Laura Ingalls Wilder in her nine books detailing her own youth. As a precursor to his woodworking skills and emerging aesthetic sense Fred did fashion by hand a handsome walnut chest at age 12 as a gift to Mary Francis, his mother. This chest later became part of the furnishings at his *Woodland Palace*. How ironic that Fred would bring Jeanie Crowfoot to live with him (there is no evidence that there was ever any conflict between them) as husband and wife so near to the same prairie region which had led to such perpetual conflict between his mother and father. Perhaps he wanted to prove to himself that he could succeed where his father failed – in making not just a fruitful living outdoors, but also living in harmony with everything and everyone around him.

[FF: *You're still doing OK. Keep going.*]

* * * * *

You may wonder. How was Fred Francis able to retire from commercial employment in his early 30s and spend the rest of his days on a country estate albeit fashioned and maintained with his own hands? His only inheritance was his wit and personal determination. While at the watch company in Elgin he invented a device which was used thereafter to insert the mainspring into new watches (actually into the watch *movements*) as they were being assembled. The mainspring, when tightened or wound, supplied the power driving the entire watch mechanism. Before Fred's invention the failure rate on this installation procedure was about four out of five, meaning that a new mainspring would have to be used and the one which had failed discarded. Fred's invention reduced this failure rate installing mainsprings to no more than one in five. Fred was paid royalties on this invention, and perhaps on others as well, even after he left Elgin around 1890. When the total of these royalties amounted to \$ 50,000, he wrote to the watch company to

say: *Stop sending these checks to me. I have all I need for the balance of my days.*

[FF: *And they did stop. No reminders needed.*]

After the death in 1921 of his beloved Jeanie, the historically shy and reclusive Fred Francis began to reach out to others in unaccustomed ways. This is evident for example in his regular correspondence with Carl Stephens, then editor of the alumni affairs magazine at the University of Illinois. He did visit Champaign, Illinois in 1914, with Jeanie, for his 35th class reunion, giving a talk to his classmates on the Tower Clock during which he said: *What now concerns us most is the preservation of our clock. If the old building is torn down I hope it can be set up in some other building.* He did not attend the wartime 40th reunion in 1918 which was also the 50th anniversary of the University. Fred marked the 1918 events with a poem titled *Fifty Years*, published in the Alumni Quarterly ending with these lines:

*Teach us more, O Alma Mater,
Of that health and untold power*

*To be had with rightful living,
So much needed at this hour.
And we trust that soon our country
May in peace resume its sway,
Bearing only love and kindness
To all nations far away.*

In 1923 we find this note to Carl Stephens concerning the upcoming 45th class reunion, the last he attended:

True it is that June will soon be here, and what is left of the old '78 era will be happy to meet again on their 45th. I am hoping to be with them and expect to walk 12 miles to the Toulon station to take the train as I do not like to ride in an auto, but I was the odd one of '78.

At the time of his 30th class reunion in 1908 Fred completed a **Graduate's Record Questionnaire** listing under the heading *Discoveries or inventions* as his two principal achievements: first, the pure soft water system he designed and installed at his home; and second, the solution to a supposedly unsolvable math problem on which he labored for 12 years before submitting in 1890 a proof containing more than 1,000 terms to the faculty at the University. This proof is detailed in a frame 28 by 40 inches at *Woodland Palace*. No mention

was made of his important contributions to watch making while at the Elgin National Watch Company.

Fred also tried in his later years, to bring University of Illinois alumni resident in Henry County into closer association. These efforts were largely unsuccessful, although local residents occasionally gathered at his invitation to hear lectures on Physical Culture and healthful living. It seems that after his more than 50 years of demonstrated eccentricity and reclusive style, others were wary of what might be a *new* and more socially focused Fred Francis.

John Fredeen had delivered mail to the Rural Route 5 mailbox for 23 years and had been asked by Fred to check on him if the mailbox flag was not raised each day. On Wednesday, December 22, 1926, Fredeen saw that the flag was not raised. Inside the mailbox was a card with the words: *Please call*. As he walked to the house he could see prints from Fred's wooden snowshoes in the snow. Fredeen later testified at the Coroner's Inquest:

I yelled for about five minutes but nobody answered. I went in and found Mr. Francis on the steps inside the door of the basement. There were no signs of life. I did not touch the body. There was no movement. I saw a lot of blood.

Fredeen left immediately to notify authorities who later found a card on a table inside reading: *Notify First National Bank. Hernia. Could not stand the pain. Use coffin in shop.* The *Kewanee Star-Courier* headline read: *Death finds Hermit in House He Built.* The gun Fred used, putting the barrel down his throat and firing, was found later.

The Coroner's verdict, based on testimony of a local doctor was that death resulted from a *pulmonary hemorrhage*. True, as far as it went. Fred could not lawfully be cremated on an open funeral pyre near his house as his will requested, so he was cremated commercially and his ashes placed in the Francis family plot (No. 573 of more than 2,000) in Pleasant View Cemetery in Kewanee. Fred's June 4, 1923 will left essentially his entire estate to the City of Kewanee. The bequest was subject to several conditions as to the use, maintenance and upkeep of what is now Francis Park, including that it be accepted by vote of Kewanee residents, as in due course it was.

But first, the estate being valued at an amount in excess of \$ 50,000, there was a will contest brought by several of Fred's relatives, including Sullivan Francis, a half brother. The claim essentially was that Fred's suicide and unorthodox life style were evidence of insanity. Thus the will should be invalidated on grounds of incompetence. One witness testified that Fred told him he never went to bed after his wife's death, preferring to sit in a reclining chair singing to her until he dozed off . Another Kewanee resident reported that he had recently taken Mr. Francis home from Kewanee in his car. On the way Mr. Francis mentioned he was doing early Christmas shopping and had just paid for the funeral of a local widow. A contemporary newspaper account states that Mr. Francis *frequently gave help in this way, and news of his benefactions rarely became known to the public.*

A neighbor testified that Francis had talked to him about suicide and where to fire a bullet to end life quietly. This neighbor emphasized his unorthodox dress, unkempt hair, whiskers, bare head and bare feet, even in snow, as evidence of an unsound mind. The jury was not

impressed by any of this. The trial lasted two weeks, but the jury took less than three hours to decide on June 27, 1930 that Fred Francis was of sound mind both at the time he executed his will and on the date of his death. Accordingly, the will was valid. My own conclusion, looking over Fred's correspondence and activities after Jeanie's death in 1921 is that his death had resulted as much from a broken heart as a broken body.

* * * * *

Henry Thoreau (1815 – 1862) did not have Fred Francis' building and engineering skills. Fred did not have Henry's gift of polished prose. Still, each found peace and contentment living in a self-reliant manner in a mostly solitary place of their choice. Thoreau did this at Walden Pond for two years, two months and two days. Fred Francis remained at his self-made *Walden* for more than 35 years. Their paths did not cross, but

surely their perspectives did. I have not read of Fred Francis being compared to Thoreau, although they had much in common. Thoreau had passed out of fashion in Fred's early 20th century era and did not regain prominence until after 1950. Fred was sometimes, and I think fairly, compared to Walt Whitman (1819 – 1892) who wrote *in (Leaves of Grass, Book III, Song of Myself, Stanza 6)*:

What do you think has become of the young and old men?

. . . . of the women and children?

They are alive and well somewhere,

The smallest sprout shows there is really no death,

And if ever there was it . . . ceas'd the moment life appear'd.

All goes onward and outward, nothing collapses,

And to die is different from what any one supposed, and luckier.

* * * * *

[FF: *Talk about the trains.*]

Trains pass many times each day on the near south horizon when I camp at Francis Park. The trains remind me of the trains which passed close by Walden Pond and of which Thoreau was fond and wrote so poetically, and which carried Fred Francis to and from Chicago on his travels. It comforts me to know that the trains and lines of rail which were so important in the 19th century remain so today. As the trains pass near our campground at night I picture Fred Francis at rest but still awake in his simulated Pullman berth inside *Woodland Palace* listening to the same comforting sound of these passing trains. It is so quiet at night out on the former prairie (now all farmland) that the horn and low rumble of an oncoming train can be heard long before it passes forcefully by and then gradually recedes with diminishing sound until, at last, there is only the sound of whatever is near, birds, locusts, sometimes coyotes in the woods, an occasional car moving along U.S. Route 34.

Lorado Taft, another of my 19th century pals, graduated from the IIU in 1880 just two years after Fred Francis. They were at the

University at the same time. Lorado's father, Don Carlos, was a widely admired University faculty member at the time, including by Fred. Fred asked the University for Lorado Taft's mailing address at one point in the 1920s

[FF: *Lorado Taft. . . . A fine gentleman and artist. I see him often.*]

.and I think the following words by the eloquent Taft are appropriate here:

There never was so prosperous a country as this. But of what consequence is it all, if people merely come out of the ground and grow big and fat and then lie down and leave no record. It will never do. There must be some message sent on down through the ages.

Taft then quotes Spinoza:

I cannot believe that the good of this life lies in the possession of those things which for one man to possess is for others to lose, but rather in those things which all may possess alike, and where one man's prosperity increases his neighbor's.

Just as the Tower Clock of 1878 still marks the passing hours in its new home in Champaign, Illinois and many vintage timepieces are

repaired or restored by enthusiasts to their 19th and 20th century glory,
so do Francis Park and its *Woodland Palace* still welcome all who come
there and, in the words of Fred Francis on the entrance sign: *do right*.

* * * * *

[FF (entering from the side, approaching the speaker's podium
diffidently): *Sir, . . . Mr. President . . . May I have a word?*]

[S. Schlegel (standing at the podium, showing some impatience; as
reacting to a disruption): *Can you tell us who you are? And how it is
that you are here? I don't recognize you.*]

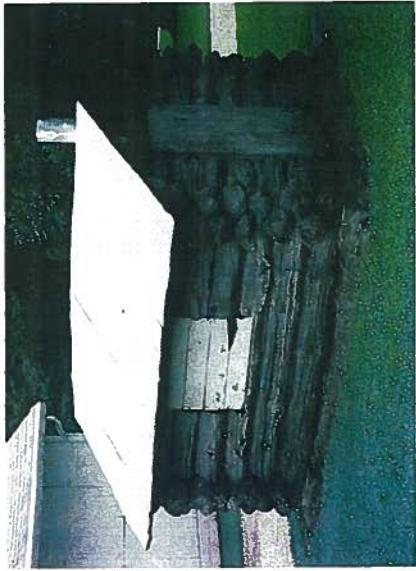
[FF (remains standing, speaking directly to the audience): *Sir, I
am a visitor. . . . From another place, . . . on the other side. A good
place, but far removed from here. I just wanted to say that I have
observed your proceedings this evening. I know something of your
speaker's subject and am content with what he has said. Woodland
Palace and Francis Park are like are like home to me. You will all
be very welcome there. That is all. Thank you.*]

REFERENCES

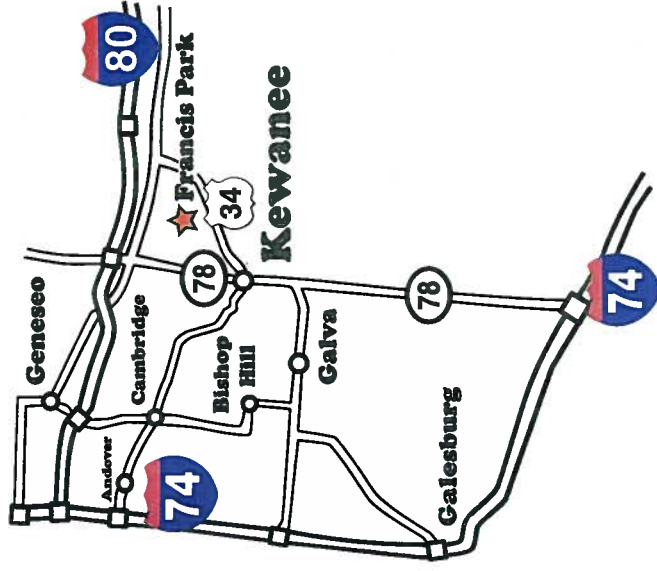
1. For an excellent 10 minute video tour of Woodland Palace I recommend the entry under: *Illinois Adventure #1801 "Woodland Palace"* on YouTube.com.
2. For papers, brochures and news articles about Fred Francis a good source is the Kewanee Public Library located at 102 South Tremont Street, Kewanee, IL 61443, 309-852-4505.
3. Additional information about Fred Francis is available at the Kewanee Historical Society, 211 North Chestnut Street, Kewanee, IL 61443, 309-854-9701.
4. The University of Illinois Library Archives contain some useful information about Fred Francis, especially his correspondence after 1900 with the Alumni Office and some information about the Tower Clock. For further information and details about these Archives, check for entries under "Fred Francis" in the Search window at: www.uiuc.edu.

5. Obviously the best way to get a first hand view of Woodland Palace and Francis Park is to visit in person these facilities off Route 34 a few miles northeast of Kewanee, Illinois. Details as to hours and events at the Park are available at www.cityofkewanee.com/parks.

6. Your attention is directed also to a paper compilation of photographs and descriptive materials regarding Fred Francis, *Woodland Palace* and Francis Park prepared by the author of this paper to accompany its presentation and to be placed with copy posted to the Club's website and stored with CLC archival records at the Newberry Library of Chicago.



A miniature log cabin built by Fred as a memorial to his parents. This replica of the cabin Fred grew up in is built with logs salvaged from the original homestead.



Directions

Francis Park is easily accessible from both I-74 and I-80. From I-74 take IL 78 exit north to Kewanee. From I-80 take IL 78 south to Kewanee. Take US 34 east out of Kewanee, 4 miles to Francis Park.

Francis Park is open May through September. Woodland Palace is open for tours every day of the season. There is a nominal fee charged to tour Woodland Palace.

Francis Park offers something for all family members. In addition to Woodland Palace, Francis Park has camping sites, party shelters, a spacious picnic area, playground equipment, ball diamond, and horseshoe court. There are also several walking trails through 40 acres of woodlands at the park.

An annual July 4th festival historically has included arts & crafts, ethnic food court, wagon rides and games for children, antique auto show, antique steam machinery, and free musical entertainment.

Francis Park Camping

60 RV spaces w/electricity
Spacious tent area
Water
Free Firewood
Dump Station
The lowest camping fees in the area, with 7th day free for weekly rental. Sorry, no reservations taken for camp sites.

Francis Park Facilities to Rent

For receptions, reunions, picnics, etc.
Enclosed Shelter
30' x 60', with stove, tables, screened doors & windows, refrigerator/freezer, electrical outlets and lights.
West Open Shelter
32' x 16' under roof, fixed grill, elect. outlets and lights.
East Open Shelter
24' by 16' underroof, elect. outlets and lights.
Shelters' Rental Periods
9:30am-3:30pm & 4:00pm-10pm, daily in season. No shelter rentals accepted for July 3-4-5. Reservations must be made at Kewanee City Hall. Rental fees very reasonable.

Phone Numbers

Kewanee City Hall: (309) 852-2611
Francis Park Office: (309) 852-0511

Historic Francis Park

4 miles East of

Kewanee, Illinois on Route 34



“WOODLAND PALACE”



“Woodland Palace” was declared a State Historic Site in 1974 and placed on the National Register of Historic Places in 1975.

Fred Francis, a Leonardo da Vinci-like man, graduated from the University of Illinois in 1878. He was an inventor, mechanical engineer, mathematician, craftsman, artist, poet, nature lover, and above all an individualist.

In 1889 Fred began to build his unique house for himself and his wife Jeanette. The house, including the furniture, was designed and built entirely by Fred.

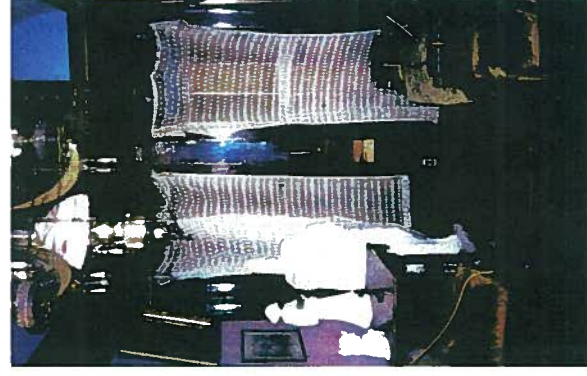
Wind, driving a windmill, was the sole source of power for the house. Fred used wind power to operate several fans in the house. One fan was used to heat beneath the floor boards in the basement. Another fan drew air from an underground tile and vented this cool air into the house. This was the first house in Illinois to be air-cooled. Fred fashioned window screens to rise automatically with the sash as well as built-in storm doors and windows.



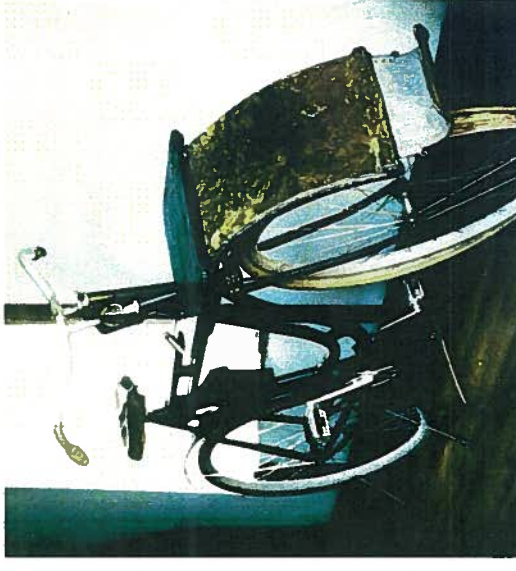
The Solarium, built for his wife, Jeanie, who had tuberculosis, was designed so the air inside changed every 60 seconds.



To keep out insects and other pests, Fred built automatically opening and closing entrance doors.



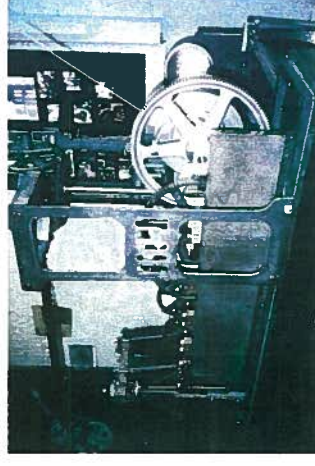
The Coach Room was built to resemble a railway coach of Fred's time. It has long, narrow windows and mirrors. The chandelier was made of lamps taken from old coaches.



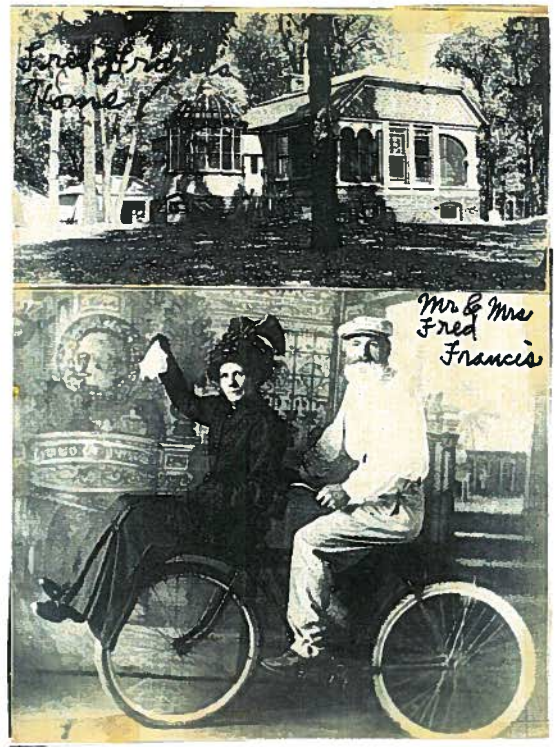
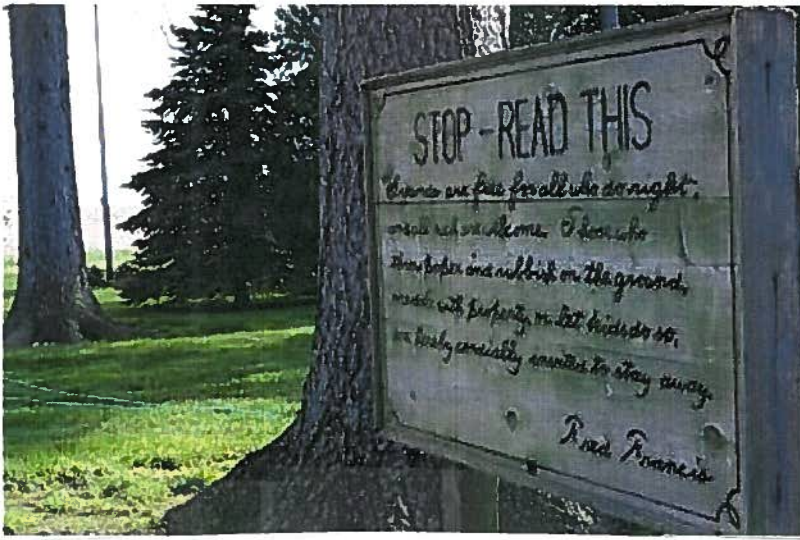
Fred's bicycle was his only means of transportation. Fred put a platform over the front wheel to carry supplies and provide a place for his wife to ride.

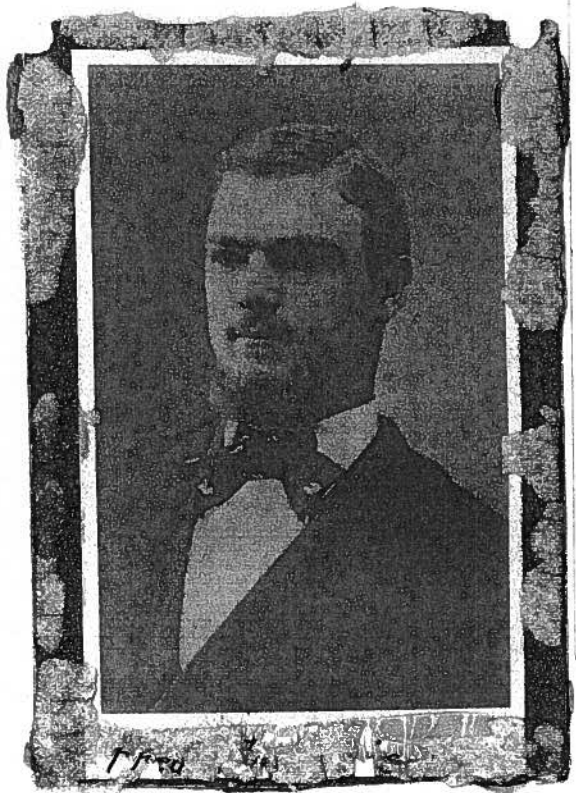


Fred was remembered for biking the nearly five miles east to Neponset to take Jeanie to church.

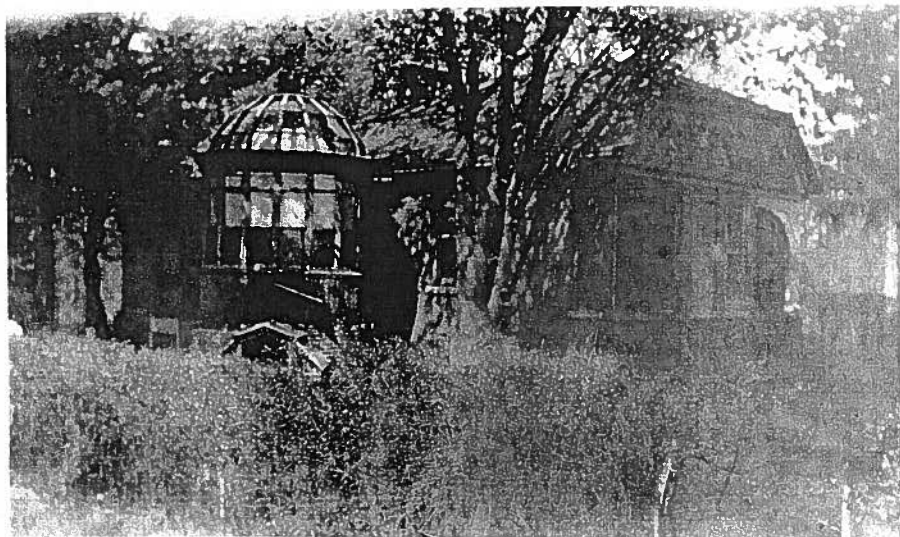


Fred designed and helped build and install the "Class of 78" clock at the University of Illinois. This clock was a gift to the University from Fred's graduating class.

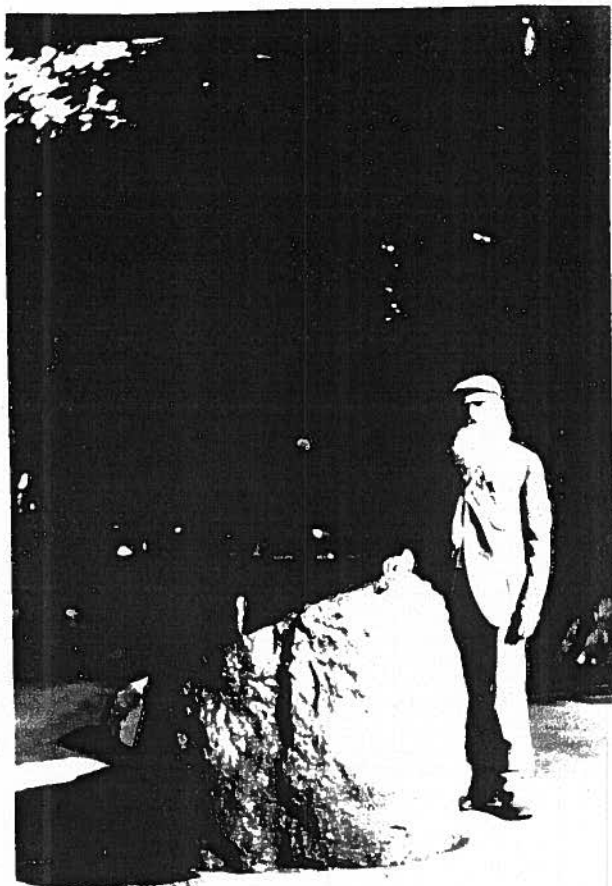




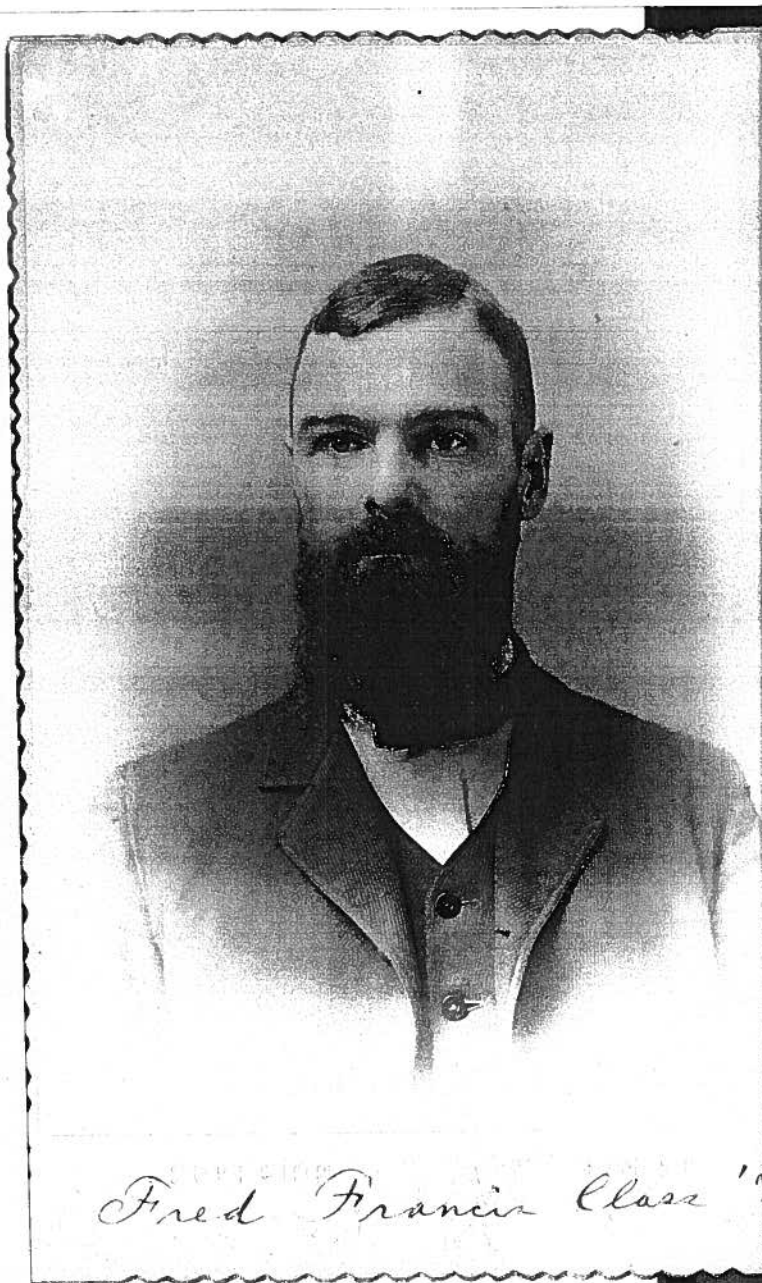
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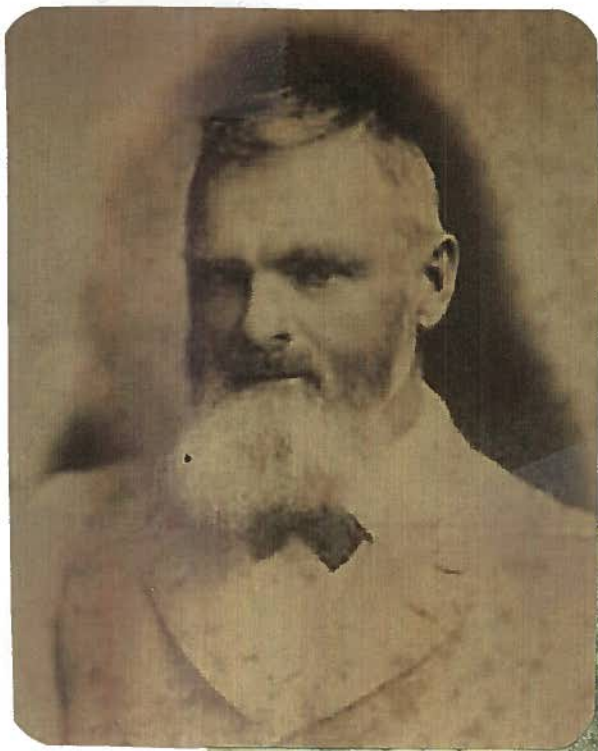


June,
1922



Fred Francis Class '9

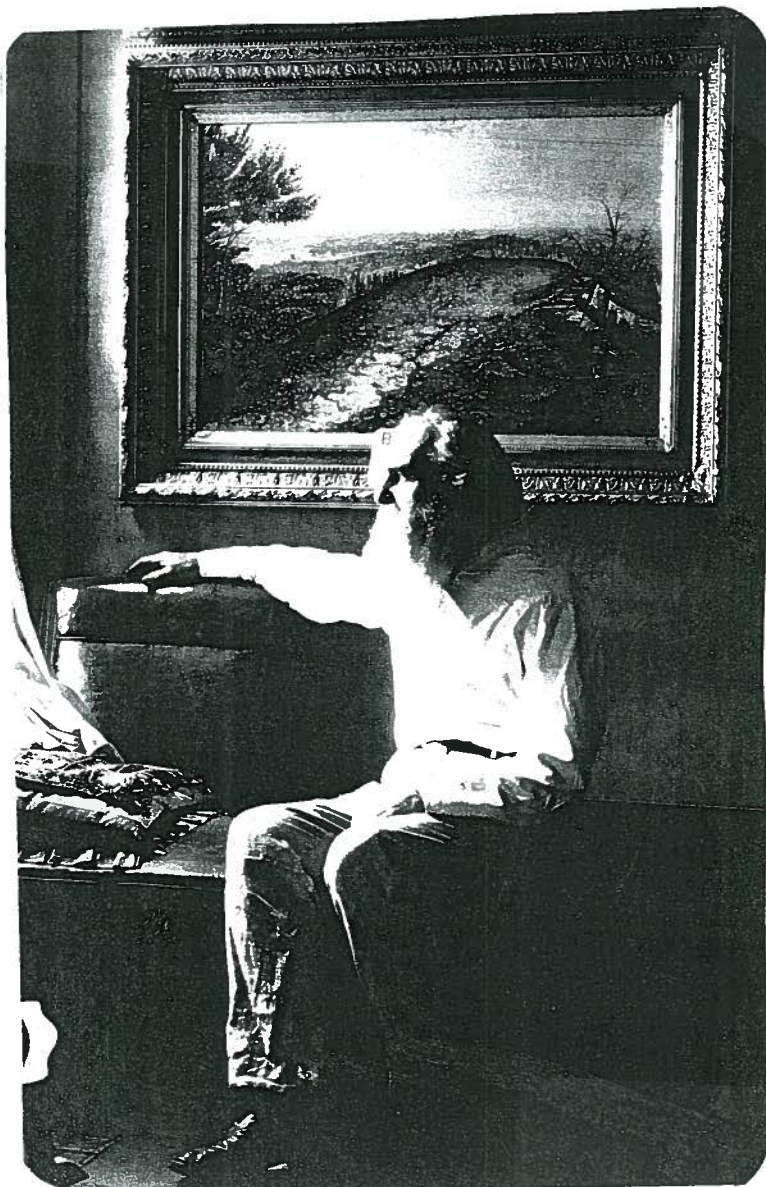
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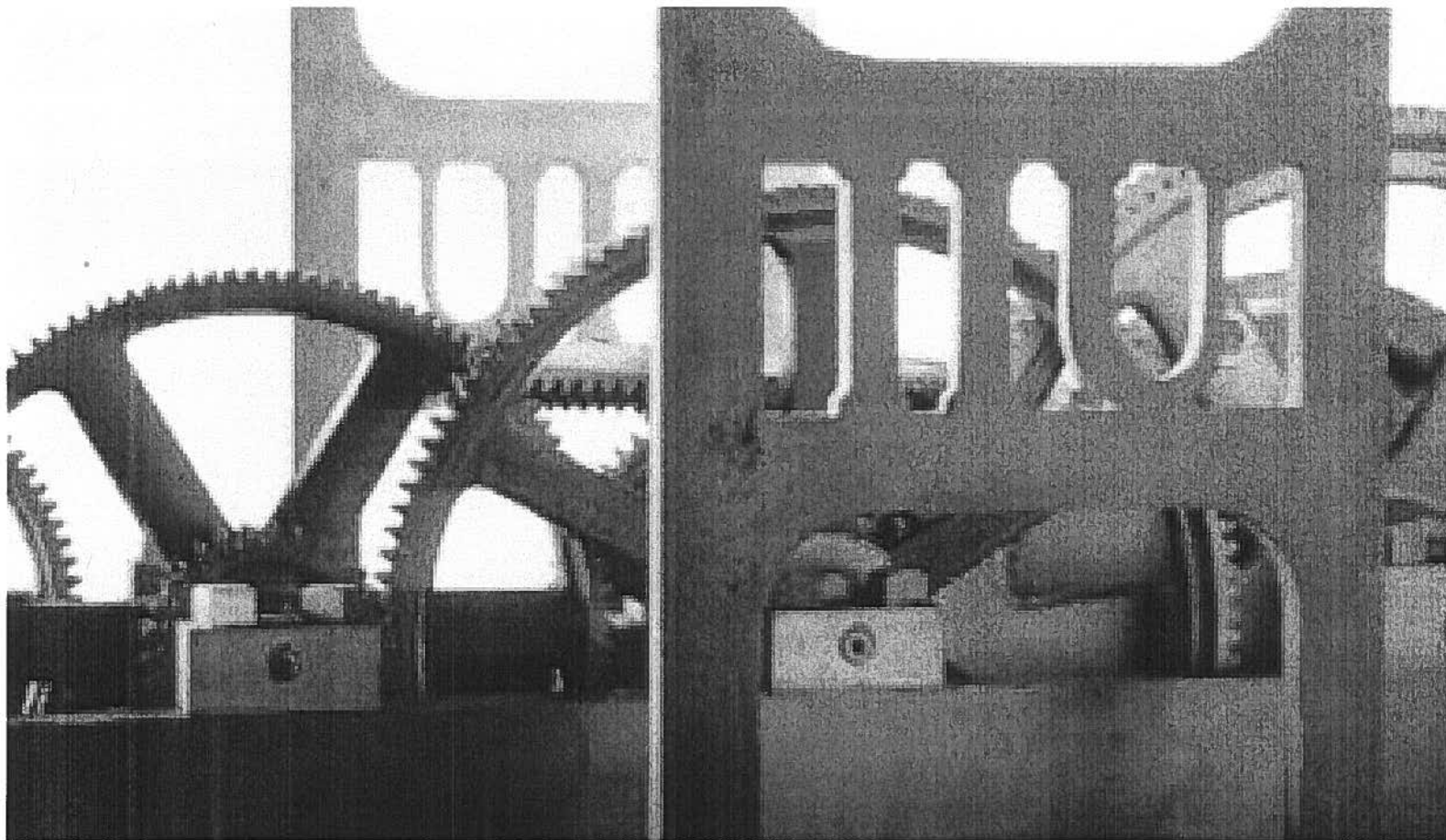
Mr. Francis

-1923-
AT THE GRAVE OF DR. GREGORY.—Members of the class of '78 who returned for commencement are here shown at the grave of Dr. J. M. Gregory, the first president. Standing at the left is Manford Savage of Champaign. Next in line are Fred Francis of Kewanee, Secretary Mary Larned Parsons of Chanute, Kan., Wensel Morava of Chicago, Eddy O. Lee of Salt Lake City, and Mayor S. A. Bullard of Springfield.



Univ. of IL Alumni
Genealogy Club
1920s





Above: The gear works of the original tower clock, showing the monogram of the Illinois Industrial University. The image is among a recently published collection of photographs of the University of Illinois called Insights by photographer Don Hamerman. More information can be found at www.insightillinois.com. Right: A view of the original clock tower.

The Tower Clock of 1878

“During my time at the University a watch or clock cost considerable money... We had to depend largely on the bell in the tower to tell us the time. On windy days even the teacher sometimes had to ask the class if anyone had heard the bell.”

So wrote Fred Francis in 1922, 44 years after his days as a University of Illinois student had ended. A member of the Class of 1878, Francis and his classmates wanted to present the University with a gift that would endure in its significance and usefulness. All thought a clock for the tower of University Hall a fine idea, but had no idea where they could get one, nor who would set it up. They consulted with Stillman Williams Robinson, the University's first professor of mechanical engineering, who told them one could be made in the University Shop. In a letter to the *Alumni Quarterly and Fortnightly Notes*, Francis wrote

“The business managers of the class of 1878 looked very doubtful; but when Prof. Robinson explained that most tower clocks were equipped only with dead beat escapements, that would swing the

pendulum through different arcs of a circle, and consequently in different lengths of time, according to the variations of the impulse, caused by friction and other conditions; that would always give the pendulum the same impulse, they saw that he knew where of he spoke, and so a contract was made for the building of the clock.”

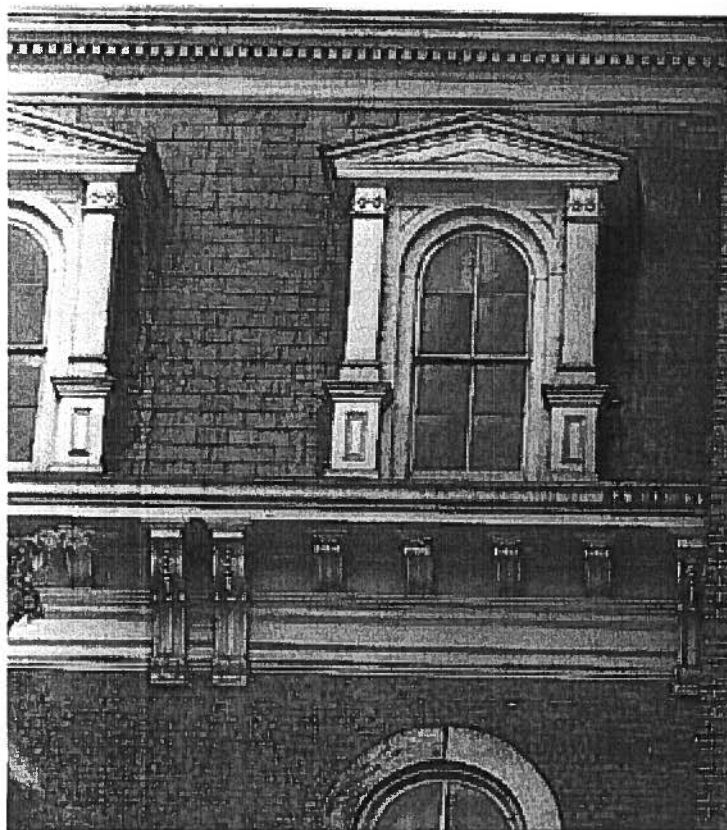
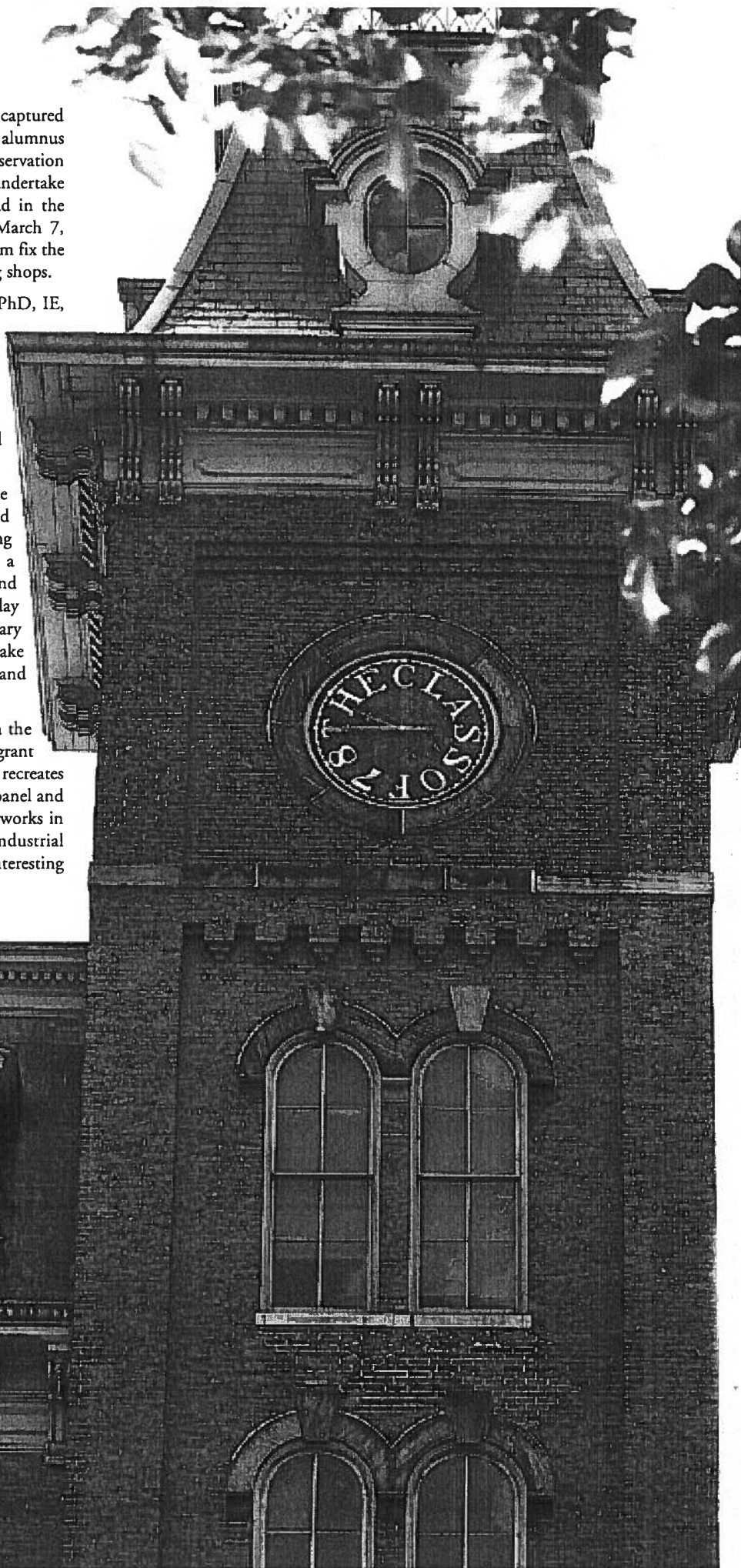
The clock was installed in the west tower of University Hall, where it kept classes running on time for 60 years. When the building was razed in 1938, the clock was put in storage with the intention of reinstalling it in the new Illini Union building under construction. Sometime in the three-year construction period, the drum mechanism, which helped drive the main gears, was lost and replaced by an electric motor. Eventually, an additional electric motor was installed to run the hands of the clock.

More than a century later, the old clock works captured the imagination of U of I geography professor and alumnus Bruce Hannon. With interests in both historic preservation and horology, or the study of clocks, he decided to undertake the restoration of the original works. He ran an ad in the student engineering newspaper *North of Green* on March 7, 1988, that called upon engineering students to help him fix the clock that had originally been built in the engineering shops.

According to a paper written by Michael Dorneich (PhD, IE, 1999) for an independent study course in geography, the main restoration crew included himself and fellow students Byron Colvis (BSME 1991), Steve Cosper, Mark Dieringer (BSME 1991), Sue Dileto (BSME 1989), Andrew Meinert (BSME 1989), Eileen Prior (BSME 1989), David Reuter (BSME 1990) and Karl Wasegren.

The group worked all summer and through the fall in the University Foundry, disassembling and meticulously cleaning the works and reconstructing missing pieces with the help of Michael Westjohn, a machinist in the Roger Adams Lab. Westjohn and Hannon continued to work intensively over the holiday break, and the clock was assembled and tested in January 1989. That semester, the Class of 1989 decided to make the restored clock, along with funds for its housing and upkeep, its senior gift to the University.

The 1878 clock is now beautifully on display in the south Rosenthal Gallery of MEL, made possible by a grant from Lorelei and Ben J. Rosenthal. The display case recreates details of the original clock tower but features a glass panel and transparent dial that allows visitors to view the clock works in action. The Department of Mechanical and Industrial Engineering couldn't be prouder to have such an interesting piece of its history back home again.



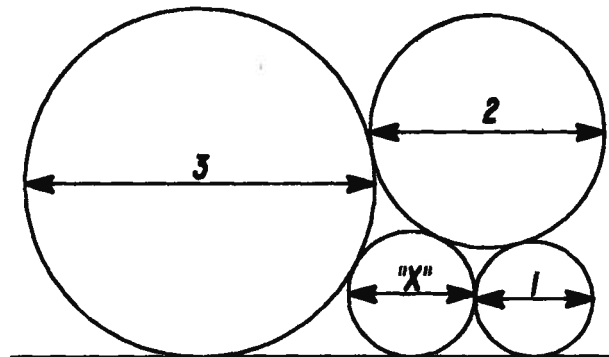
To: Thomas, Stephen P.
Subject: MATH PROBLEM

IN THE 1870s THE FOLLOWING MATHEMATICS PROBLEM WAS GIVEN TO MATH AND ENGINEERING STUDENTS AT THE UNIVERSITY OF ILLINOIS AND SAID TO BE A PROBLEM WHICH HAD NEVER BEEN SOLVED, AND PROBABLY WOULD NEVER BE SOLVED. TWO QUESTIONS:

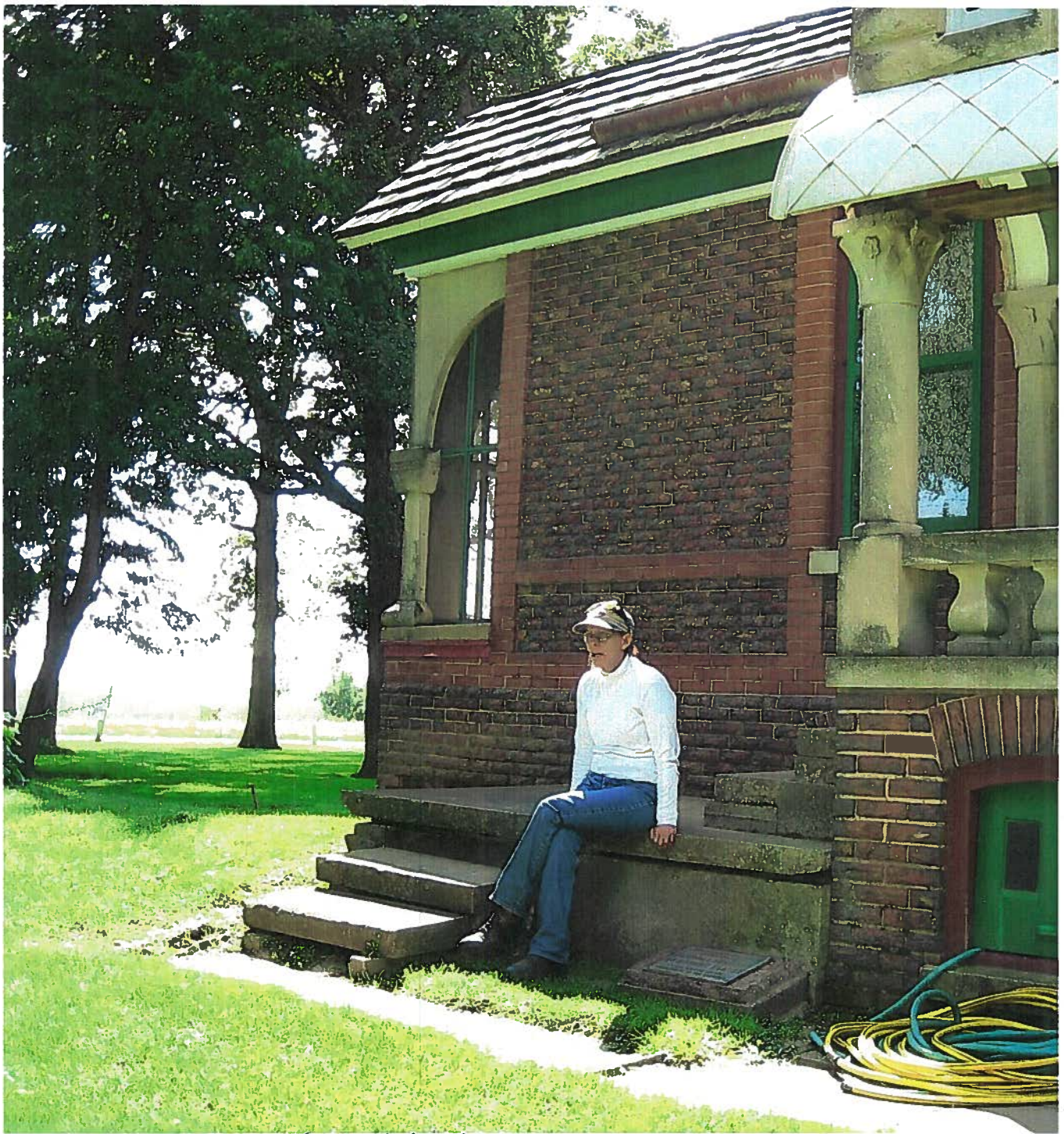
1. IS THIS AN EQUALLY DIFFICULT PROBLEM IN 2014?

2 CAN YOU SOLVE IT?

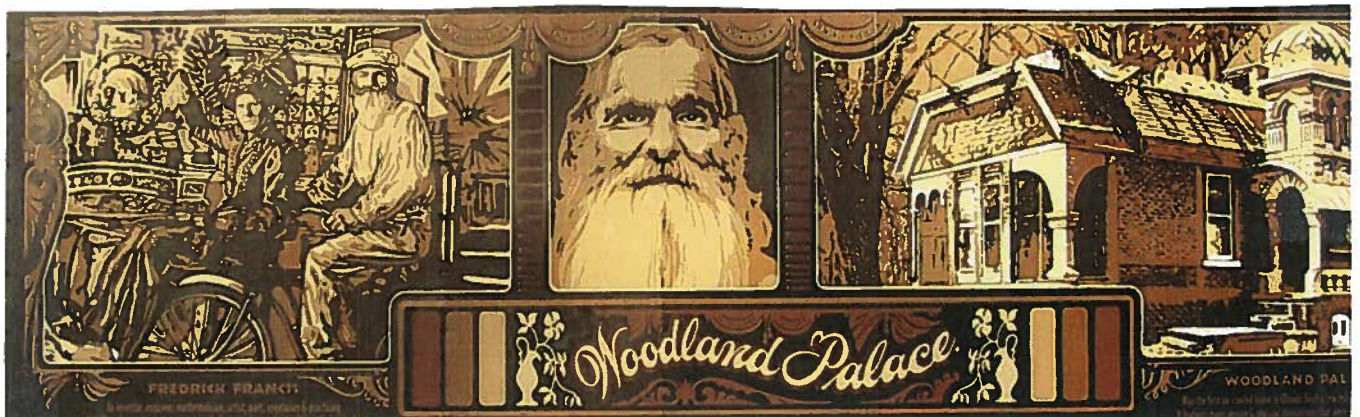
The glass display case and the glassed-in cupboard at the west end of the fireplace room show many articles of Fred Francis' memorabilia. Directly above the display case is a geometry problem, once considered unsolvable, that he solved in 1890. The task was to calculate the diameter of the Circle 'X' to fit between the straight line and the other three circles whose diameters are 1, 2, and 3. No one had ever solved this problem mathematically. Fred's answer to the problem was that the diameter of Circle 'X' equals 1.090943 plus. The work contained over a thousand terms, and took him nearly twelve years to complete. He used a mathematical method never used before, and in 1890, he dedicated the proof of having solved the problem to the I.I.U.



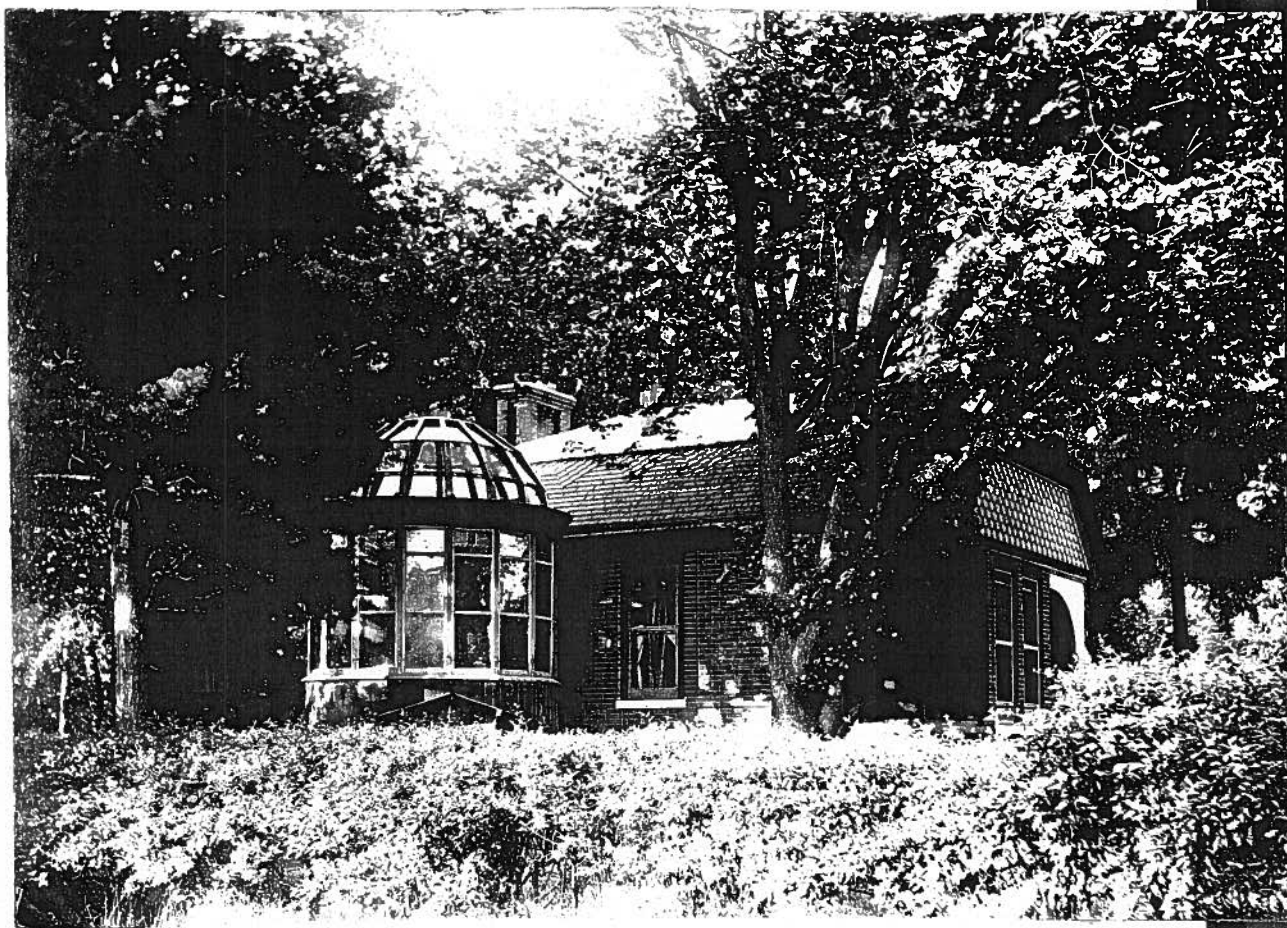
FIND THE DIAMETER OF CIRCLE " X "

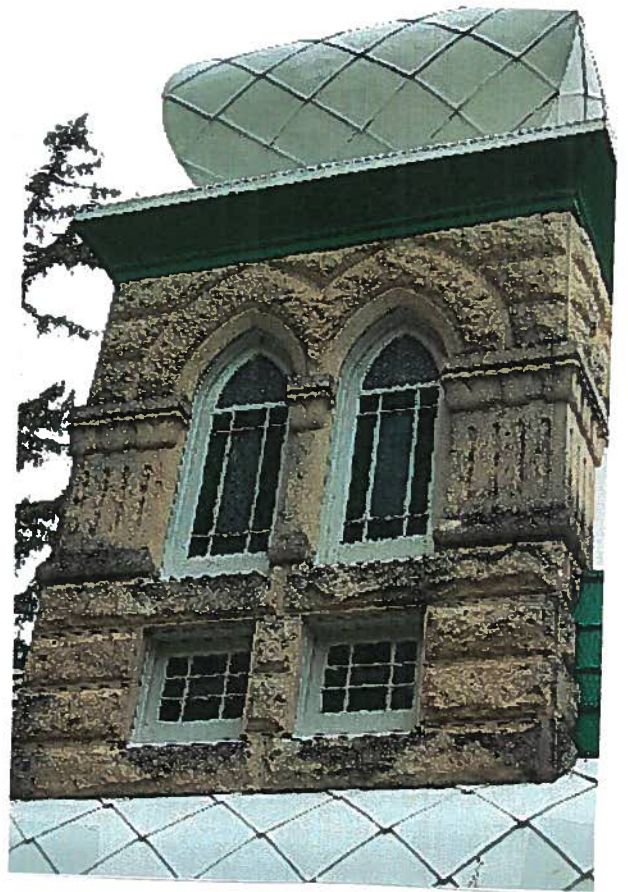
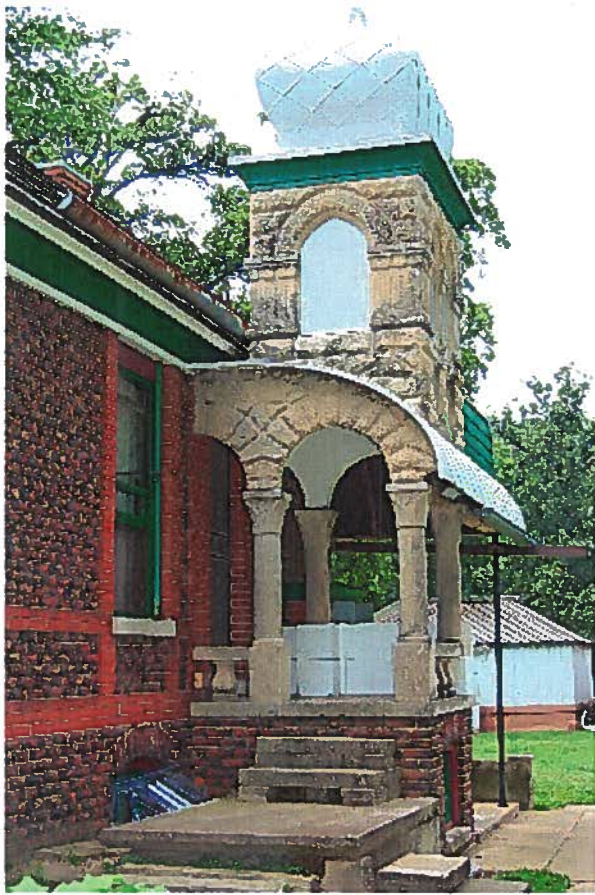


June H. (caretaker) - Waiting to start a tour.



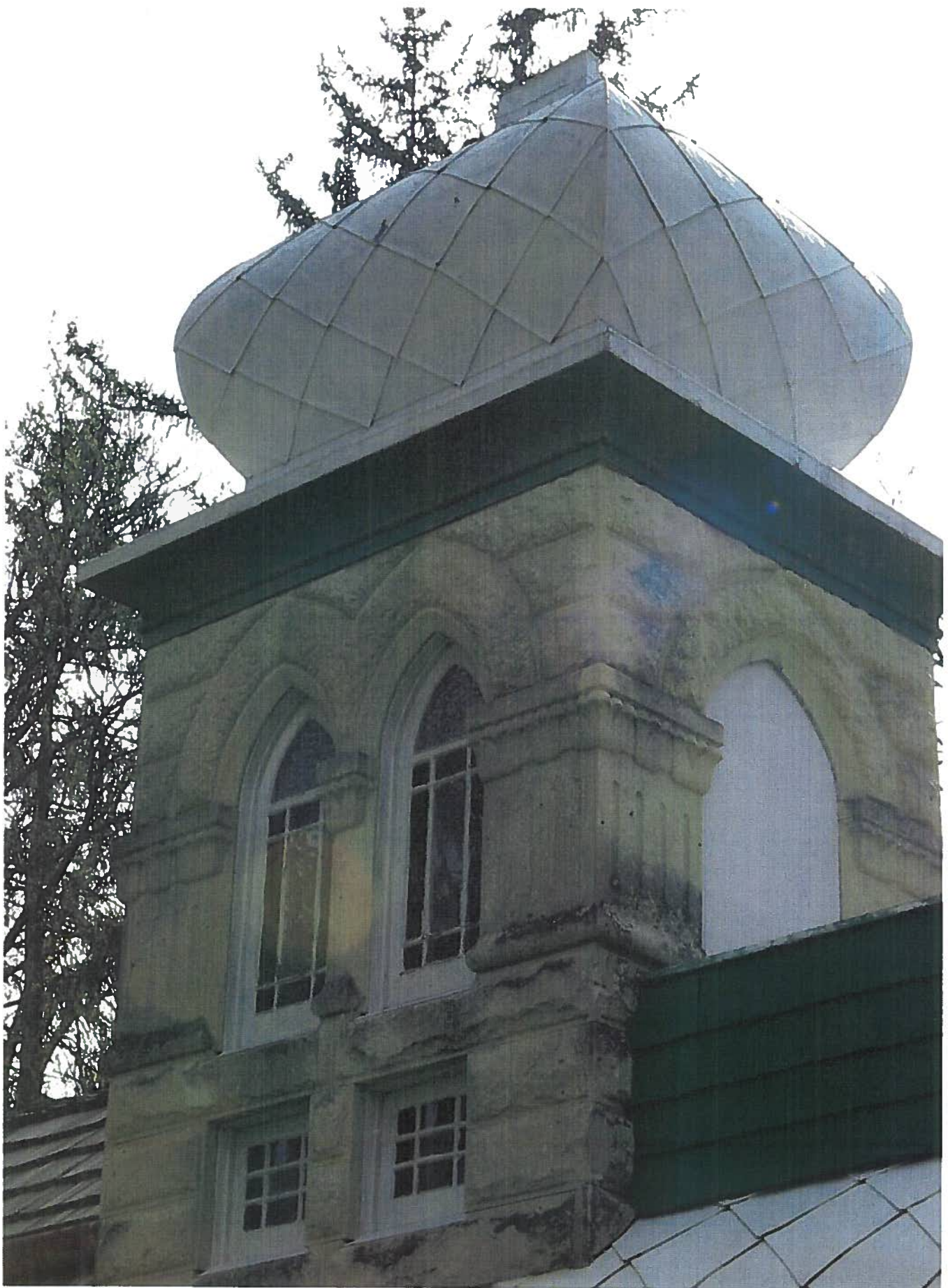






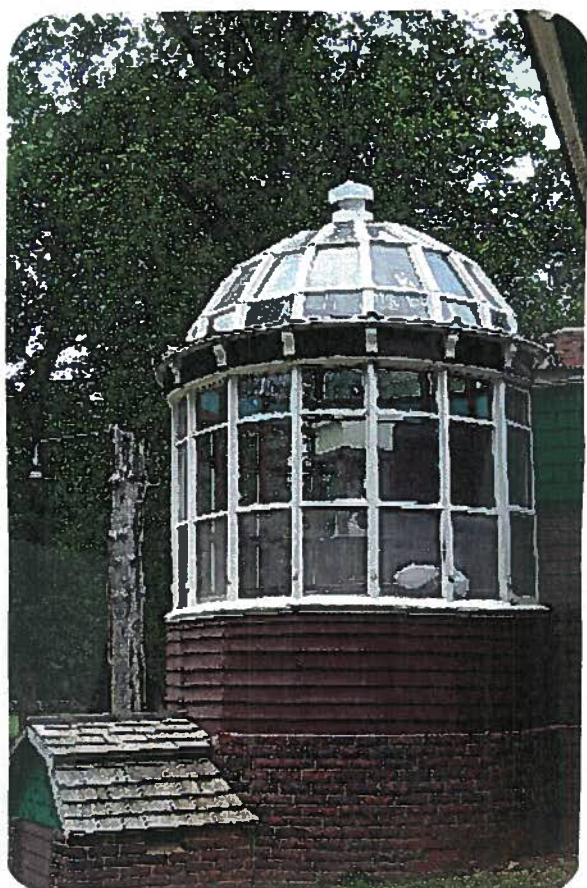


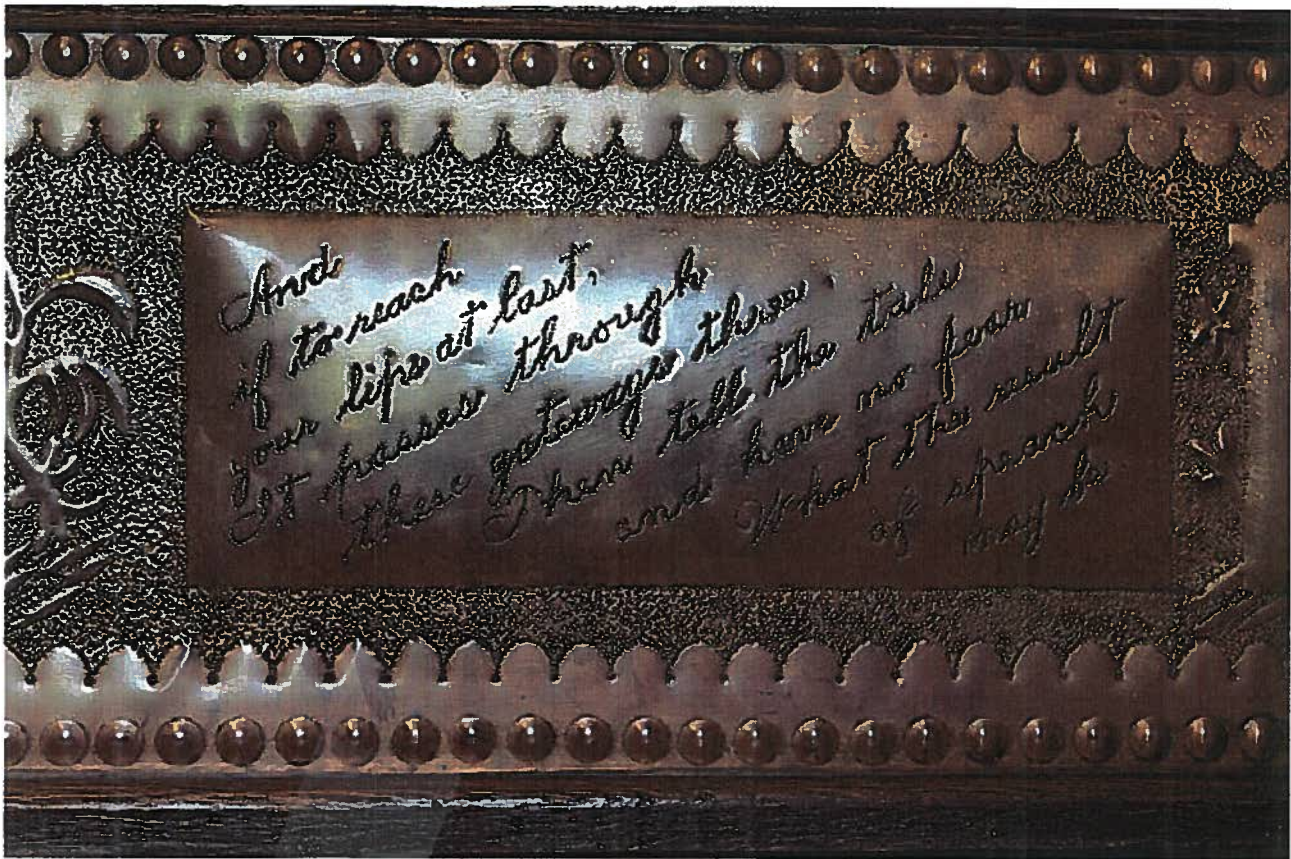
© dreamstreamr 2013

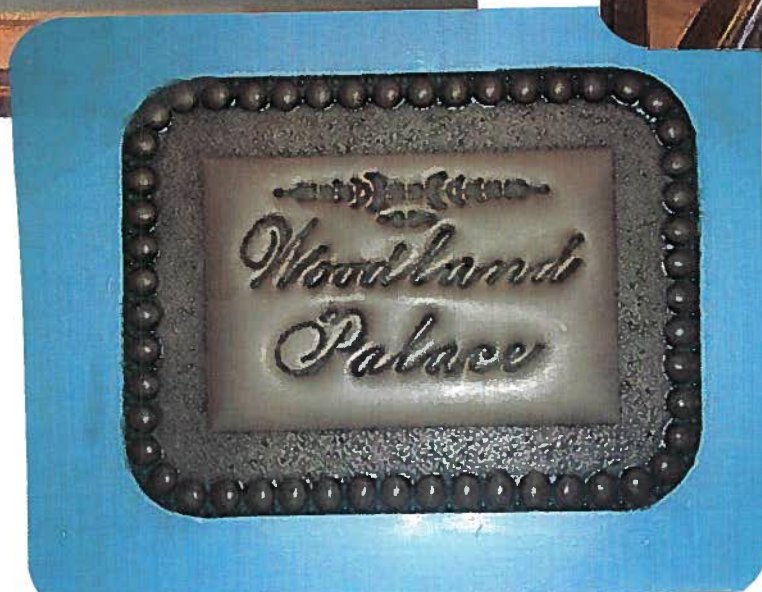
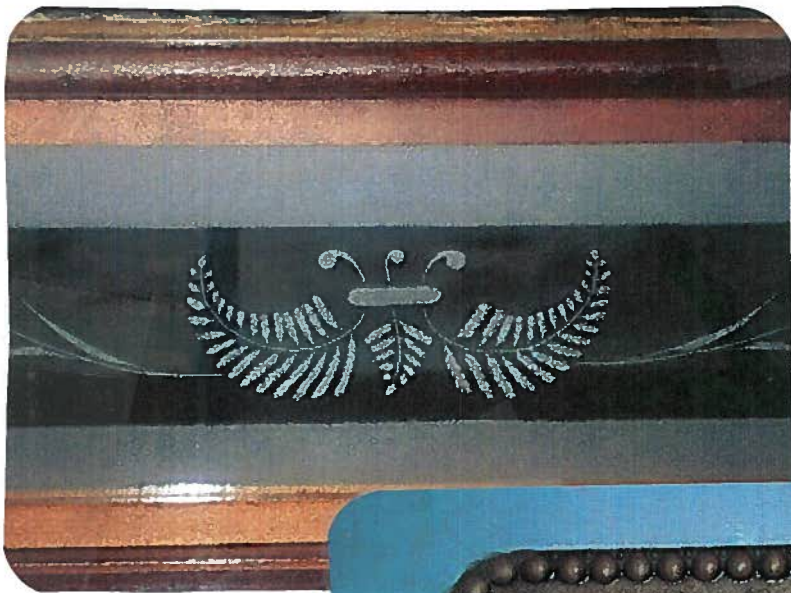


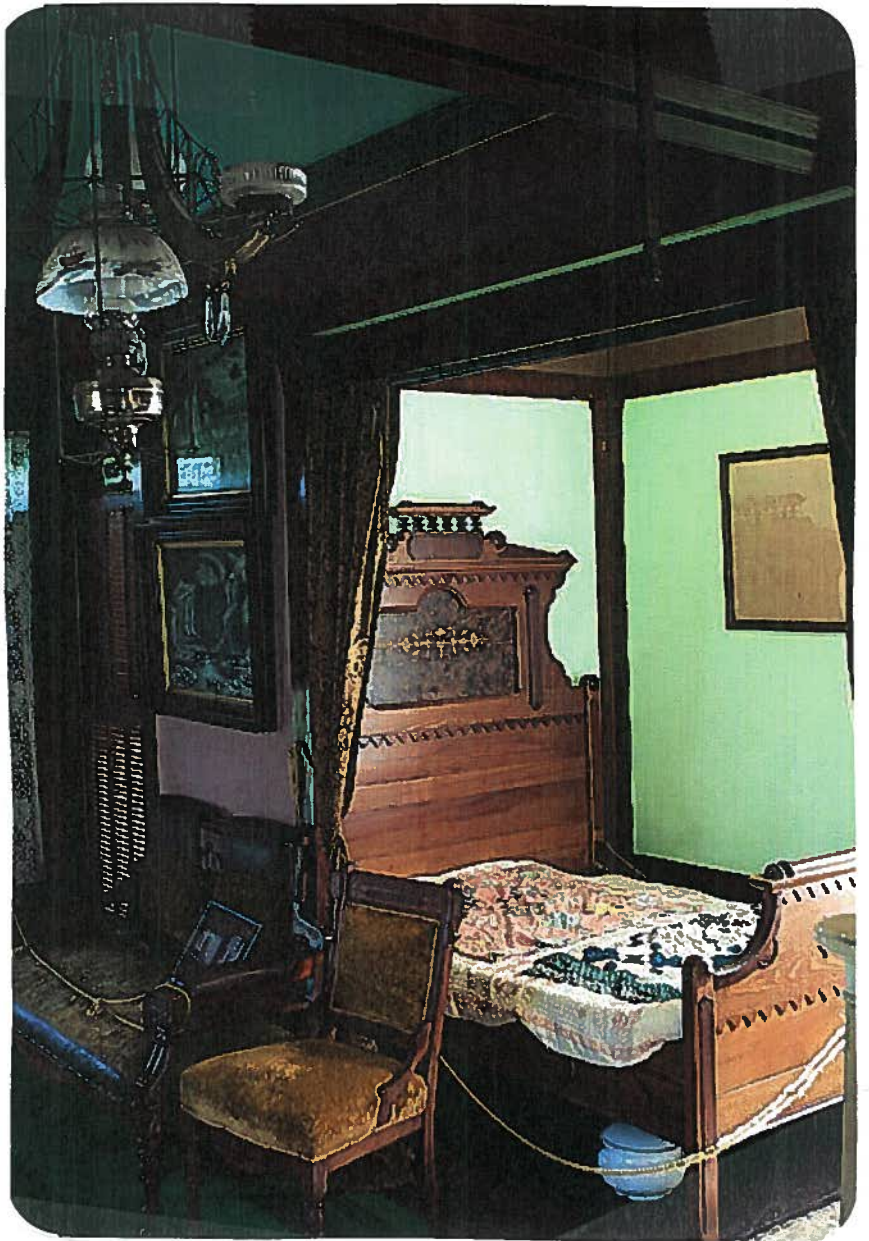
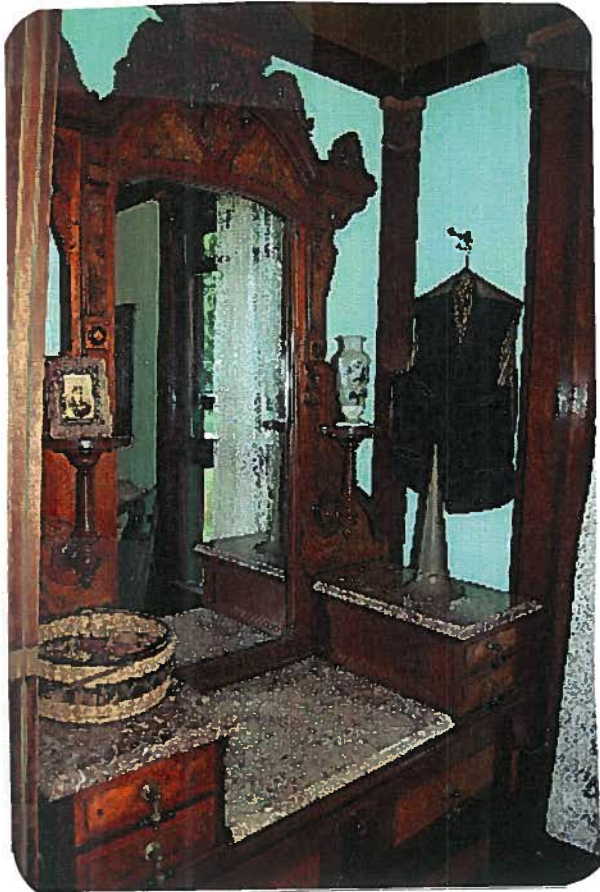
Close



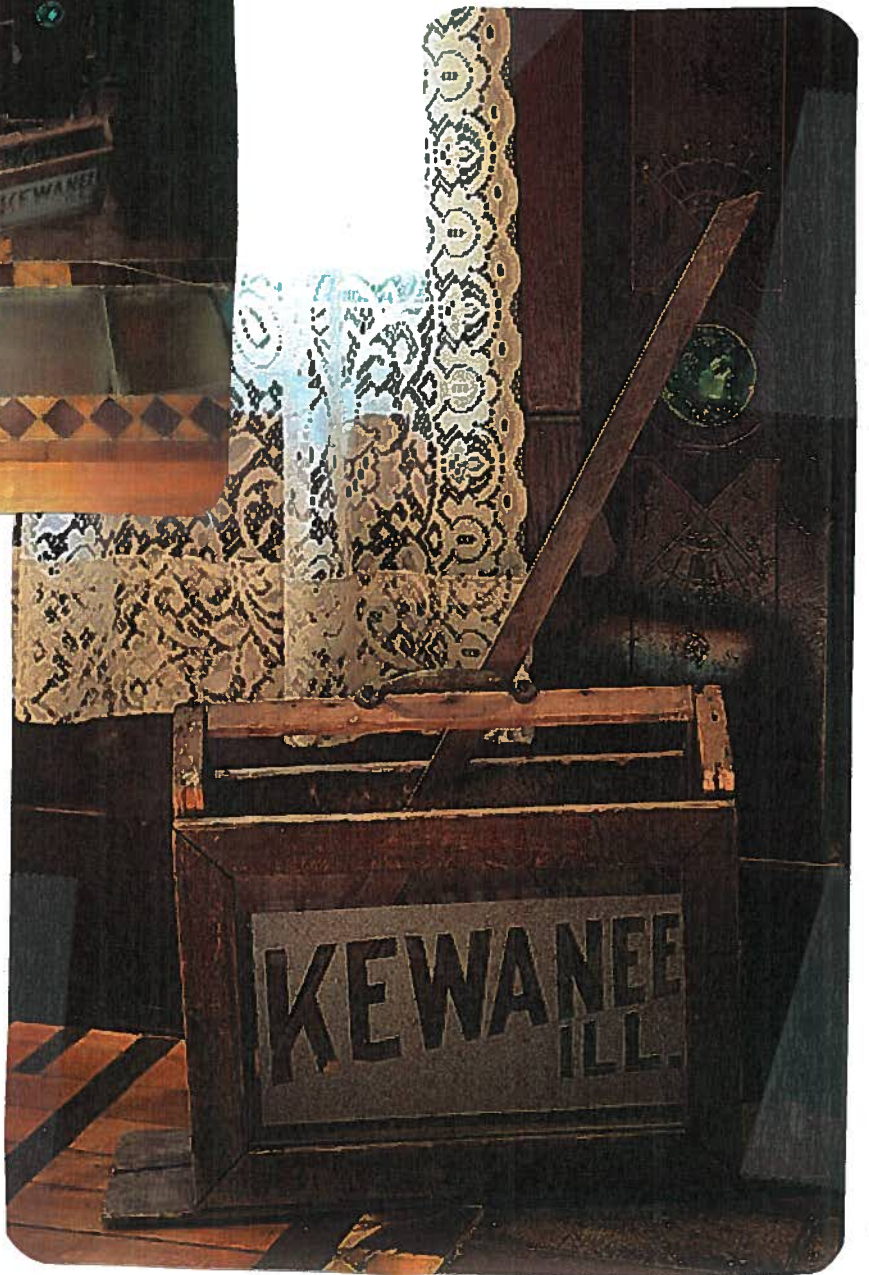
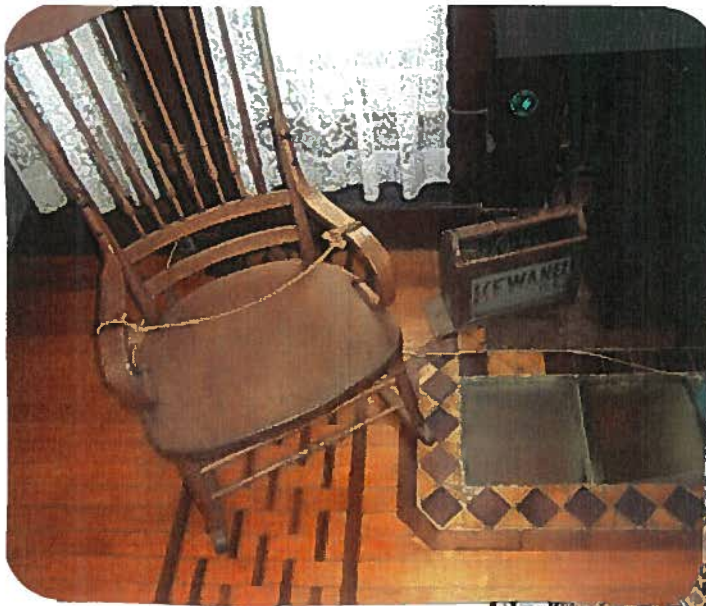


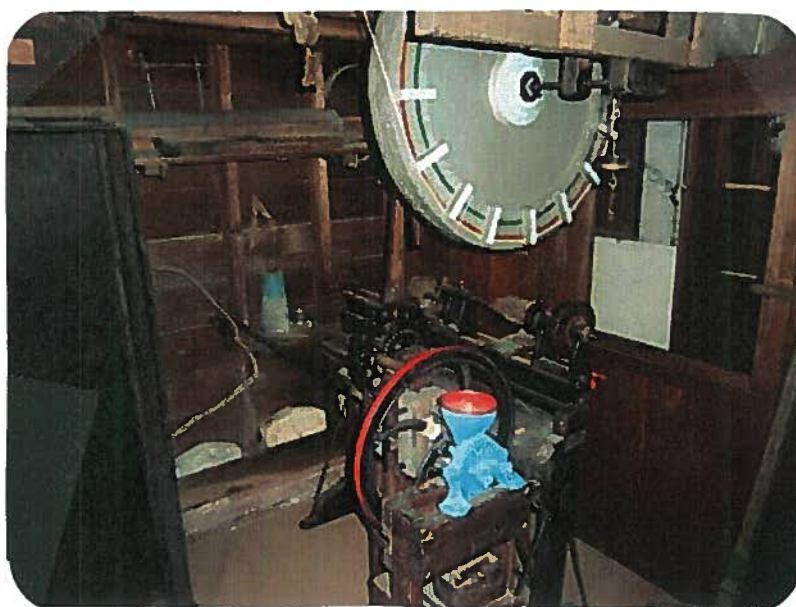














Metal shoe soles



Wooden snow shoes