THE FRANCESTOWN HERITAGE MUSEUM

Newsletter

Vol. 9, No. 8

AUGUST 2023

BELLS

FOR WHOM THE BELL TOLLS. . . . .

We received an interesting question from an area Historical Society concerning the bell in the steeple of the Old Meeting House here in town.

Residents will know that this is the third bell:

- the first was installed in 1809 and cracked in 1854 when they installed a new and heavier tongue.

- the second bell arrived in 1855 and was rejected by the townsfolk who did not think the

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JULY WHAT'Z IT –

The July What'z It was pretty straight forward. We even told you what it was. It is indeed a punch.

Since the shape suggested the heel of a shoe; and since our ancestors shoes had leather heels, we went to the source, a centuries old leather tool maker in NJ, C. S. Osborne Co. They were very helpful and sent us a photo of a similar cutting die from their 1892 Catalog. While the catalog item below is that of a die, they did also make a similar tool for manually cutting out pieces of leather suitable for shoe heels. Our punch above is similar to those used by a leather worker and quite likely to cut out pieces of leather suitable for shoe heels. Ω


C. S. OSBORNE & CO.

LEATHER, CLOTH AND PAPER CUTTING

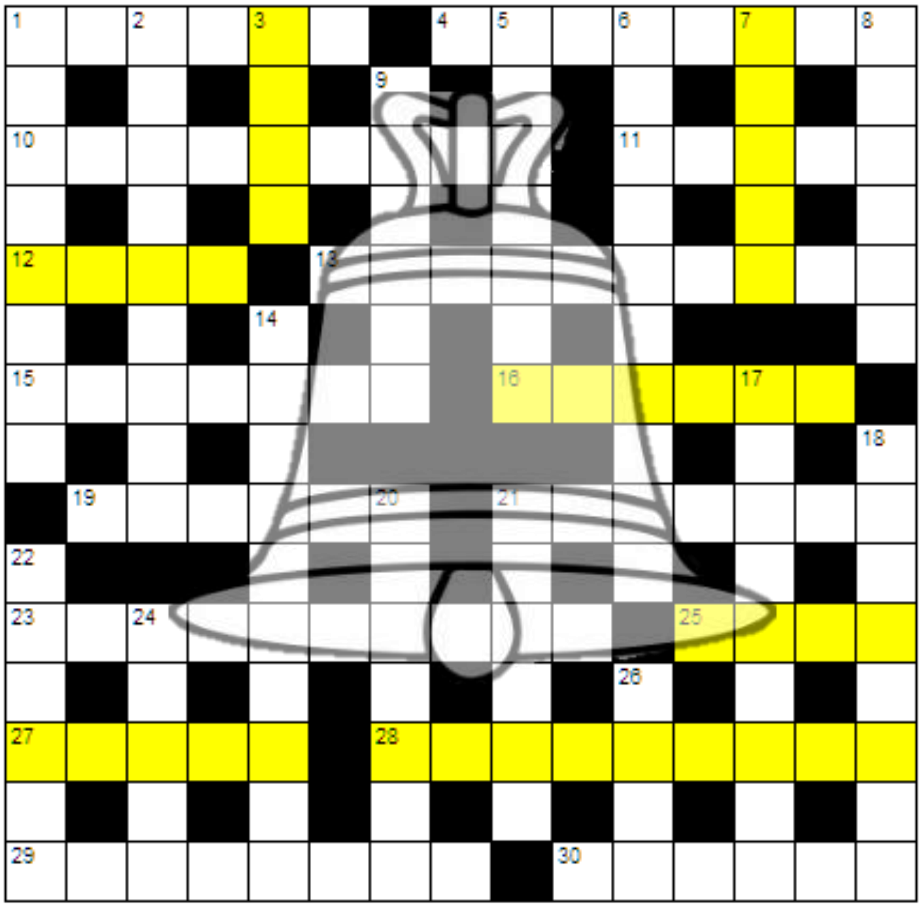
DIES.

MADE TO ORDER

Send pattern of the work you want to cut, and we will send cost of the die.

AUGUST THEME CROSSWORD

The yellow blocks contain the theme words and all come from the text of this newsletter. Enjoy!



ACROSS

1. Straight
4. Peak
10. Place to discard old metal
11. What goes into a mortise
12. WHAT A BELL DOES
13. ANOTHER NAME FOR A COWBOY
15. NEPTUNE'S FORK
16. ITEM USED TO STRIKE A BELL
19. Ancient
21. Dress to the nines
23. A Baltic language
25. THE BODY OF A BELL
27. A DIFFERENT ITEM USED TO STRIKE A BELL
28. WHAT A BELL IS
29. Misrepresentation
30. Like many marathon winners

DOWN

1. Look before you leap
2. Breathtaking; gripping
3. STRONG CORD
5. Comprehensive
6. Occurring at random
7. LEATHER CUTTING TOOL
8. Time in office
9. Gambol
14. Reduce the population
17. Study of origin of a word
18. An Irish rascal
20. A bridge expert
21. A pregnant woman
22. Display ostentatiously
24. Arbor Vitae genus (this is for all you gardeners)
26. Recess in a church

ANSWER ON PAGE #8

CONTINUED FROM PAGE # 1

FOR WHOM THE BELL TOLLS. . . . .

bell was large enough or heavy enough and did not produce a pleasing tone.

- The third, and current bell, was installed in October of 1855 after rebuilding and strengthening the spire.

For the years since, it has hung in the bell platform of the spire tolling each hour. In addition it is also used to toll for a special occasion such as the town's recent 250th.

The clock was not installed until 1912 when alumni of Francestown Academy donated the clock to the town. Prior to the installation of the clock the bell had to be manually rung by tugging on a rope up in the attic.

However, the question we were asked centered around how the bell can toll when struck manually or automatically by the clock.

Before getting even further "into the weeds", how about a quick primer on the anatomy of a bell. Yes, that simple metal object has an anatomy; or I suppose we could call it the nomenclature. See figure below:

Now that you know the nomenclature, the obvious questions is, "What is a bell?" No, not a metal thing that goes clang when struck – rather "A *directly struck idiophone percussion instrument*" (remember this when doing this month's crossword). "*Shaped like a hollow cup, the sides act as a resonator and vibrate in a single tone when struck".* Now the important part as it relates to the question we were asked in the beginning. *"The strike can be made by an internal clapper known as an uvula* (another good candidate for the crossword) *or the strike can be made by an external hammer."*

These two means of striking describe the bell in the Old Meeting House and other large bells. The question posed to us was "how can the bell be struck by swinging or by an external hammer? Doesn't the fixed hammer get broken when the bell swings?" Apparently not as that is the case with the bell in our Old Meeting House and with other large bells.

To better answer the question, we took a trip over to the Old Meeting House and up a set of stairs to the balcony level (no elevators back in those days – our ancestors were made of stern stuff). This became more evident as we climbed another less finished set of stairs to the attic level. From this point our quest is best conveyed through a series of photographs.

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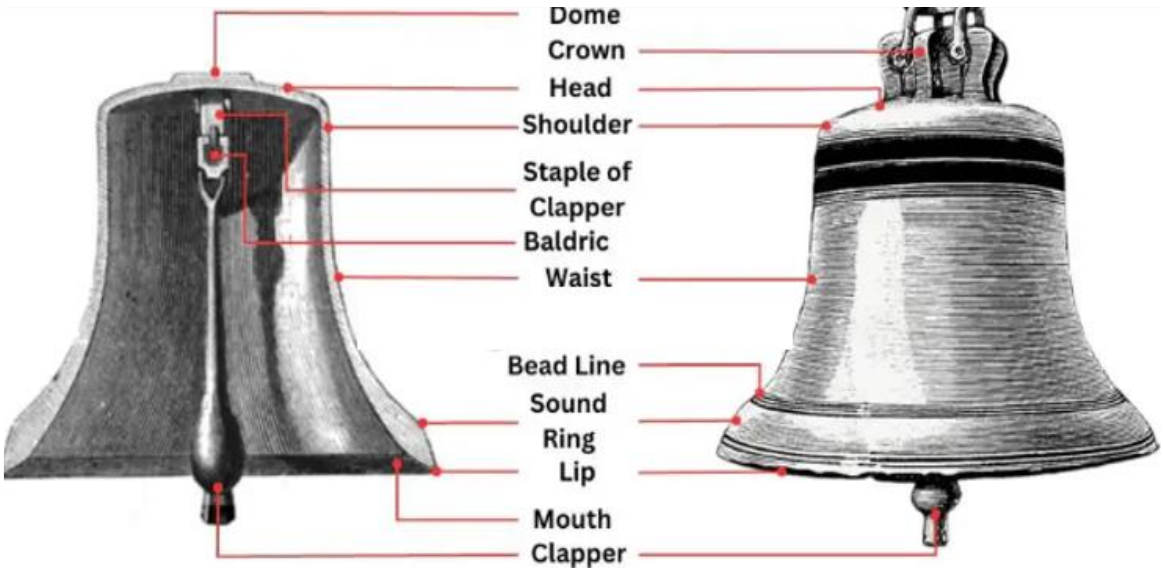


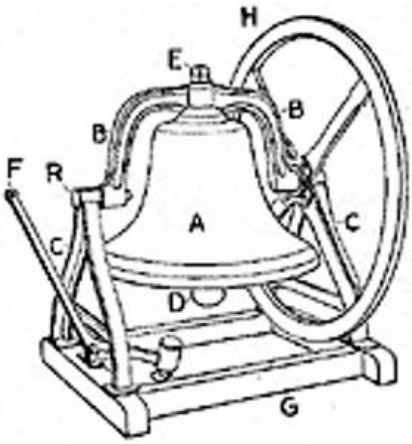
Now really – did you know there were this many parts to a bell?

From that attic the trek upward requires scaling a set of what passes for stairs up through a hatch in the floor. The head beam supporting this next level is strategically placed over the stairs at head height – ouch!

It only gets more challenging as one leaves the clock room and heads for the bell platform up a ladder that has indeed seen better days. The climb is further complicated by a steel cable stretched across the ladder just below the point where you have to let go of the ladder to open yet another overhead hatch, this one leading outside to the bell platform. Fortunately the lump on your head from the beam over the first set of stairs is still an unpleasant memory but does remind the climber to watch the overhead when going up through this hatch.

But the venture has its rewards as the view is spectacular. Note Mount Monadnock ~18 miles in the distance.

But we have not made this climb upward in the Old Meeting House to observe the view, but rather to see the bell up close.



A – BOWL
B – YOKE
C – STANDARDS
D – CLAPPER (UVULA)
E – STAPLE of CLAPPER
F – HAMMER
G – FRAME
H – WHEEL
R - BEARING

Since we've already shown you the anatomy of a bell, – how many of these parts can you identify on the Old Meeting House bell.

Prior to the donation of the clock, the Old Meeting House bell could only be rung by swinging the bell causing the clapper to strike the bowl at the Sound Ring. To swing the bell one would hike up to the attic and tug on the rope that extended up through the clock room to the bell platform. While it does not affect the clock or the bell, I know that if I do not say something I will receive numerous questions. So, the object in the circle is the pendulum for the clock in the clock room above. It is suspended from the clock by a steel shaft and swings in an arc of about 4'.

The rope extends up through the floor of the clock room, through the clock room, up through the platform of the bell tower and into the groove on the bell wheel. Tugging on the rope thus causes the wheel to turn, swinging the bell back and forth in an arc.

ROPE IN GROOVE OF BELL WHEEL

With those steps in mind, you should now be able to manually ring the bell in the Old Meeting House or indeed in any old building with a large bell. The question is still unanswered as we need to understand how the bell is struck automatically by the clock. We should probably best start with the clock itself.

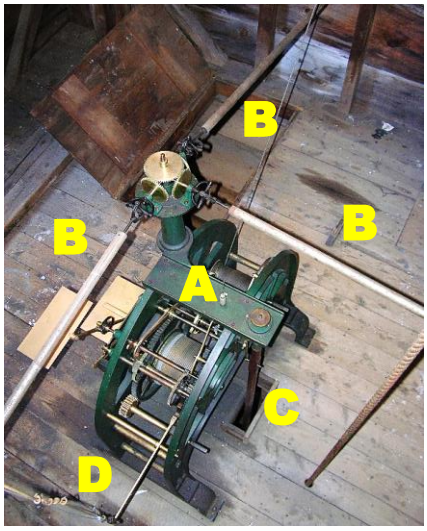
This is the clock, donated in 1912, as viewed from above.

A = The Clockworks

B = the shafts leading from the clockworks to the hands on the clock outside the building tower

C = The shaft for the pendulum extending down to the 2nd floor

D = Trip mechanism for striking the bell



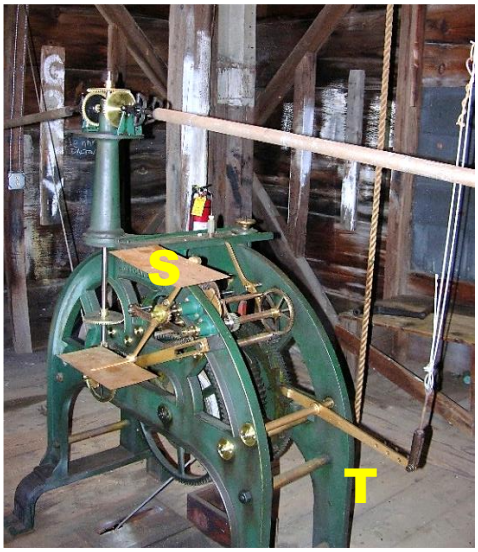
This would be a side view of the clockworks as viewed from floor level.

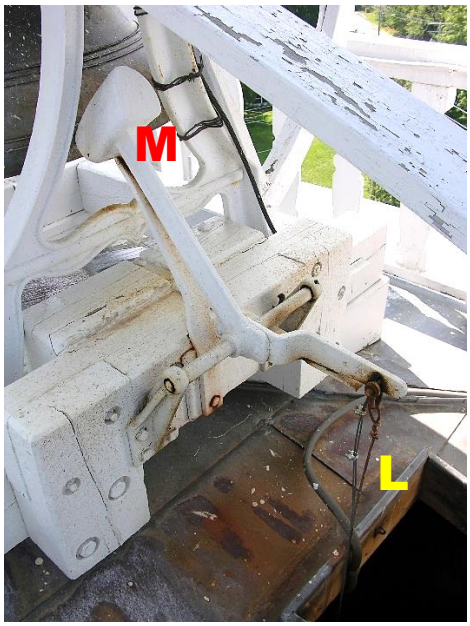
This would be the mechanism on the clock that causes the hammer to strike the bell.

R – When the clock reaches the hour it activates the mechanism that starts the strike mechanism (Visible in photo above).

S – The governor, that controls the speed of the strike, starts to spin -

T – causing the control arm to pull down on the cable that goes up through the clock room to the bell tower platform and out to the hammer.





The white striking hammer and the gray bell are visible in this photo.

L – is the cable from the clock striking mechanism control arm down in the clock room (T in the previous photo) attached to the hammer.

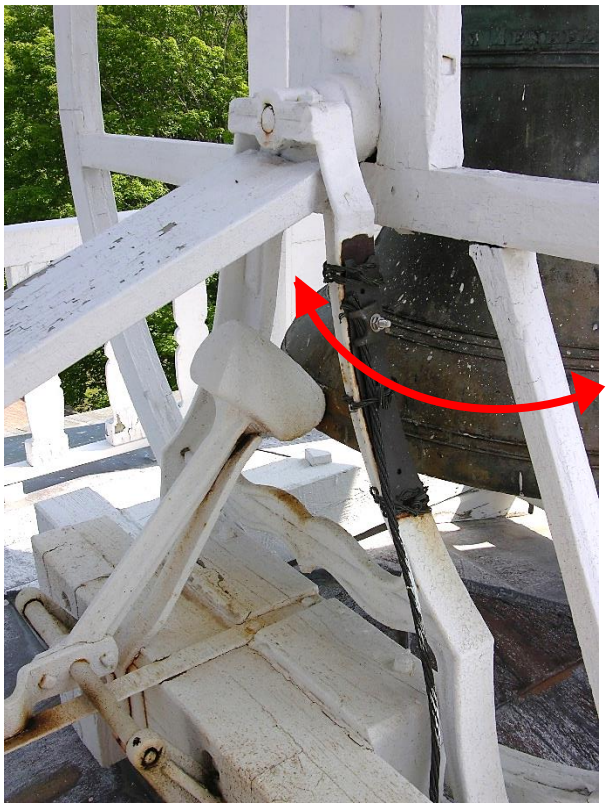
M- Striking hammer.

The clock control arm pulls down on the cable; it in turn pulls the hammer away from the bell. When the clock control arm releases the cable it then allows the hammer to fall and strike the bell creating the pleasing tone we all know.

There lies the answer to the question we were asked that appears back on page 1 of this newsletter. How is it that the manual ringing of the bell swinging back and forth does not break the hammer. As you can see in the picture, the hammer is slightly above the rim of the bell on the side. Thus the bell can be rung by manually swinging it back and forth as the hammer is just to the side of the bell and slightly above it.

All that said, the person ringing the bell manually has to first disengage the striking mechanism on the clock. This is because if the bell was struck manually by pulling on the rope and swinging the bell just as the clock was trying to strike the bell with the hammer, the swinging bell would collide with the hammer and break it.

The red line represents the direction of swing of the bell. Forward and backward at right angles to the hammer. Ω



JULY 4TH

Francestown recently held its first fourth of July event. Sponsored by the Francestown Recreation Department, the day started as many have this June and July with downpours and oppressive humidity. But Mother Nature took us under her wing and about 2PM the skies brightened, the rain stopped and soon the activities were in full swing. There were numerous games for the kids and pickleball and other sports activities for the older set. The hot dog eating contest was well attended and the pet parade was unique. The day included many other events and we would like to thank all those who stopped by the museum which set a day's record of 121 visitors. The day ended as all fourth of July festivities should, with a spectacular 30-minute-long fireworks show compliments of the Bitterli family.

YOUR APHORISM FOR THE MONTH –

A museum is a portal to earlier times. Ω

FRIDAY AFTERNOONS . .

Remember that the Heritage Museum is open every Friday afternoon during the summer from 4-6 PM concurrent with the Farmers Market. While everything in the museum is old, everything at the Farmers Market is new and fresh. So stop by and get some fresh provisions and cool lemonade from the young ladies at the 4H stand. Then walk down to the end of the parking lot and enter the "portal" to learn how your ancestors lived. Ω

THE FRANCESTOWN HERITAGE MUSEUM NEWSLETTER

Subscription – there is no subscription cost. The Newsletter is distributed by the Museum via BCC e-mail at no charge.

For any of the following contact Bill McAuley at: wfm03043@comcast.net

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PUZZLE SOLUTION