

The Case for the Objects on the Weather Cover over *Titanic's* Forward Grand Staircase Dome as Scaffolds

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Introduction

The purpose of this article is to make the case for a new identity for the “dark objects” located port and starboard (p&s) on *Titanic's* forward weather cover over the forward grand staircase dome as scaffolds. The case will also be made that the boards on the roof of the tank room are also part of a scaffold.

Overview

The advent of the modern era of *Titanic* research began in earnest after the release of James Cameron's film “Titanic” in 1997. What gave rise to an increase in research efforts was the explosion information available through Harland and Wolff. Many questions about *Titanic's* structure were answered but some have persisted. One question had to do with the identity of the “dark objects” on the p&s sides of the weather cover over *Titanic's* forward grand staircase dome. For the time being, these will be referred to as “dark objects” but later in the article, the case will be made that they are scaffolds.

There have been numerous identities proposed for the “dark objects”. They have been variously identified as ventilating devices for the weather cover, boards to keep a canvas cover over the weather cover skylight panes from adhering to the panes if frozen, and boards to be used as awning rafters in the area aft of the first funnel of the roof of the of the officers' quarters deckhouse. This last identity is the one that has endured until the present time. These identities were proposed because there were no close-up photos or plans of these “dark objects”. Figure 1 is about the best photo that we have of *Titanic's* “dark objects”.

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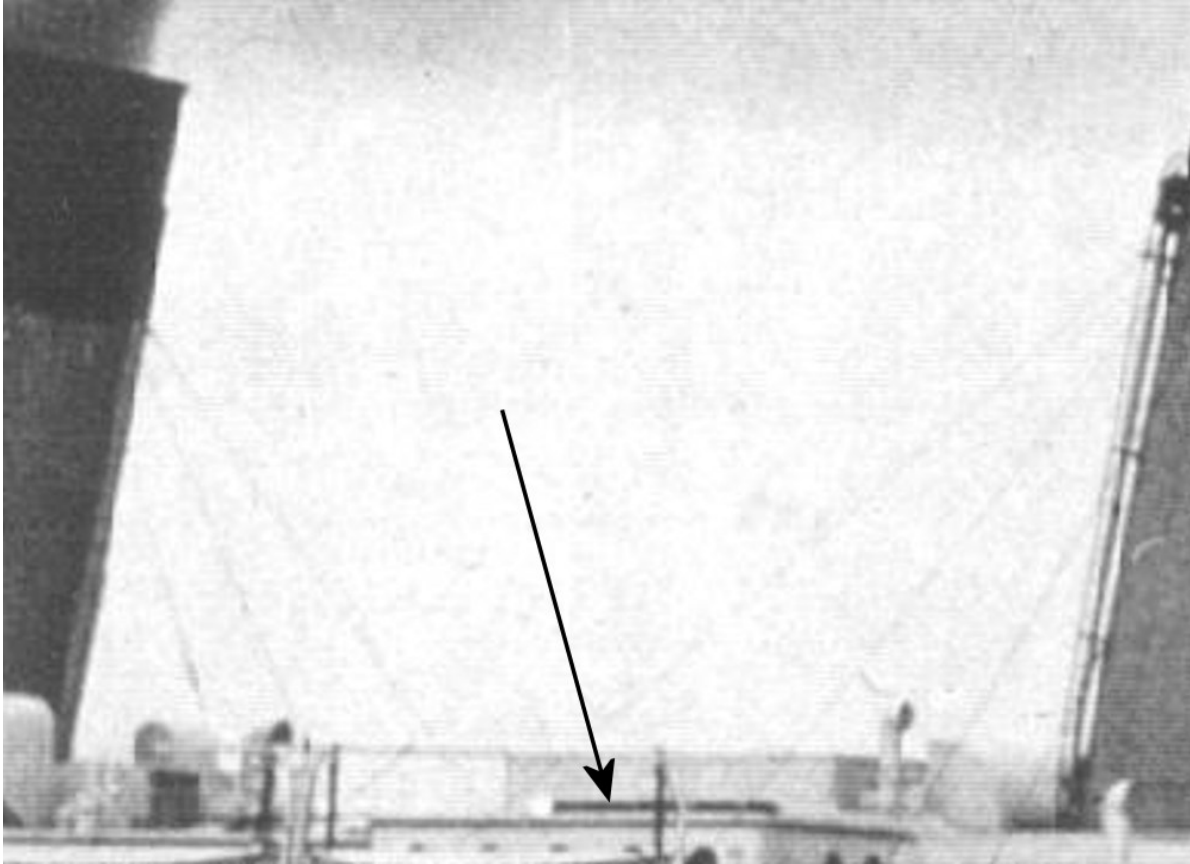


Figure 1

“dark objects” identified on *Titanic’s* weather cover over the forward grand staircase dome

Some of the best early evidence came from early *Olympic* photos that gave a clearer view of the “dark objects”. Figure 2 shows a closer view of the “dark object” on the port side of *Olympic’s* weather cover.

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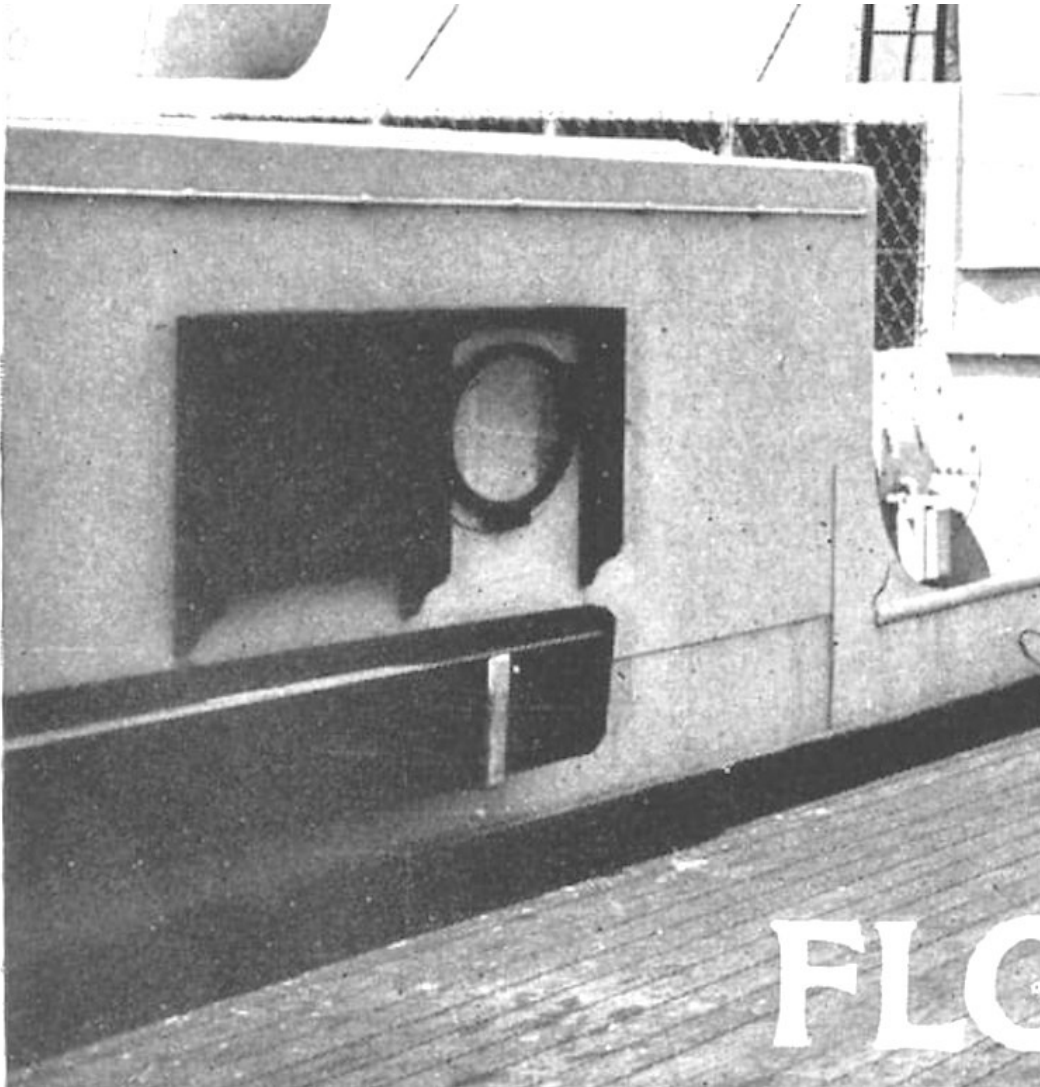


Figure 2

1911 photo of a “dark object” on *Olympic’s weather cover*

Even though Figure 2 was a closer photo, it was still difficult to make a positive identification. This photo had been one of our best photos of the “dark objects”.

It wasn’t until a summer 1912 photo of Olympic surfaced that we now had sufficient detail to begin an analysis of the structure and identity of the “dark objects”.

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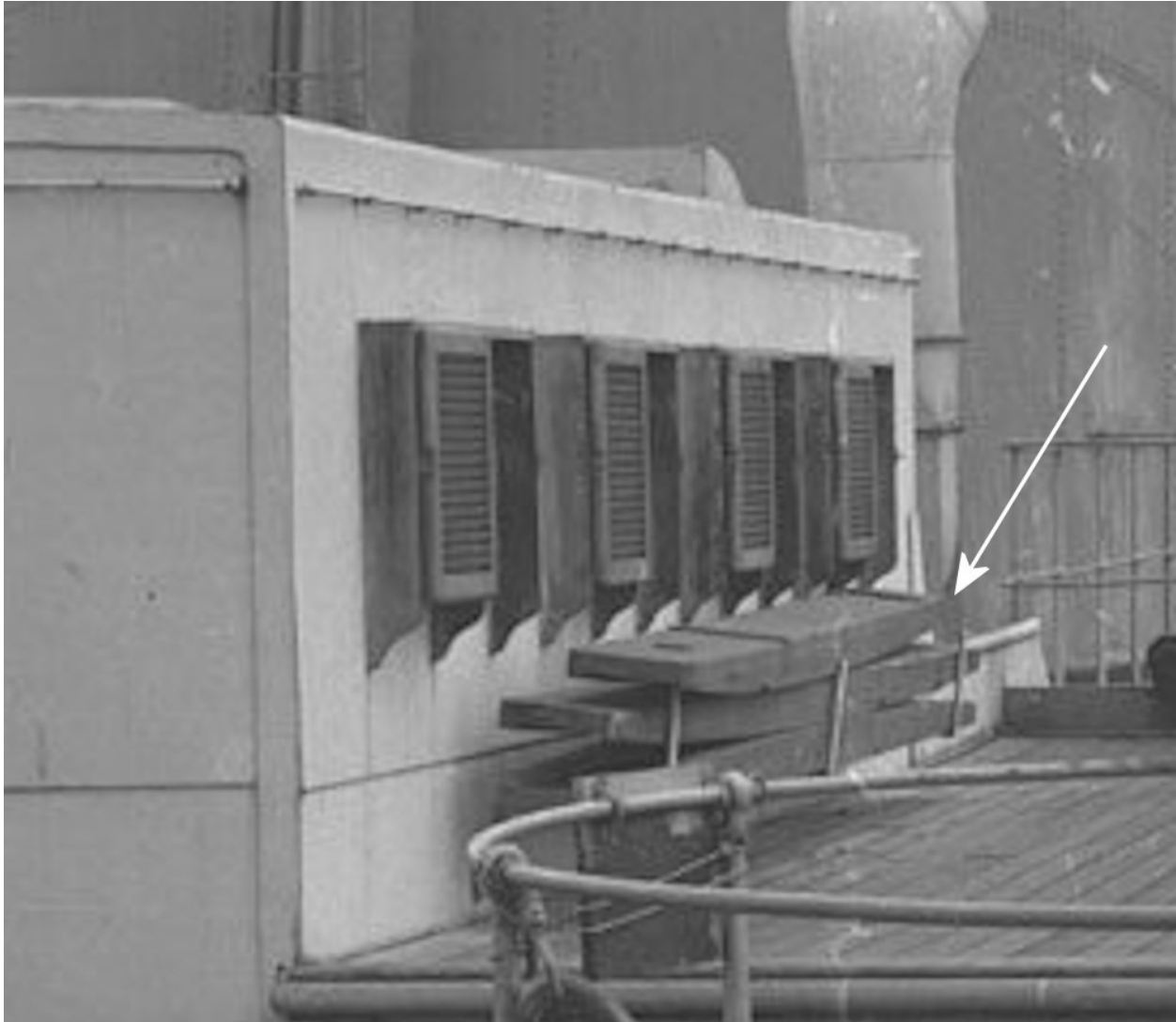


Figure 3

1912 photo of “dark objects” on *Olympic’s* weather cover

At this point we can see a difference between the *Olympic* “dark objects” and what is seen in the 1912 *Olympic photo*. What is the difference? I believe that the three objects in the 1912 photo are the same as the object seen in the 1911 photo. The difference is that rather than three objects seen in the 1912 photo, there is only one in the 1911 photo and it is stowed on its side. The objects have a curved addition on both sides of the bottom. In the 1911 photo, the curved bottom is facing outboard. We can tell that by where the sun is on the object. If it were straight, then the sun line would be straight. But what we see is that as one proceeds forward, the area in the sun is wider. This would correspond with to the wider part of the curved additions to the bottom. What we can see is that in the 1912 photo, storage brackets are wider. We can surmise that the storage bracket in 1912 was meant to hold three objects stowed on their sides like in the 1911 photo.

In observing the difference in the stowage of the objects in 1911 vs. 1912, we must ask how does this inform what the configuration was on *Titanic*? *Titanic* was a test bed for new equipment and methods of operation. *Olympic* actually usually followed the changes made on *Titanic*. Given this, it is reasonable to assume that what we see in 1912 on *Olympic* was already in place on *Titanic*. So, the stowage of three objects in brackets on either side of *Titanic*'s weather cover is most likely *Titanic*'s configuration.

Analysis of Structure

Numerous photos and plans of both *Titanic* and *Olympic* were studied and measurements were taken to determine the dimensions of the "dark objects". Figure 4 shows the dimensions of the objects.

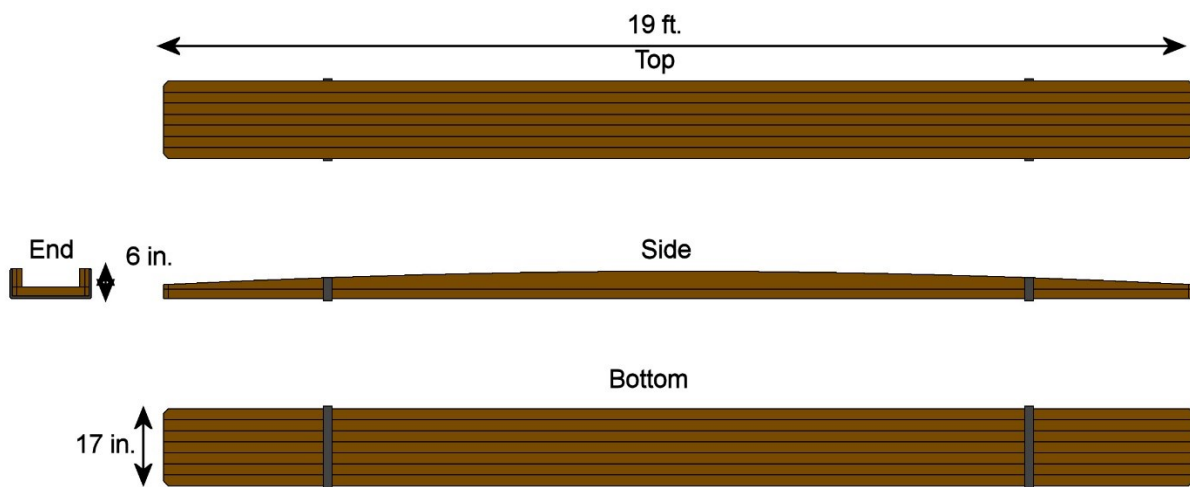


Figure 4

Dimensions and structure of "dark objects"

Using the known dimensions of structures near the "dark objects", proportional equations were used to determine unknown dimensions of the "dark objects".

At this point we can use the dimensions and configurations of the "dark objects" to determine their identity. The feature of the "dark objects" which goes the farthest in establishing their identity is what is seen in Figure 5 which is the 1911 *Olympic* photo.

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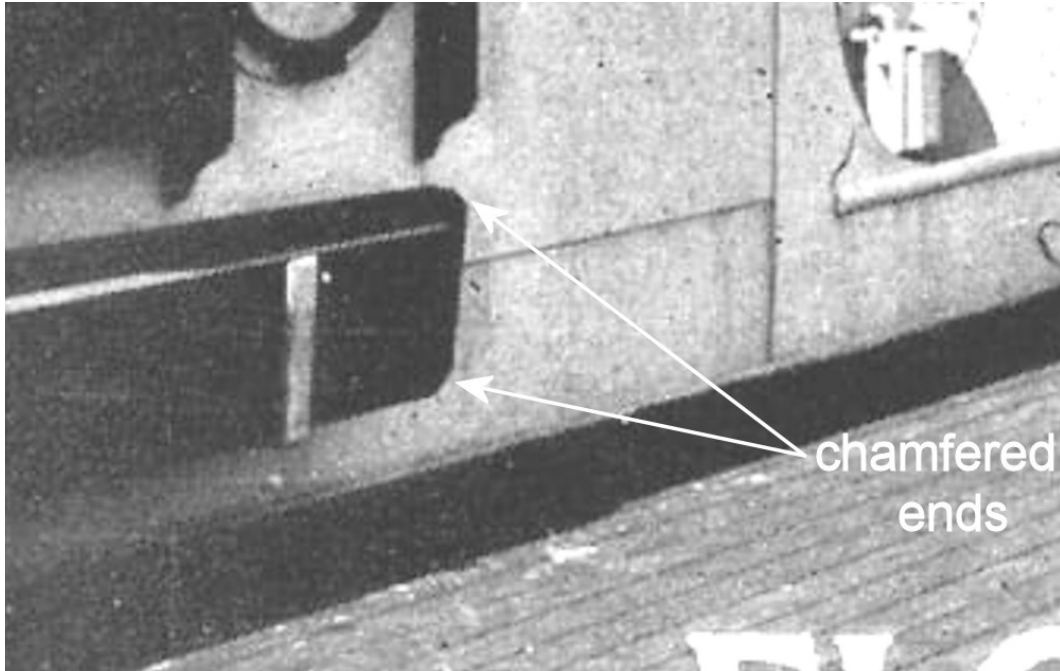


Figure 5

Chamfered ends of "dark object" on *Olympic* in 1911

Notice in Figure 5 the corners of the object are chamfered as indicated in the photo. This is a common feature of scaffold boards. Figure 6 shows a modern scaffold board with the same chamfered corners.



Figure 6

Modern scaffold plank with chamfered corners

These chamfered corners were to prevent splitting if the scaffold was accidentally dropped on one of the corners.

For a 19 ft. scaffold walking board like this, the function of the curved timbers would be to act as “strongbacks” or “stiffeners” to prevent sagging in the middle while under load which could be a point of failure. The purpose of the iron bands on either end of the scaffold is to join multiple, smaller boards together to form a single walking surface. With multiple boards, there was less of a tendency for “twisting” or “cupping” as was the case with single board scaffolds.

The proper name for this type of a scaffold is a swing stage scaffold. It is used for painting or maintenance on the sides of deck houses on the sides of the ship. For our purposes, we will simply call them suspended scaffolds. The scaffold was suspended by manilla rope with blocks attached to the rope stirrups which attached to timbers known as “bearers”. This set-up is shown in Figure 7.

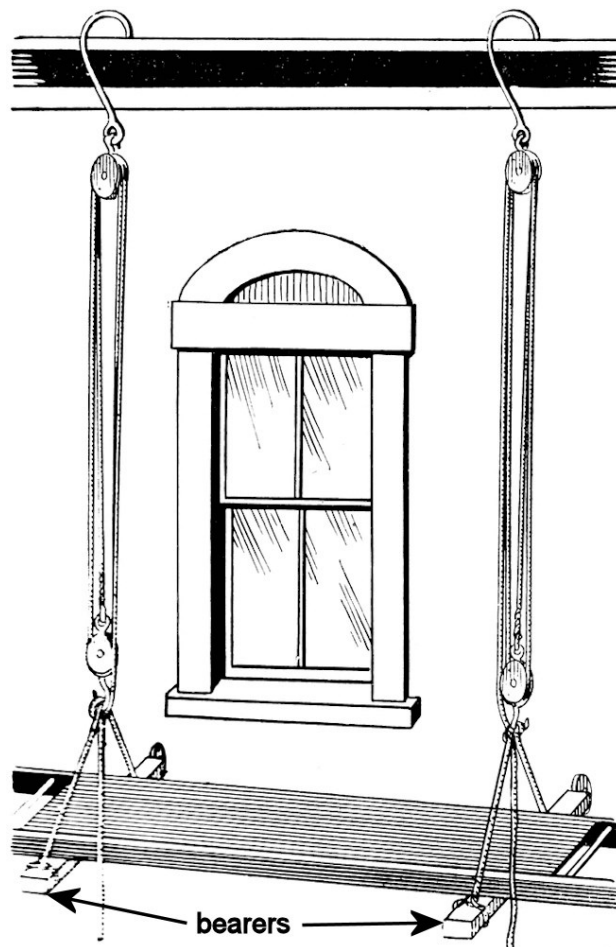


Figure 7

Set-up of swing stage scaffold

The bearers were of such a length that they held the scaffold away from the side of the work surface so that workers could be seated and there would room for their legs. Though not exactly the same design, Figure 8 shows some examples of multiple board scaffolds.



Figure 8

Multiple board scaffolds

It might be asked why they kept scaffolds of such elaborate construction aboard ship when we see simple single board scaffolds used by workers in the shipyards? The answer is probably because of the abundant timber which was available for use in the shipyard whenever it was needed. Aboard ship, they would need higher quality equipment in order for it to last longer. While the shipyard likely used simple pine boards as scaffolds, these “built” scaffolds were likely to be constructed of teak because they were stowed where they were exposed to the elements and would otherwise be prone to rot which would make their use dangerous.

Tank Room

We now turn our attention to the roof of *Titanic*'s tank room. In Figure 9 we see what appears, at first glance, to be a stack of simple boards. But is it?

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Figure 9

Wooden structure on roof of *Titanic's* tank room roof

If we again take measurements with respect to landmarks on the roof such as railings and stanchions, we find that the length is 19 ft. like our scaffolds on the forward weather cover. They apparently never stowed these scaffolds so that the bottom edge was resting on a deck or a roof. They were elevated slightly so that they wouldn't be sitting in pooled water and could therefore dry thoroughly. Taking this into account, the width of the "boards" we see would appear to be 17 inches. We can now see that what we are looking at is another scaffold identical to the others. We don't see the iron band because it is obscured by the stowage bracket. The ends are partially obscured by railing stanchions. If we draw a line across the top of the top board, we can see that the line does not touch the board at the end. This can be seen in Figure 10.



Figure 10

Scaffold chamfered corner

This would indicate a chamfer like the other scaffolds. The chamfer at the bottom can't be seen because it is below the level of the deck house trim. Given all these observations, it becomes clear that we are looking at a scaffold on the roof of the tank room rather than just a stack of individual boards.

To bolster the idea that this is a scaffold, we can look at Olympic evidence. In Figure 11 we see an Olympic photo taken in 1911.



Figure 11

1911 photo of scaffolds on *Olympic's* tank room

What we see is a rack which stowed scaffolds identical to the ones we have been considering. In fact, Figure 12 shows a more complete view of 1911 *Olympic's* tank room roof where we can see that there were actually four of these racks with scaffolds stowed on them.

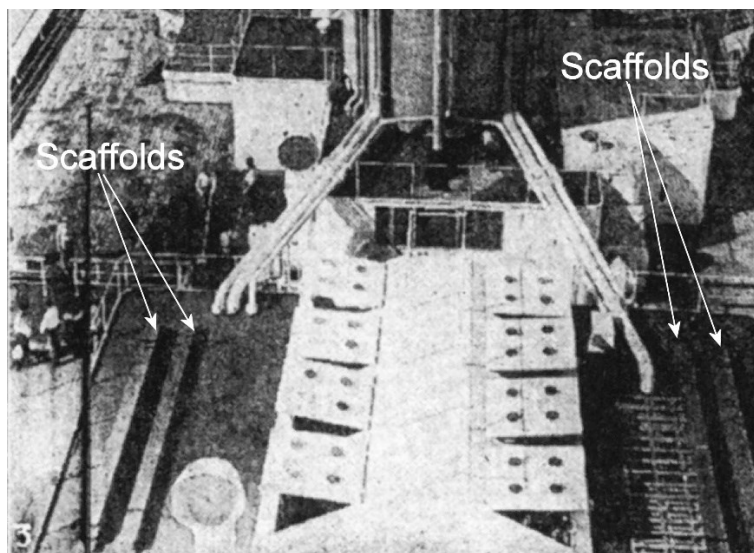


Figure 12

1911 photo of scaffolds on *Olympic's* tank room

This was possible on *Olympic* in 1911 because not nearly as much of the roof space was taken up by water mains. By 1912 *Titanic* and *Olympic* had changes made to the water mains which all but eliminated the possibility of stowage of scaffolds on the tank room roof. *Titanic* was able to stow one on the aft railing of the tank room. From Figure 9 which we viewed previously, there is no indication that more than one scaffold was stowed on *Titanic's* tank room roof.

Drawings

Now that the identity of the objects on the weather cover over *Titanic's* forward grand staircase dome and those on those on the roof of the tank room have been established as scaffolds, drawings will show how the scaffolds appeared as they were stowed in their various locations.

Figure 13 shows plan and elevation views of the scaffolds stowed on port and starboard sides of the weather cover over *Titanic's* forward grand staircase dome. Because of the 1912 evidence, three scaffolds are shown stowed on each side.

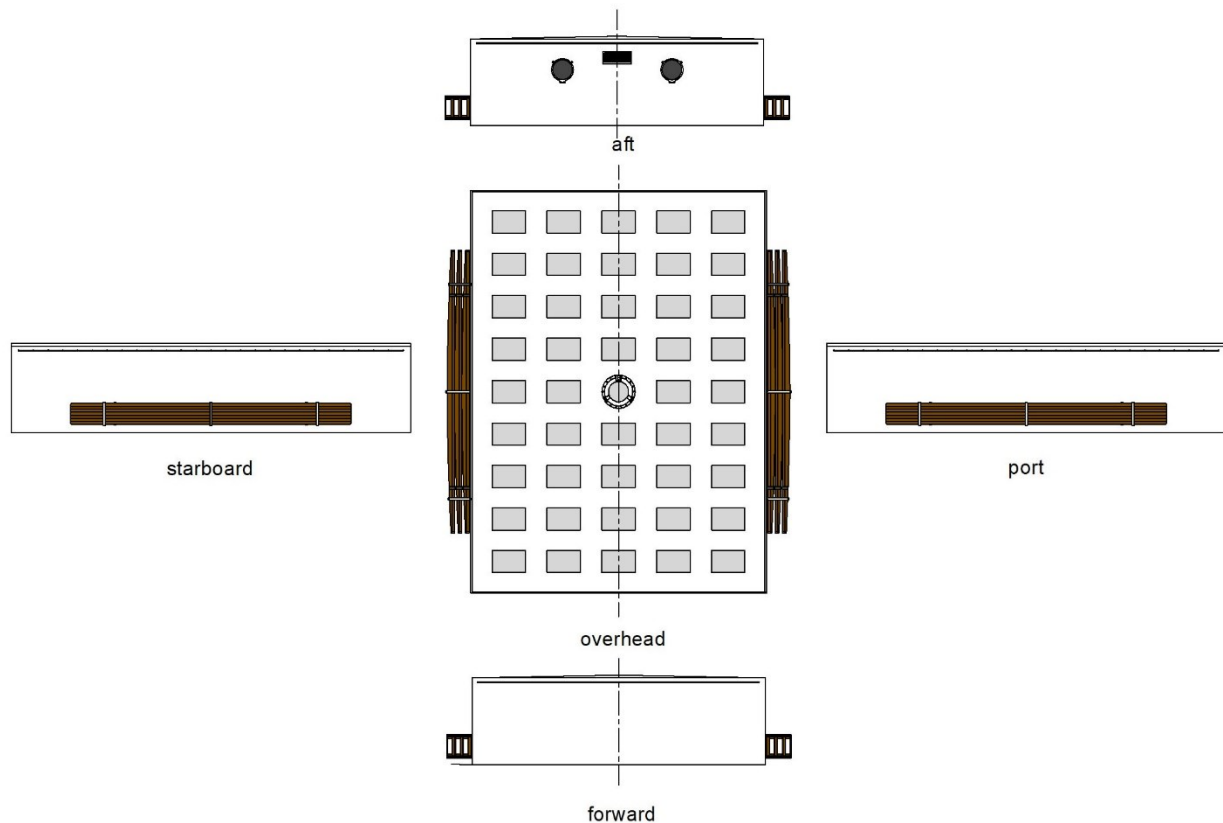


Figure 13

Elevation and plan views of stowed scaffolds on *Titanic's* forward weather cover

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Figure 14 shows an elevation view of a single scaffold stowed on the aft roof of *Titanic's* tank room. Only one scaffold is shown because no more than one can be identified in a Cork Examiner photo taken aboard *Titanic* in Queenstown as seen in Figure 9.

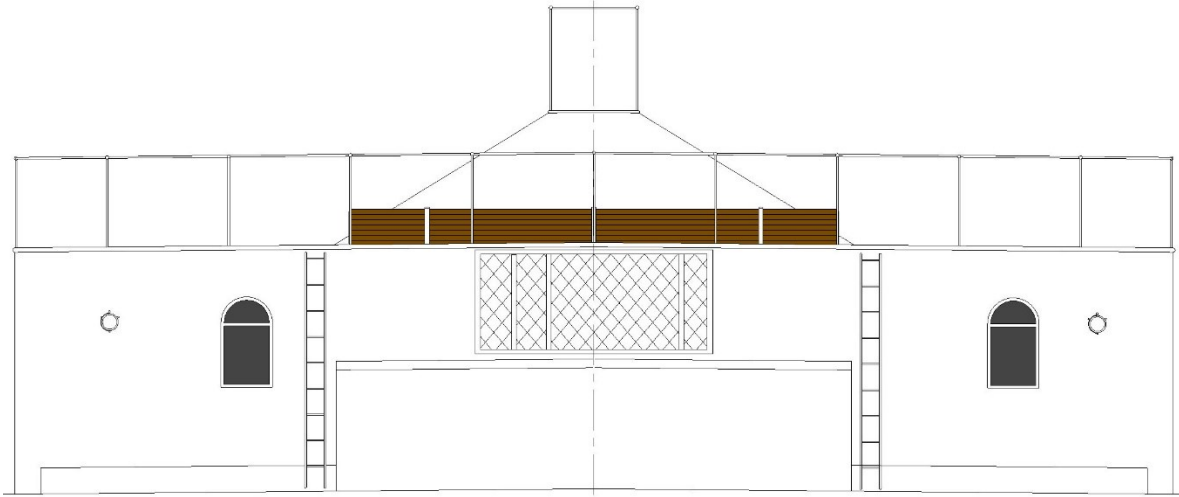


Figure 14

Elevation view showing single scaffold on roof of *Titanic's* tank room

Figure 15 shows a plan view of the roof of the tank room.

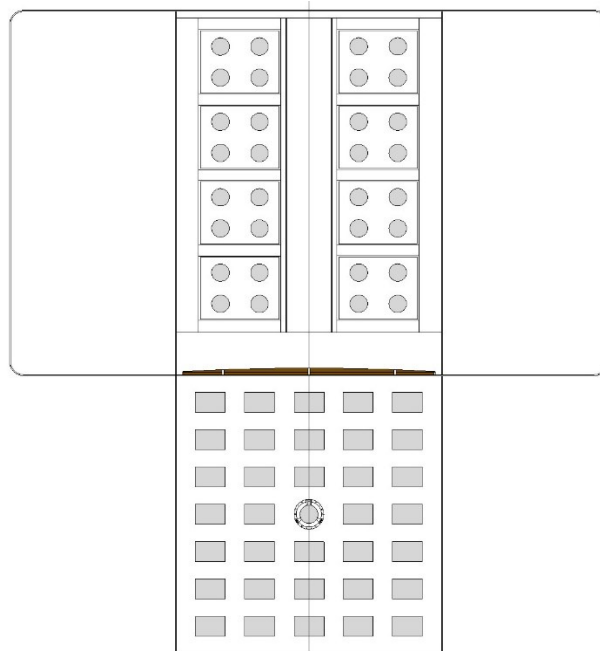


Figure 15

Plan view showing single scaffold stowed on roof of *Titanic's* tank room

Conclusion

This article has taken an in-depth look at the structures on the port and starboard sides of the weather cover over *Titanic's* forward grand staircase dome. In light of this more intensive examination, the previous conception of the identity of these objects has been modified in favor of their identification as scaffolds. I have no doubt about the identification of the scaffolds. The only doubt is about how many of these scaffolds were placed on either side of the weather cover. Given the evidence from the 1912 *Olympic* photo, I believe that the evidence favors the *Olympic* configuration in 1912.