

# The Controversy Over the Paint Remnants on *Titanic's* Recovered Officers' Quarters Window

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## Introduction

To establish the frame of reference for those who are not familiar with this debate, let's first show *Titanic's* recovered officers' quarters window in Figures 1 & 2.



Figure 1

*Titanic's* recovered officers' quarters window



Figure 2

### Close-up of adhering paint on *Titanic's* officers' quarters window

There is no paint left on the window except for a rust-colored paint remnant. This is the remnant of paint which we will consider. I believe these remnants are the same color as "dark mast" which was discussed in this article: ["Dark Mast" Article](#).

There are two aspects of the controversy surrounding the paint remnants. One position is that the remnants are red oxide paint primer. The other position is that the remnants are "stopping compound" used to smooth over either bolt or rivet heads. Both aspects will be addressed in this article.

### The Case for the Paint Remnant Being Red Oxide

For reference purposes, Figure 3 represents the most common shade of red oxide paint.

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Figure 3

### The most common shade of red oxide paint

Curiously, the case for the paint remnants being red oxide is built almost exclusively on color. But rather than show that the paint remnants are the same color as most examples of red oxide, several examples of relatively uncommon shades of red oxide are offered instead.

I am struck by the coincidence that the examples given for the more uncommon shades of red oxide have such a similarity to the generally accepted color of “dark mast” paint. One would think that if these remnants were obviously red oxide that they would be more like the more common color of red oxide which couldn’t be mistaken for “dark mast” paint. The prime example for the alternate color of red oxide given is the paint which still adheres to the officers’ quarters window.

### The Case for the Paint Remnants on the Officers Quarters’ Window Being “Dark Mast”

The first argument against these paint remnants being red oxide is that red oxide is a primer used on ferrous metals like iron or steel to prevent the formation of rust. The officers’ quarters windows are ***not*** ferrous metal. They are cast brass. There is no need for a rust preventative like red oxide over cast brass because brass can’t rust.

It is also claimed that a primer like red oxide was needed to provide a better surface to which the color coats of paint would adhere. The problem with that argument is that if one examines the paint remnants on the window, there are ***no*** remnants of another paint color adhering to the surface of the paint remnants. It could be possible that there was a primer coat of some type used under the paint remnants but there is no evidence for one.

What is the origin of the theory that the color coat of the officers' quarters windows was dark brown? For many years it was assumed that the officers' quarters windows were painted a dark brown color. The reasons seem to be twofold. First there were many windows withing the public spaces on *Titanic* which had dark wood window frames. The second reason has to do with photography. There were no color photos taken of the officers' quarters window frames. Only two known autochrome color photos were taken of the Olympic class ships and neither of them show these window frames.

So, historians have been left with only black and white photos to analyze. In examining these photos, the window frames appear very dark in shade. Understandably this would lead someone to believe that these windows were painted with a very dark shade of paint. The problem with that observation is that it does not take into account the nature of black and white film in the era of *Titanic*.

The black and white photos taken of *Titanic* were taken with orthochromatic black and white film. Some of the characteristics of this type of black and white film are that it makes reds, yellows, and oranges appear very dark and it makes blues look very light. Modern panchromatic black and white film does not have these drawbacks. Figure 4 shows a digital image of *Titanic's* officers' quarters with the window frames painted with the "dark mast" color.

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copyright Vasilije Ristic

**color image**



**orthochromatic black & white image**



**panchromatic black and white image**

Figure 4

### Comparison of different types of photographic film

This digital image was made by digital artist Vasilije Ristic. The first black and white image below the color image is a representation of how an orthochromatic black and white film image would appear. The bottom image is a representation of how modern panchromatic black and white film would appear.

I believe that the misjudgment that the color "dark mast" could not appear as dark as it does in orthochromatic black and white photos has led some to believe that the paint remnants on

*Titanic's* recovered officers' quarters window couldn't be the final color coat of paint. Therefore, they had to have an explanation for the color of the paint remnants. All they could do is declare that it was actually red oxide primer then look for examples of shades of red oxide which they believed were close to the shade of the paint remnant on the window. This analysis did not start with which color the remnants matched but rather that the remnants didn't match the darker color in black and white photos. Therefore, they had to define the paint remnants as being red oxide then find uncommon shades of it as proof.

### The Fallacies of the "Red Oxide Position"

- 1. *The paint remnants on the recovered Titanic officers' quarters window were too light in shade to be the final color coat for the windows.***
- 2. *Red oxide was necessary as a primer coat on the windows.***

Several questions which arise are:

1. Why do you need a red oxide rust preventative primer on a metal that cannot rust?
2. If the shade of red oxide used by Harland and Wolff was for all intents and purposes the same as the color "dark mast" then why would a color coat be necessary for those areas which are painted "dark mast", such as masts, daddoes, etc.?
3. If the paint remnants were a primer to provide a surface for better adhesion of a color coat, why are there no remnants of a color coat on the paint remnants which are proposed to be a red oxide primer?

### The Case Against the "Stopping Compound" Theory

The next theory which is employed to explain the paint remnant on the recovered officers' quarters window is the "stopping compound" theory. Stopping compound was a putty-like material that was mixed with red oxide then applied over butt joint deckhouse plating seams and flush rivets on the deckhouses. This theory holds that this compound was used to smooth over either bolts or rivets used to attach the officers' quarters windows to the deckhouse bulkheads. A problem similar to the red oxide theory is that we find no color coat paint remnants adhering to the theorized stopping compound. As with red oxide, since the officers' quarters windows were brass and did not rust, there was no need for a red oxide component in the stopping compound. Figure 5 shows stopping compound used on Olympic's officers' quarters deckhouse.



Figure 5

### Stopping compound used over rivets and seams on *Olympic*

Stopping compound was used over flush riveted iron rivets to create a smoother surface for painting. When iron rivets were flush riveted, the hot rivet was set with hammers then cut off with a chisel and hammer. Then what was left was further hammered flat. This procedure can be seen in this video where *Olympic's* deck plates are being flush riveted. The link is: <https://www.youtube.com/watch?v=qLY-ZESyXkA> The riveting procedure is shown at time mark 5:21.

The difference with the officers' quarters windows is that since they were cast brass, I believe they were fastened with brass rivets that were riveted **cold** with hammers due to the soft nature of brass rivets.

Figure 6 shows the procedure which would be used to flush rivet brass rivets through the brass windows and the steel bulkhead plating.

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## Procedure to flush rivet officers' quarters window frames

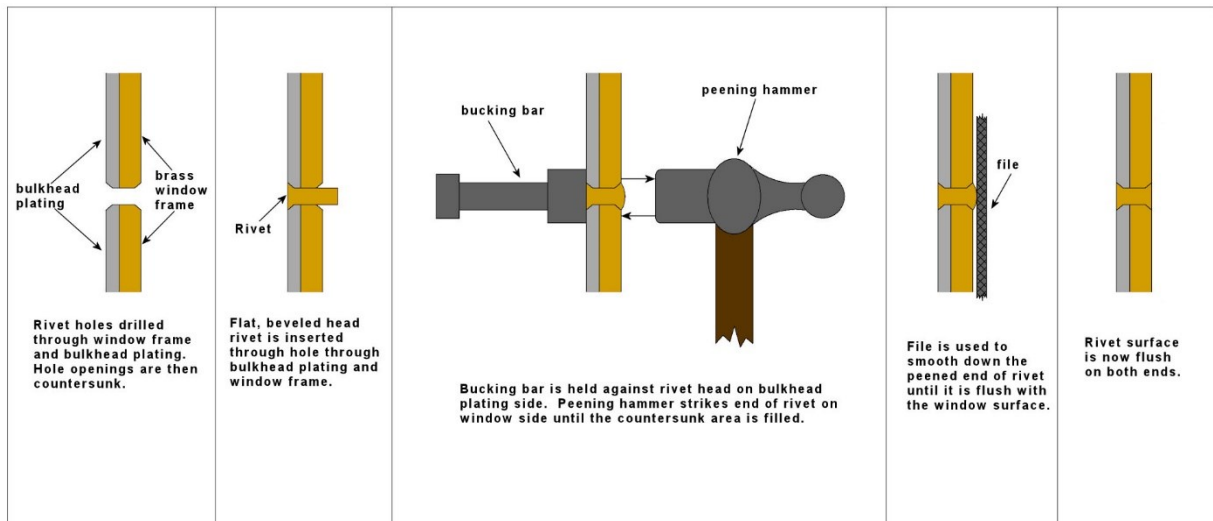


Figure 6

## Procedure to flush rivet officers' quarters window frames

Unlike iron riveting, the use of brass rivets with brass window frames allowed for a greater degree of finishing which was not possible at the time with iron rivets. Figure 7 shows how finely brass rivets can be finished using peening, filing, and abrasive stone finishing albeit at a somewhat smaller scale than on the window frames.

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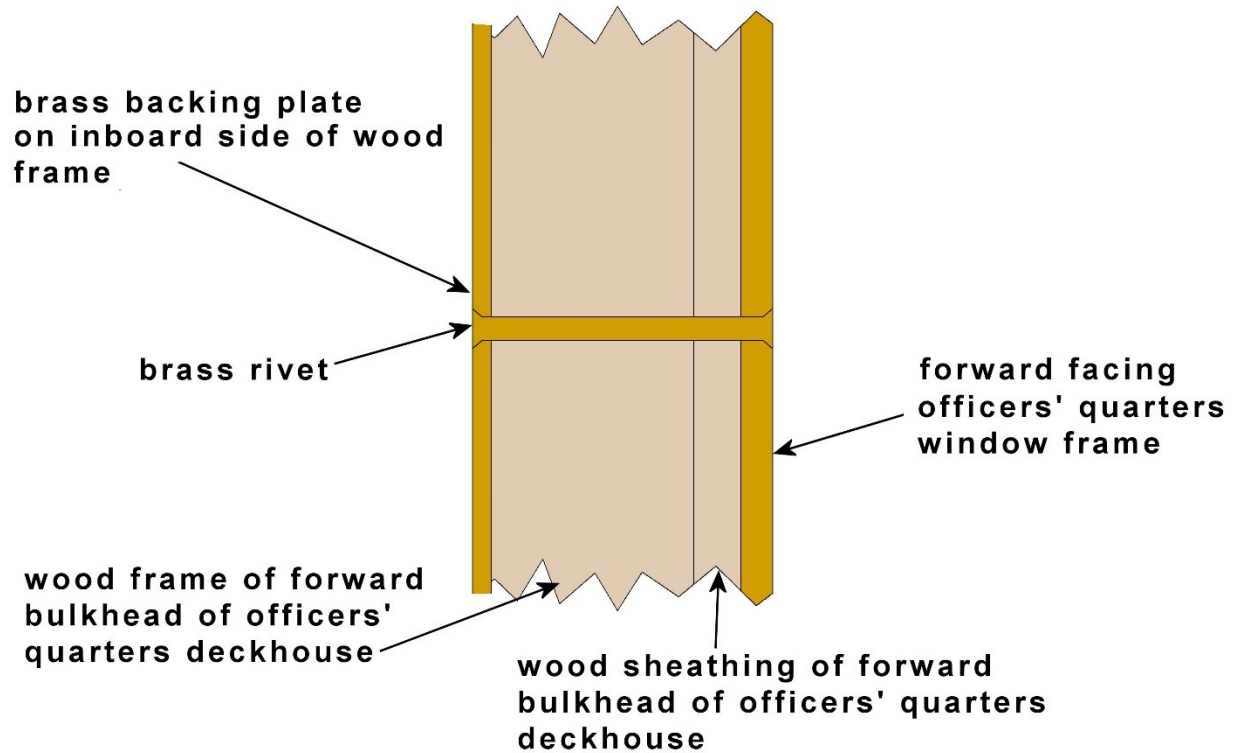


Figure 7

### Finishing brass rivets

One objection which has been raised about brass riveting has to do with the forward-facing officers' quarters window on *Titanic*. This bulkhead on *Titanic* was wood rather than steel. The objection is that brass rivets couldn't have been used with a wood framed and sheathed bulkhead. On the contrary, this would have presented no obstacle to the use of cold brass rivets.

Figure 8 show how brass rivets could be used with a wood framed and sheathed bulkhead.



## Conclusion

The purpose of this article has been to counter the contention that paint remnants on *Titanic's* officers' quarters window are either red oxide or stopping compound. These theories do not correspond with available evidence. Therefore, with this article and the previously linked article, I believe that the case has been made that the paint remnants are indeed the paint color coat "dark mast".

