



Memorandum

To: William Lee, Gowanus Environmental Remediation Trust
From: Kathryn Whalen, Ph.D., RPA- Principal Investigator
Date: July 11, 2025

RE: Memo #11- Identification of dredge bucket

Grab Bucket found May 27, 2024

On May 27, 2025, Cashman removed an obstruction from Turning Basin 6. Photographs of the grab bucket were provided by Chris Sheedy of Cashman and Ben Romagnoli of GZA. Photographs and identification research was conducted by Senior Archaeologist Dr. Kathryn Whalen of Chronicle Heritage.

DESCRIPTION

The bucket is a small clamshell-style grab bucket with two metal bowls with teeth. Bolts can be seen around the edges of the bowls. Because of the advanced amount of oxidation, welds could not be identified by photograph. In the center of the bucket, a two-pulley assemblage can be seen which is used for manipulating the bowls. The assemblage is arranged in a scissor configuration with the arms attached to the bowls. The pullies and bucket are made entirely of ferrous metal. No chains were recovered with the bucket, suggesting that the pullies were operated with rope. No parts of the bucket seem to be made from wood. In addition, Cashman operatives confirmed that there are no hydraulic apparatus on the bucket. It is relatively small in capacity.



Photograph 1. Initial condition of the bucket from Turning Basin 6 (Chris Sheedy, May 27, 2025).



Photograph 2. Side view of the bucket after some cleaning (Ben Romagnoli, July 1, 2025).



Photograph 3. Side and posterior view of the bucket after a thorough cleaning (Ben Romagnoli, July 1, 2025).



Photograph 4. Side and posterior view of bucket after thorough cleaning. Note the pulleys are entirely metal (Ben Romagnoli, July 1, 2025).



Photograph 5. Wide view of the bucket to show scale (Ben Romagnoli, July 1, 2025).

RESULTS

The configuration of the pulleys and bucket arms suggests that the recovered bucket is similar to the G.H. Williams Co. "scissor style" grab bucket seen below (Figure 1). It also shows similarities to different buckets: one patented by G.H. Williams in 1905 (Figure 2) and one patented by S.E. Atherton in 1924 (Figure 3). A cursory internet search conducted in July 2025 suggested that many of these styles of buckets are still in use or produced today by various manufacturers.

Grab buckets such as the one recovered by Cashman can have multiple uses including dredging, but also moving loose material like sand and pebbles, refuse like scrap metal, or for maintenance around industrial complexes. This grab bucket seems relatively small and versatile. The discovery location, on Turning Basin 6, is the former location of the Brooklyn Builders Supply Co., Brooklyn Union Gas Co., and currently the location of several warehouses and industrial buildings.

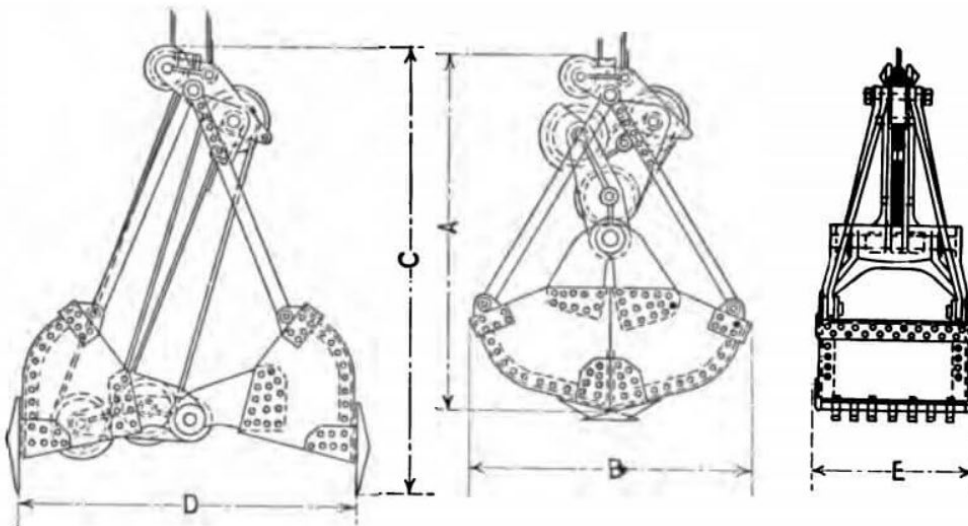


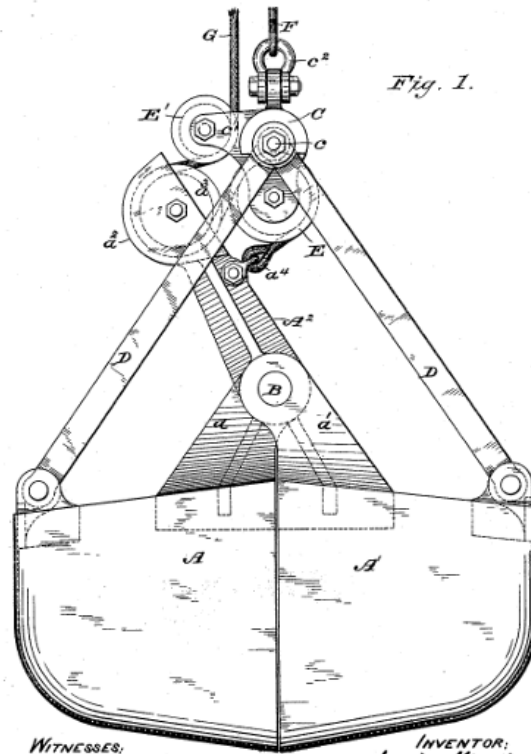
Figure 1. Schematic drawing of a Williams scissor style bucket
(<https://www.911metallurgist.com/blog/grapple-dredges/>, accessed July 11, 2025).

No. 794,380.

PATENTED JULY 11, 1905.

G. H. WILLIAMS.
CLAM SHELL BUCKET.
APPLICATION FILED MAY 19, 1904.

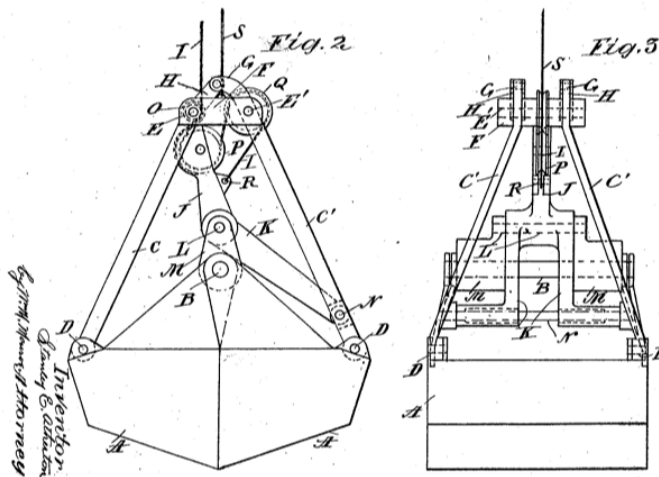
3 SHEETS-SHEET 1.



WITNESSES:
S. Davis
H. M. Saywell

INVENTOR:
Gurdon H. Williams
by his attorney *J. D. Fox.*

Figure 2. Schematic drawing of a Williams scissor-style bucket, patented 1905 (<https://patents.google.com/patent/US794330A/en?inventor=Gurdon+H.+Williams&sort=old&page=1>, accessed July 11, 2025).



Feb. 12, 1924.
 S. E. ATHERTON
 GRAB BUCKET
 Filed June 3, 1922
 2 Sheets-Sheet 2
 1,483,707

Figure 3. Schematic drawing of an Atherton bucket, patented 1924
 ([https://patents.google.com/patent/US1483707A/en?q=\(~patent%2fUS1864793A\)&sort=old&page=73](https://patents.google.com/patent/US1483707A/en?q=(~patent%2fUS1864793A)&sort=old&page=73), accessed July 11, 2025).

RECOMMENDATIONS

Chronicle Heritage examined a heavily rusted grab bucket that was found in dredged materials within Gowanus Canal in the area in Turning Basin 6. The bucket is oxidized, obscuring some distinguishing features. Subsequent research indicates the grab bucket could be of temporal origin within the period of significance for the Canal, but that its production could also be more recent than that. Further, its use could be for a wide range of activities in and around the Canal, including but not limited to maintenance, industrial yards, construction, and dredging. Due to the indefinite nature of its productions, association with a specific property, and use, Chronicle Heritage does not recommend retaining the bucket.