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U. S. NAVAL TECHNICAL MISSION TO JAPAN  
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SAN FRANCISCO, CALIFORNIA

TMJ  
SRT  
S-97(N)

January 1946

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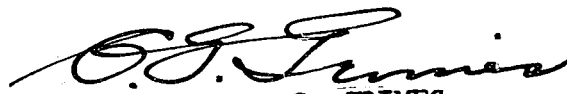
From: Chief, Naval Technical Mission to Japan.  
To : Chief of Naval Operations.

Subject: Target Report - Japanese Anchor and Anchor Chain.

Reference: (a)"Intelligence Targets Japan" (DNI) of 4 Sept. 1945.

1. Subject report, dealing with Target S-97(N) of Fascicle S-1 of reference (a), is submitted herewith.

2. The investigation of the target and the target report were accomplished by Comdr. V.R. Hayes, USN.

  
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30685

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S-97(N)

# JAPANESE ANCHORS AND ANCHOR CHAIN

"INTELLIGENCE TARGETS JAPAN" (DNI) OF 4 SEPT. 1945

FASCICLE S-1, TARGET S-97(N)

JANUARY 1946

U.S. NAVAL TECHNICAL MISSION TO JAPAN

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S-97(N)

# SUMMARY

## SHIP AND RELATED TARGETS JAPANESE ANCHORS AND ANCHOR CHAIN

Investigation of this target shows that the Japanese have made no significant advancement in design or construction of anchors or anchor chain.

NTJ-L-S-97(N)

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## REFERENCES

**Japanese Personnel who Assisted in Gathering Material:**

- Admiral KATAYAMA, Head of Fourth Section, Navy Technical Department.
- Mr. IKURA, Technician, Fourth Section, Navy Technical Department.
- Comdr. T. NAKAMURA, formerly attached to Yokosuka Navy Yard.
- Mr. M. IKUTA, Civilian Engineer, formerly at Yokosuka Navy Yard.

## LIST OF ENCLOSURES

- (A) Sketch of Standard Stockless Anchor
- (B) Partial Table of Standard Dimensions of Stockless Anchor

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# THE REPORT

## Anchor Chain

Two shots of cast steel anchor chain for ATAGO class heavy cruiser were shipped to the Boston Navy Yard, marked with NavTechJap Equipment Numbers JE 50-1492.1 and JE 50-1492.2.

## Anchors

The Japanese Navy had standardized two types of anchors for shipboard use. Figure 1 is a photograph of the old-fashioned type; Figures 2, 3 and 4 are photographs of the stockless type. Figure 5 is a photograph of a special double-fluked anchor used for mooring buoys. Enclosures (A) and (B) are from the standards for stockless anchors. These anchors ranged in size from 0.1 to 15 tons.

In the stowage with the anchor shown in Figure 4, there were practically identical anchors which were made in England and were marked "HALLS PATENT".

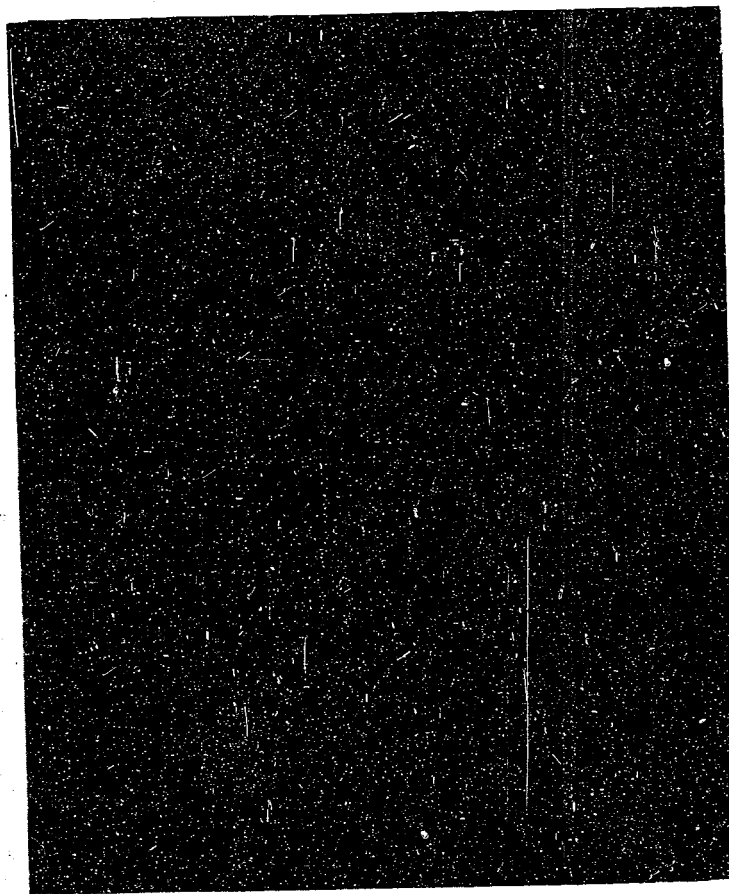
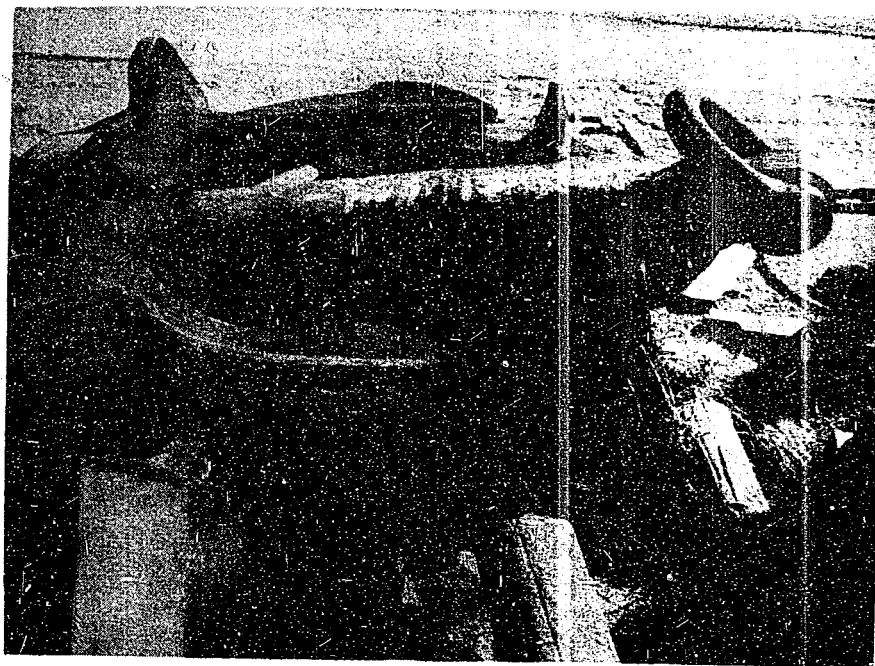


Figure 1. Old Fashioned Anchors



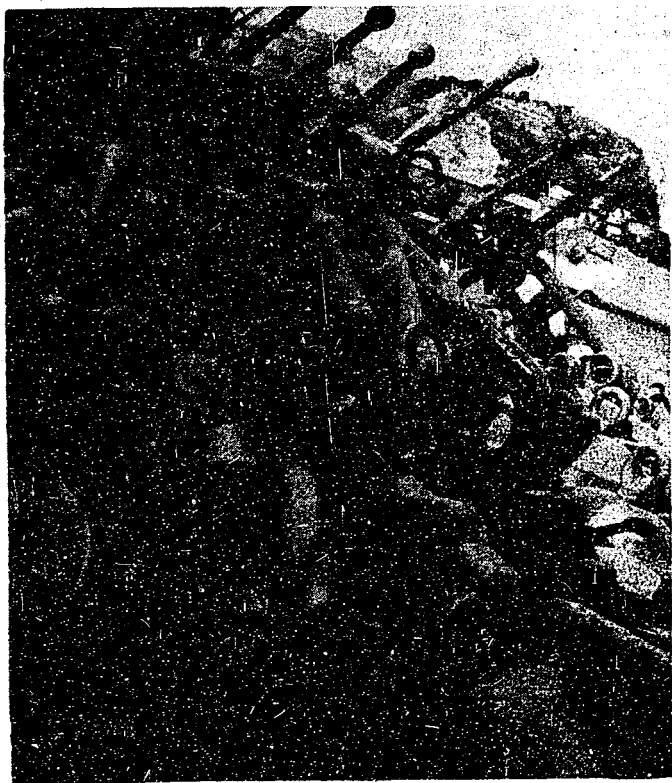
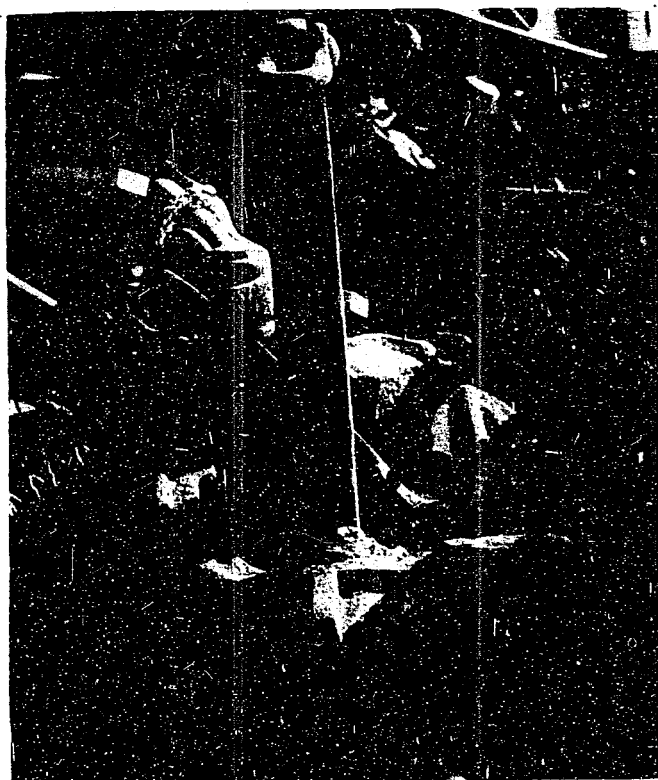
*Figure 2.*  
*Standard Stockless Anchors*



*Figure 3. Standard Stockless Anchors*



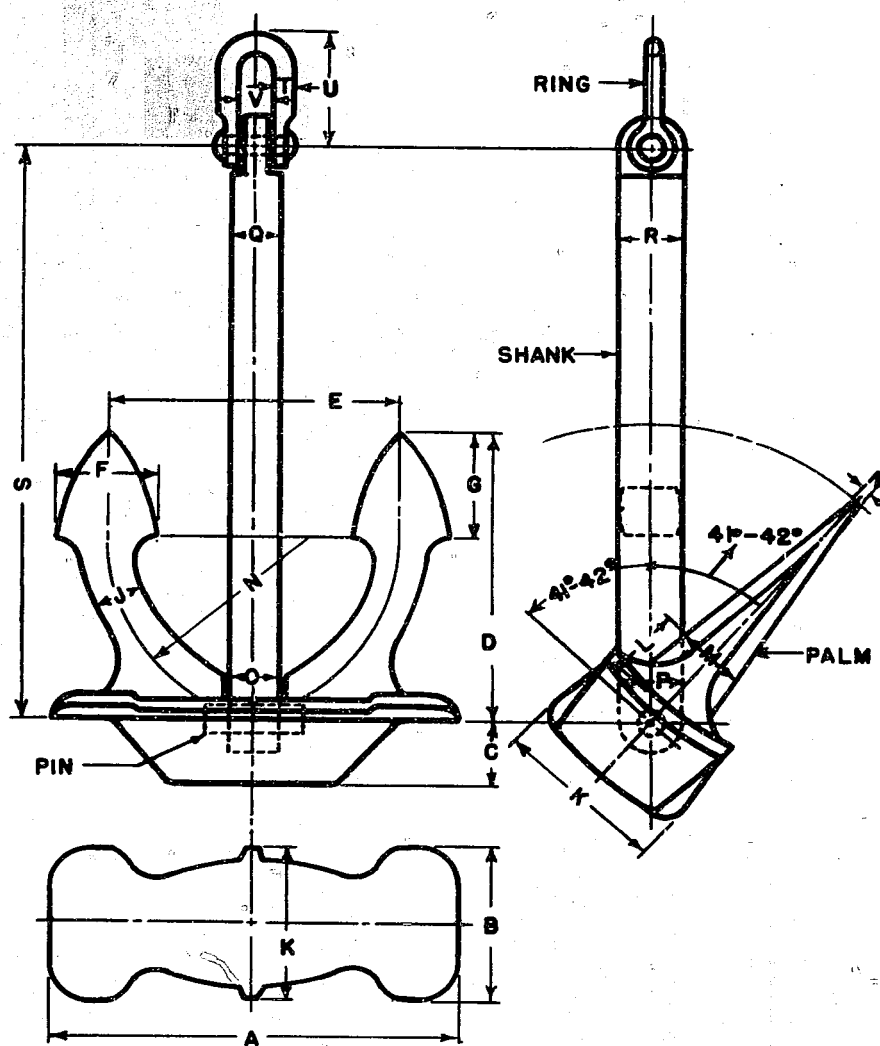
*Figure 4*  
*Standard Stockless Anchors*



*Figure 5*  
*Double Fluked Buoy Anchor*

## ENCLOSURE (A)

## STOCKLESS ANCHOR



## ENCLOSURE (B)

PARTIAL TABLE OF STANDARD DIMENSIONS OF STOCKLESS ANCHORS

	Designation (Encl. A)	Formula	Dimensions (mm)		Remarks
			For anchor of 5.5 tons *	For anchor of 15.0 tons **	
Palm	A	$1150\sqrt{W}$	2030	2834	Dimensions A to V, inclusive, correspond to those indicated on Enclosure (A), except H and I, which were omitted from the original.  Dimensions B to V, inclusive, are functions of A, which is taken as $1150\sqrt{W}$ where W is weight of anchor in tons.
	B	$0.386xA$	790	1090	
	C	$0.170xA$	345	480	
	D	$0.738xA$	1500	2920	
	E	$0.706xA$	1430	2000	
	F	$0.230xA$	468	652	
	G	$0.262xA$	530	750	
	H	$0.501xA$	1020	1420	
	I	$0.151xA$	308	428	
	K	$0.411xA$	840	1170	
	L	$0.188xA$	380	530	
	M	$0.134xA$	272	380	
	N	$0.028xA$	56	80	
	Shank	O	$0.128xA$	260	
P		$0.151xA$	306	428	
Q		$0.121xA$	246	344	
R		$0.145xA$	294	410	
S		$1.5 \times A$	3050	4250	
Ring	T		122	170	
	U	$0.288xA$	585	820	
	V	$0.070xA$	142	198	

\* Test Load - 72.0  
 \*\* Test Load - 11.80(?)

Editor's note. Organization of table in manuscript provided for column of anchor weights at half-ton intervals from 5.5 to 15.0 inclusive, with no further information. Such a column has been omitted from this table for sake of space conservation.