

CHANGE NOTICES ARE NOT  
CUMULATIVE AND SHALL BE  
RETAINED UNTIL SUCH TIME  
AS THE ENTIRE STANDARD IS  
REVISED.

Fed. Std. No. 162a  
May 9, 1967  
Change Notice 1  
January 4, 1968  
-----

FEDERAL STANDARD  
BOSE, RUBBER,  
VISUAL INSPECTION GUIDE FOR

The following changes in Fed. Std. No. 162a, dated May 9, 1967, have been approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. Corrected table and figures. The following corrections are a part of this standard:

CONTENTS		
Number	Title	Pages
Table I	Clarification of defects -----	9, 10
Figure:		
30	Depression, small and light: class A—major; classes B and C—minor -----	51
31	Depression, small and light: class A—major; classes B and C—minor -----	52
32	Depression, small and light: class A—major; classes B and C—minor -----	53
33	Depression, small and light—minor -----	54
42	Lap: foldover, opening—major -----	63
43	Lap: foldover, opening—major -----	64
48	Charge mark: I—major. II—minor. III—Not a defect -----	69
49	Charge mark: class A—minor; classes B and C—not a defect --	70
62	Light cover (roughness), thickness not below specified or not specified—minor -----	83
63	Light cover (roughness), thickness not below specified or not specified—minor -----	84
72	Patched cover, open edge—major -----	93
73	Patched cover: I—Incorrect thickness, high or low—major. II—Correct thickness and securely cured—not a defect ---	94
76	Porosity, small localized area, reinforcement not exposed minor -----	97
77	Pricker marks through to reinforcement—major (see note in table I for other classification) -----	98
90	Wrinkles, wrapper, medium—major -----	111
91	Wrinkles, wrapper, small—minor -----	112
110	Gasket, tail or binder washer for expansion ring coupling: I—Not properly placed—major. II—Correct placement -----	131
111	Insertion distance wrong—major -----	132
112	Ring, expansion, improperly placed: I—Correct. II—Ring in waterway—major. III—Too much gap—major -----	133
113	Cement in tube—minor -----	134
116	Clamp mark—major -----	137

RETAIN THIS COVER PAGE AND INSERT BEFORE THE TABLE OF CONTENTS OF THIS STANDARD

Fed. Std. No. 162a  
Change Notice 1

Number	Title	Pages
Figure:		
117	Clamp mark—major -----	138
130	Ball—up: I—Yarn ball up—major.	
	II—Normal hose -----	151
131	Ball-up—major -----	152
138	Friction between braids, where specified, missing: I—Friction missing—major.	
	II—Normal hose -----	159
139	Knot in yarn: I—Knot in yarn—major.	
	II—Normal hose -----	160
152	Wire through cover—major -----	173
153	Wire through tube—major -----	174
166	Wire, static, bulge: with loose cover—major; dynamic use (Air Force procurement only)—major; with adhered cover—not a defect -----	187
167	Yarn through cover—major -----	188
174	Hole—major -----	195
175	Hole—major -----	196
186	Tube missing: I—Normal hose.	
	II—Major -----	207
187	Off-center tube: I—Thickness meets tolerance—not a defect.	
	II—Thickness below tolerance—major -----	203
192	Porosity, more than 15 percent of tube thickness— major -----	213
193	Ring: class A—major; classes B and C—not a defect ----	214
200	Surface irregularity: when assembled with swaged fittings—major; all others—minor -----	221
201	Surface irregularity: when assembled with swaged fittings—major; all others—minor -----	222
202	Surface irregularity: when assembled with swaged fittings—major; all others—minor -----	223
203	Wire through tube—major -----	224

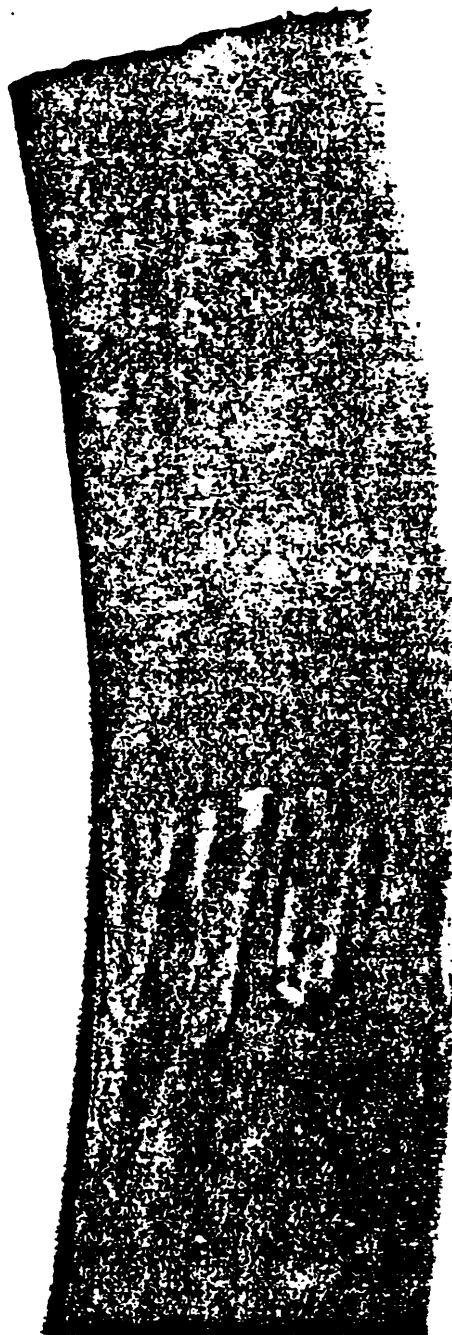
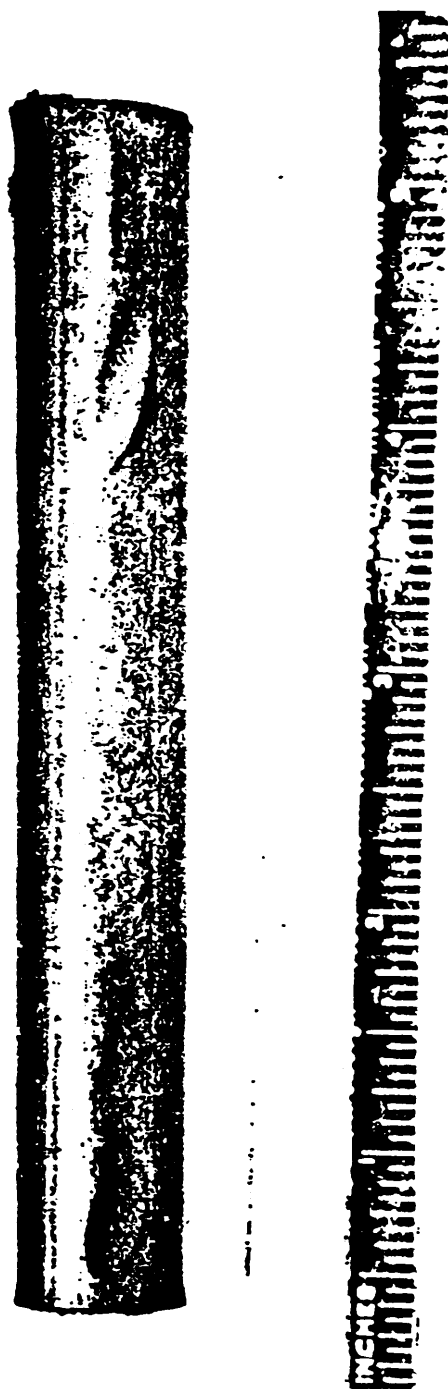


FIGURE 30. Depression, small ad light: class A—major; classes B and C—minor.  
(Corrected January 4, 1968)

Fed. Std. No. 162a



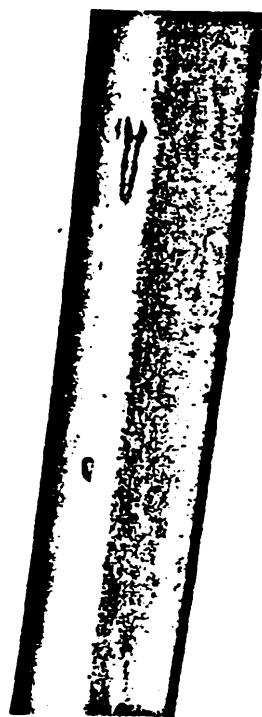


FIGURE 32. Depression. small and light: class A—major: classes B and C—minor.  
(Corrected January 4, 1968)

Fed. Std. No. 162a

DELETED

FIGURE 33. Depression, small and light—minor  
(Corrected January 4, 1968)

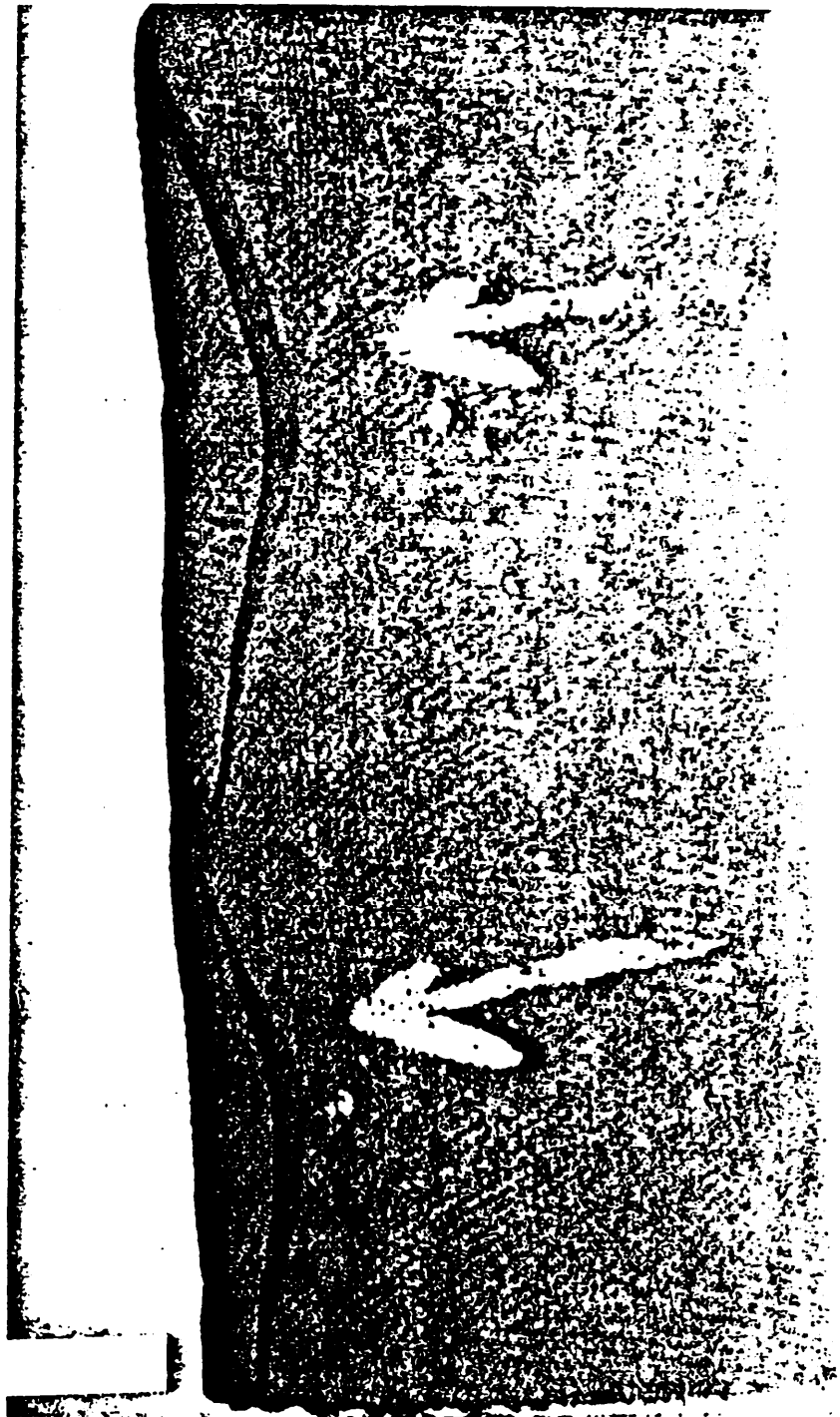


FIGURE 42. Lap: foldover, opening—major,  
(Corrected January 4, 1968)

Fed. Std. No. 162a

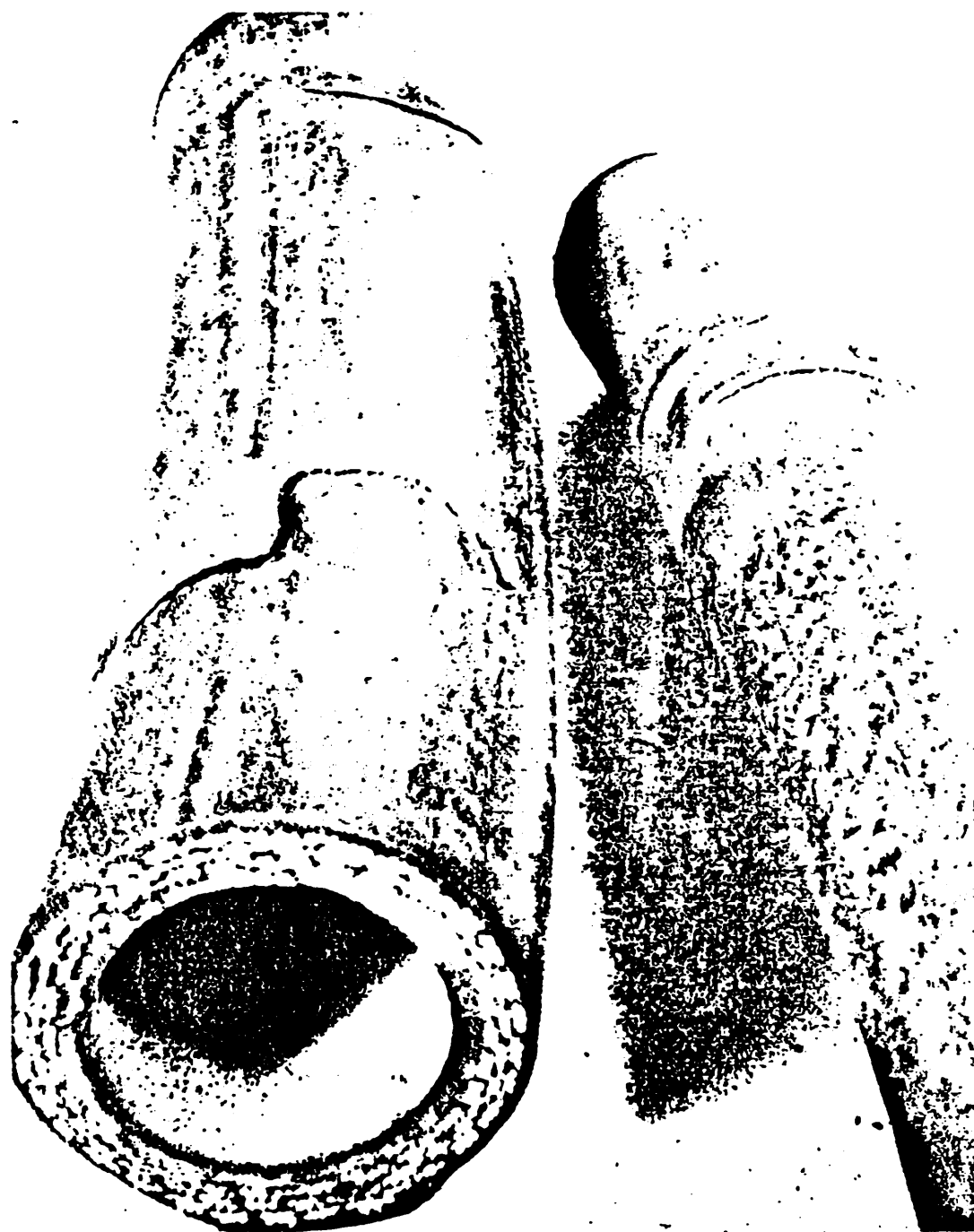


FIGURE 43. Lap: folkover, opening—major.  
(Corrected January 4, 1968)



II

I

III

FIGURE 48. Charge mark:

- I—major.
- II—minor.
- III—Not a defect.

(Corrected January 4, 1968)

Fed. Std. No. 162a

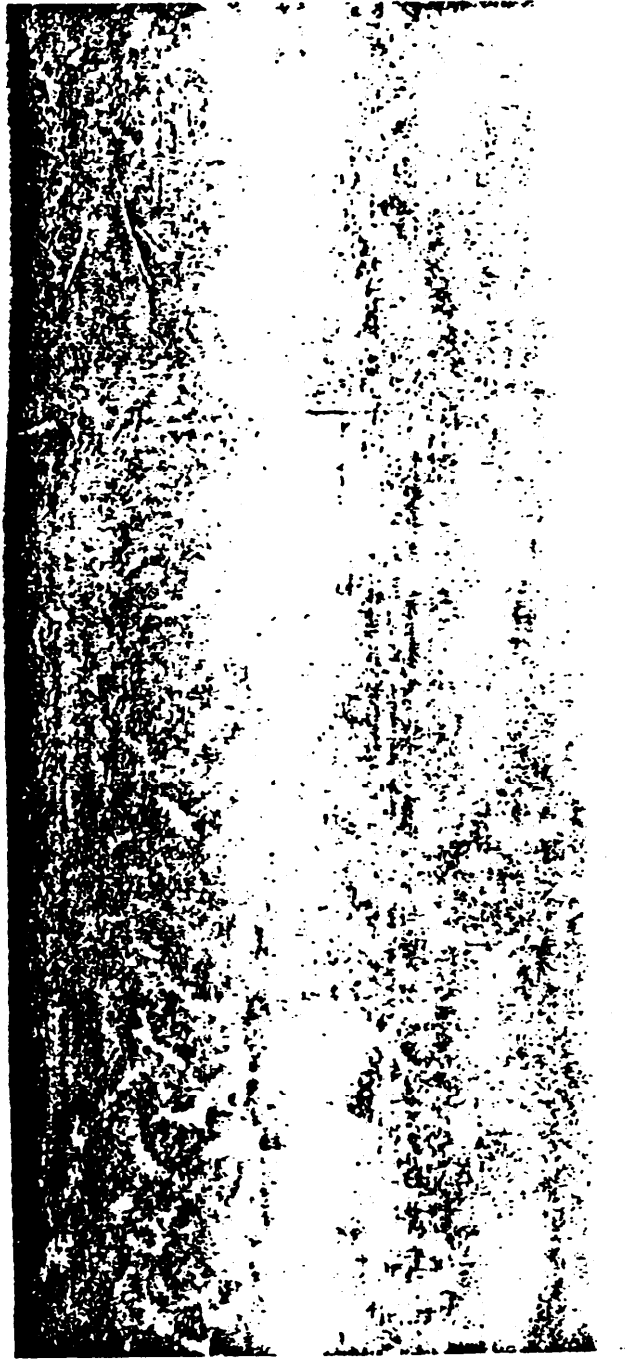


FIGURE 49. Charge mark: class A—minor; classes B and C—not a defect.  
(Corrected January 4, 1968)

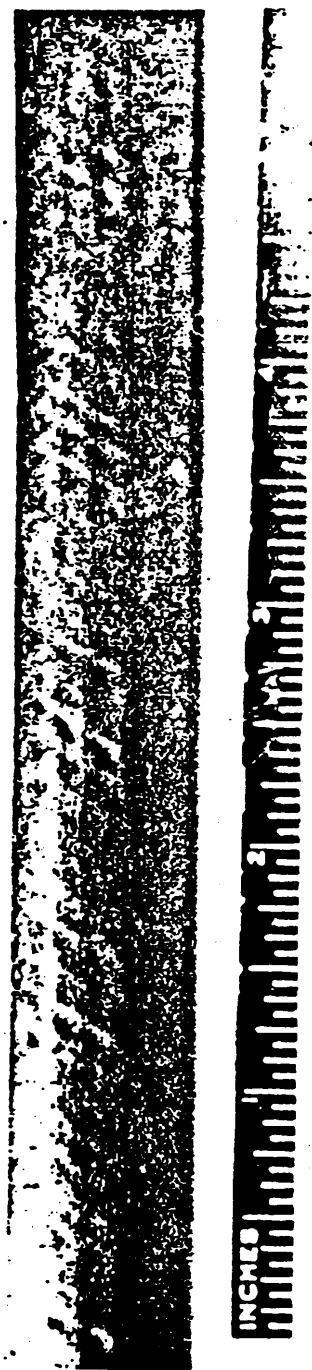


FIGURE 62. Light cover (roughness), thickness not below specified or not specified  
—minor.

(Corrected January 4, 1968)

Fed. Std. No. 162a

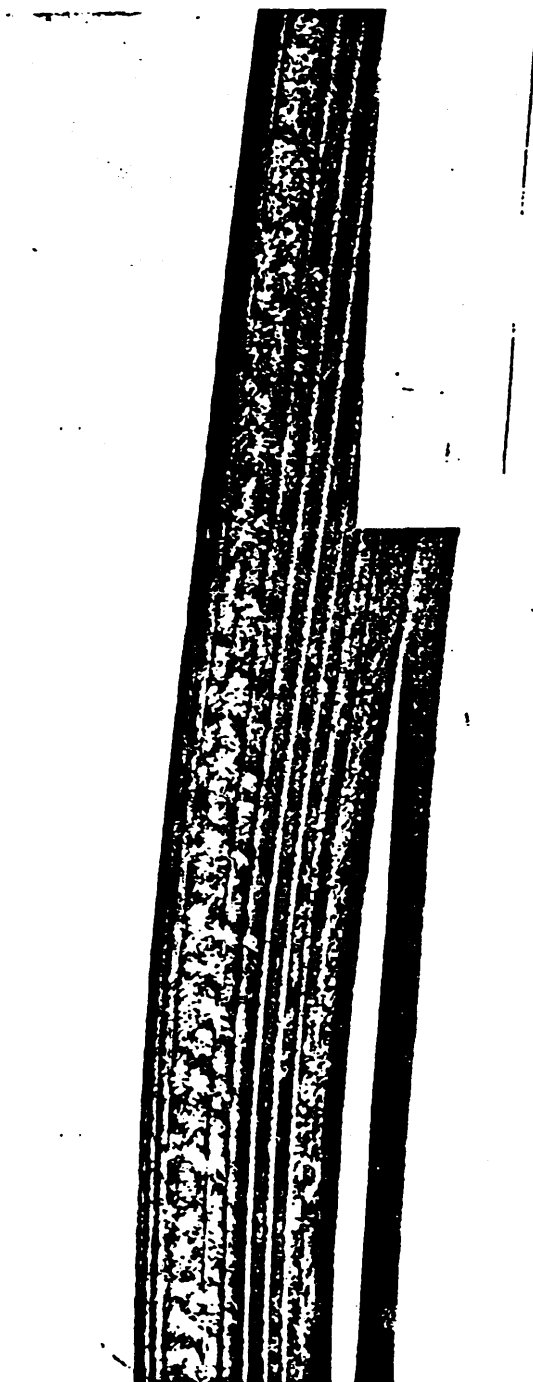


FIGURE 63. Light cover (roughness), thickness not below specified or not specified  
—minor.  
(Corrected January 4, 1968)

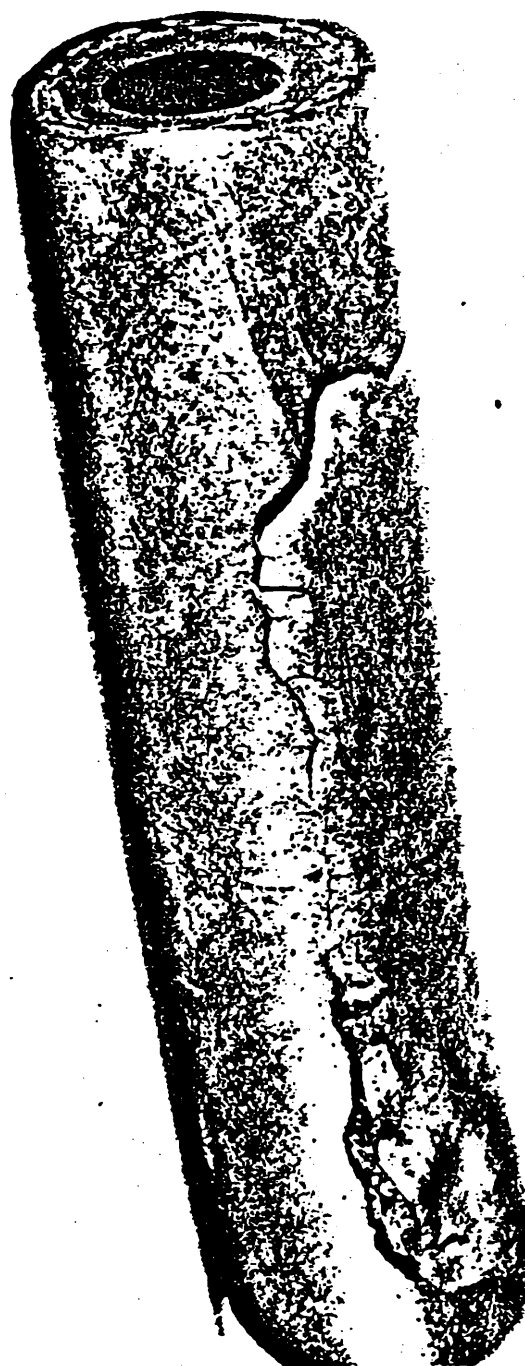


FIGURE 72. Patched cover, open edge—major.  
(Corrected January 4, 1968)

Fed. Std. No. 162a

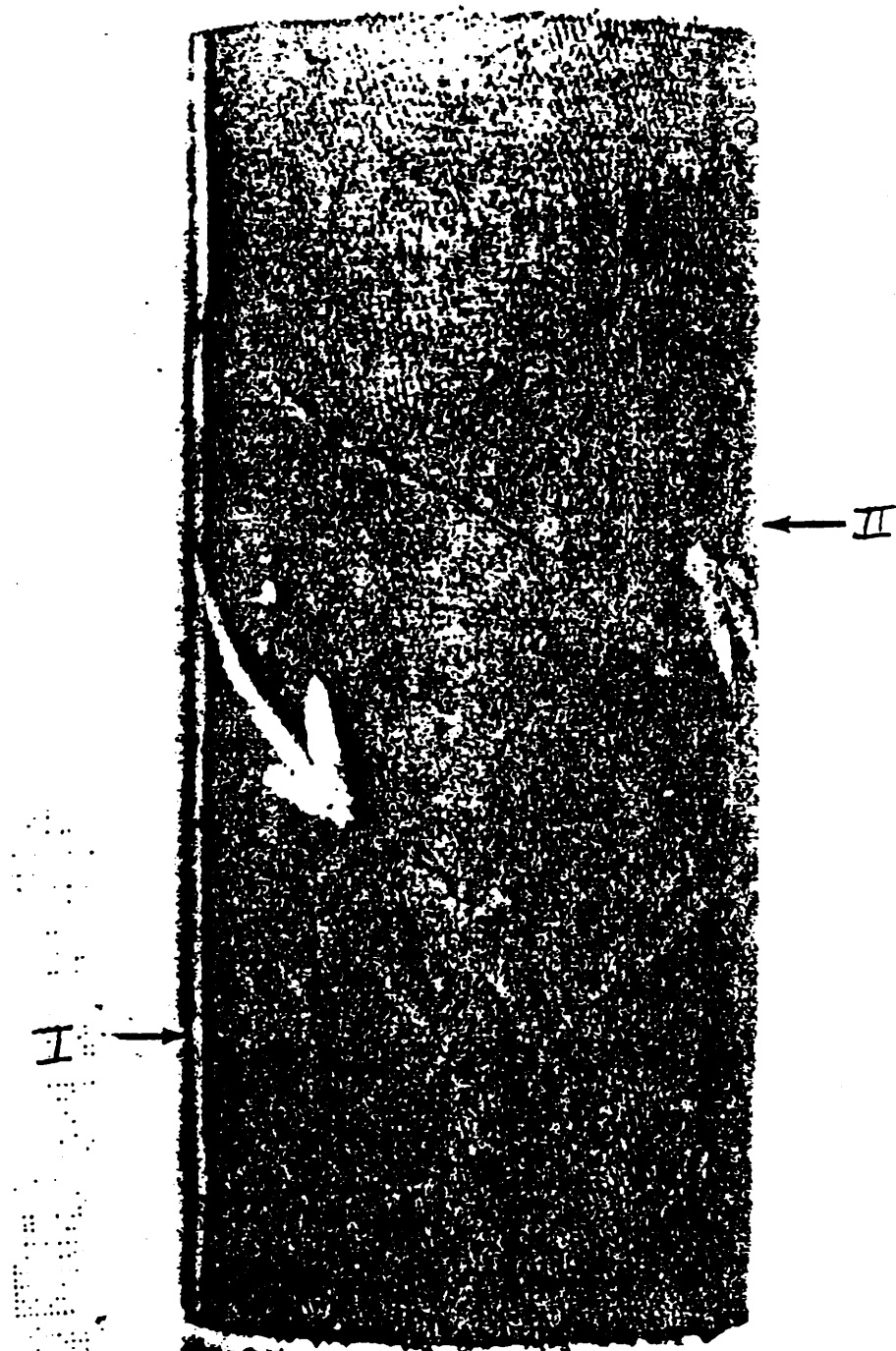


FIGURE 73. Patched cover:

- I—Incorrect thickness, high or low—major.
- II—Correct thickness and securely cured—not a defect.

(Corrected January 4, 1968)

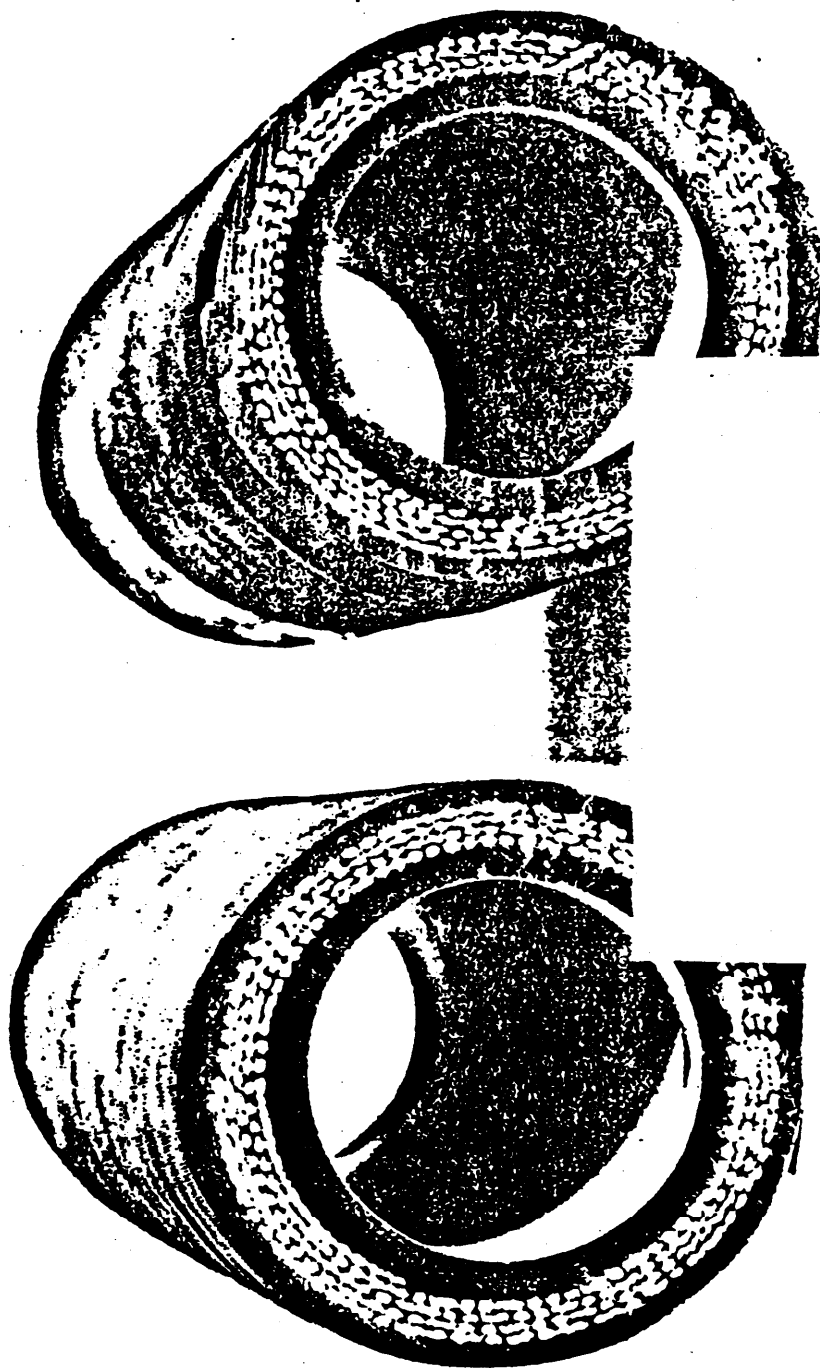


FIGURE 76. Porosity, small localized area, reinforcement not exposed—minor.

(Corrected January 4, 1968)

Fed. Std. No. 162a



FIGURE 77. Pricker marks through to reinforcement—major (see note in table I for other classification).

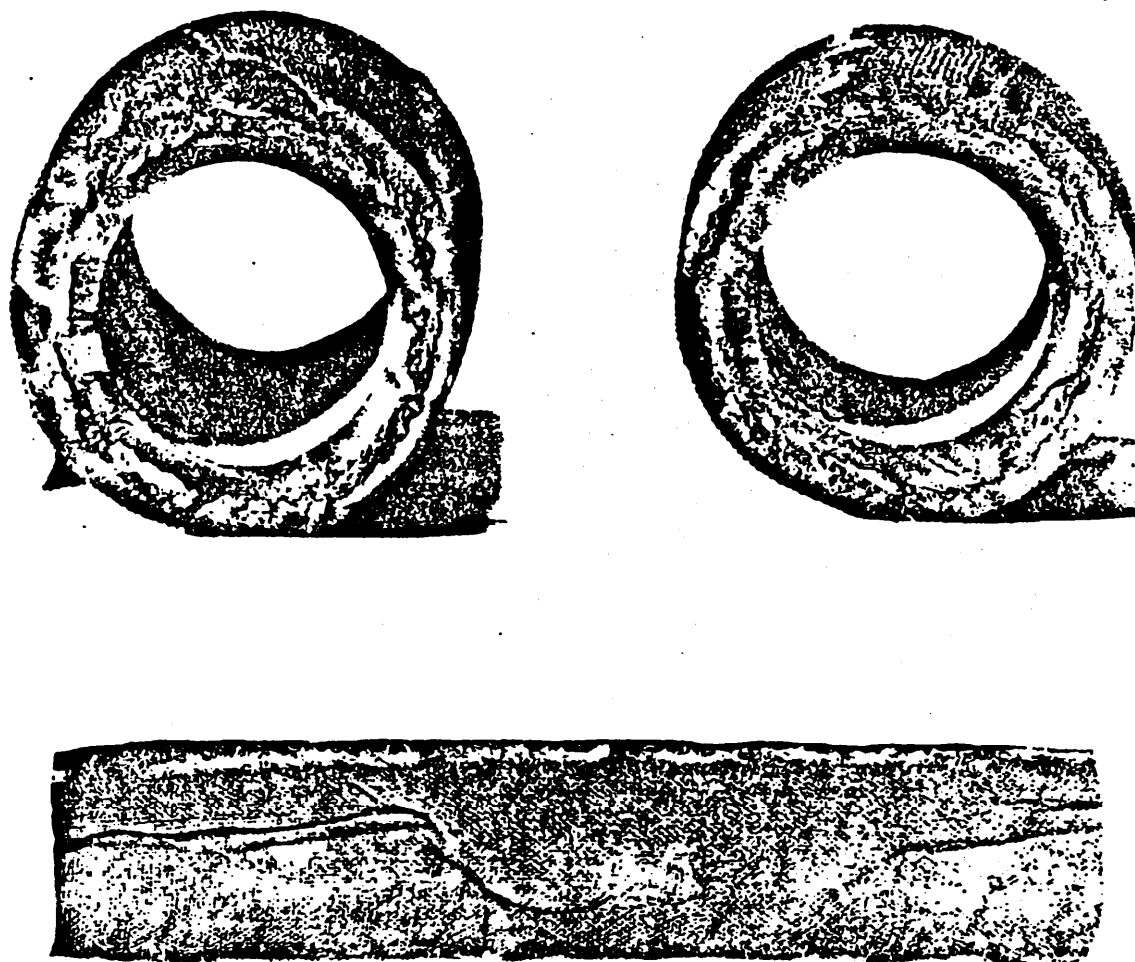


FIGURE 90. Wrinkles, wrapper, medium—major.  
(Corrected January 4, 1968)

Fed. Std. No. 162a

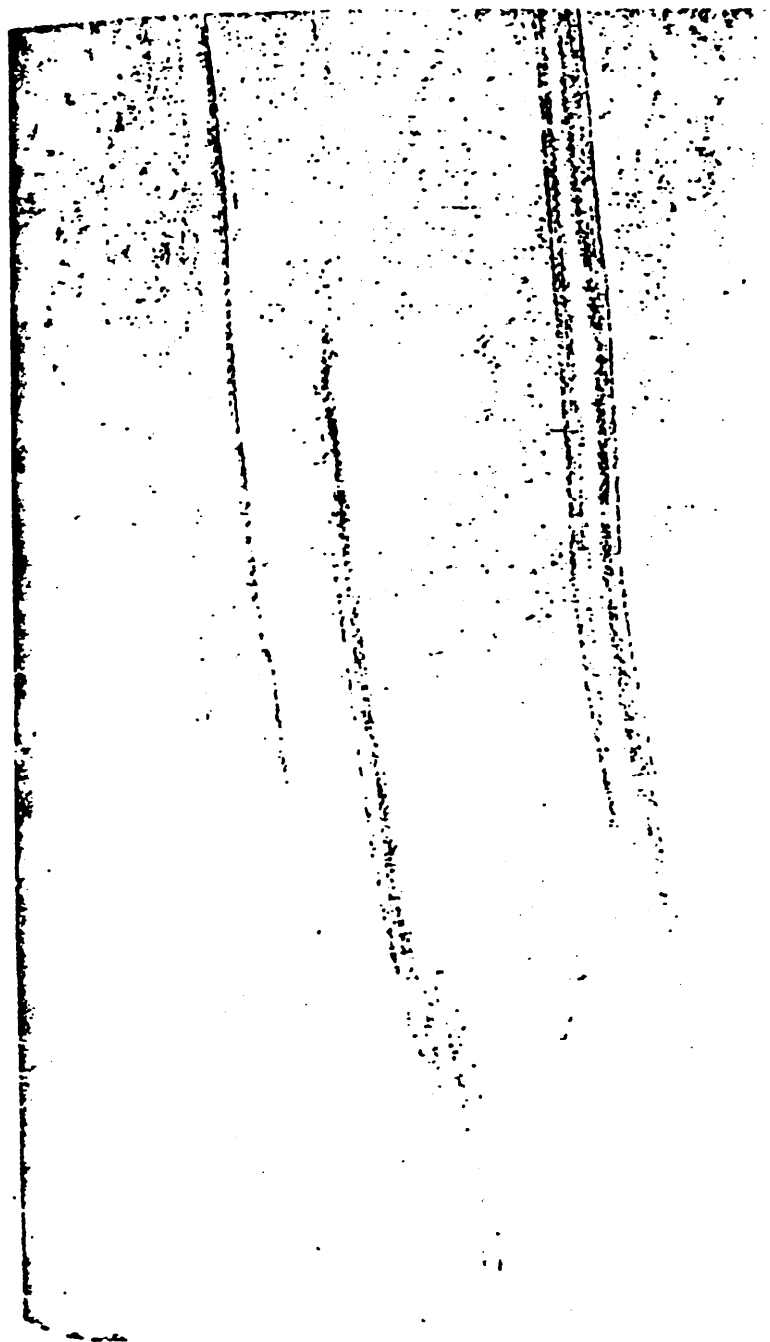


FIGURE 91. Wrinkles, wrapper, small—minor.

(Corrected January 4, 1968)

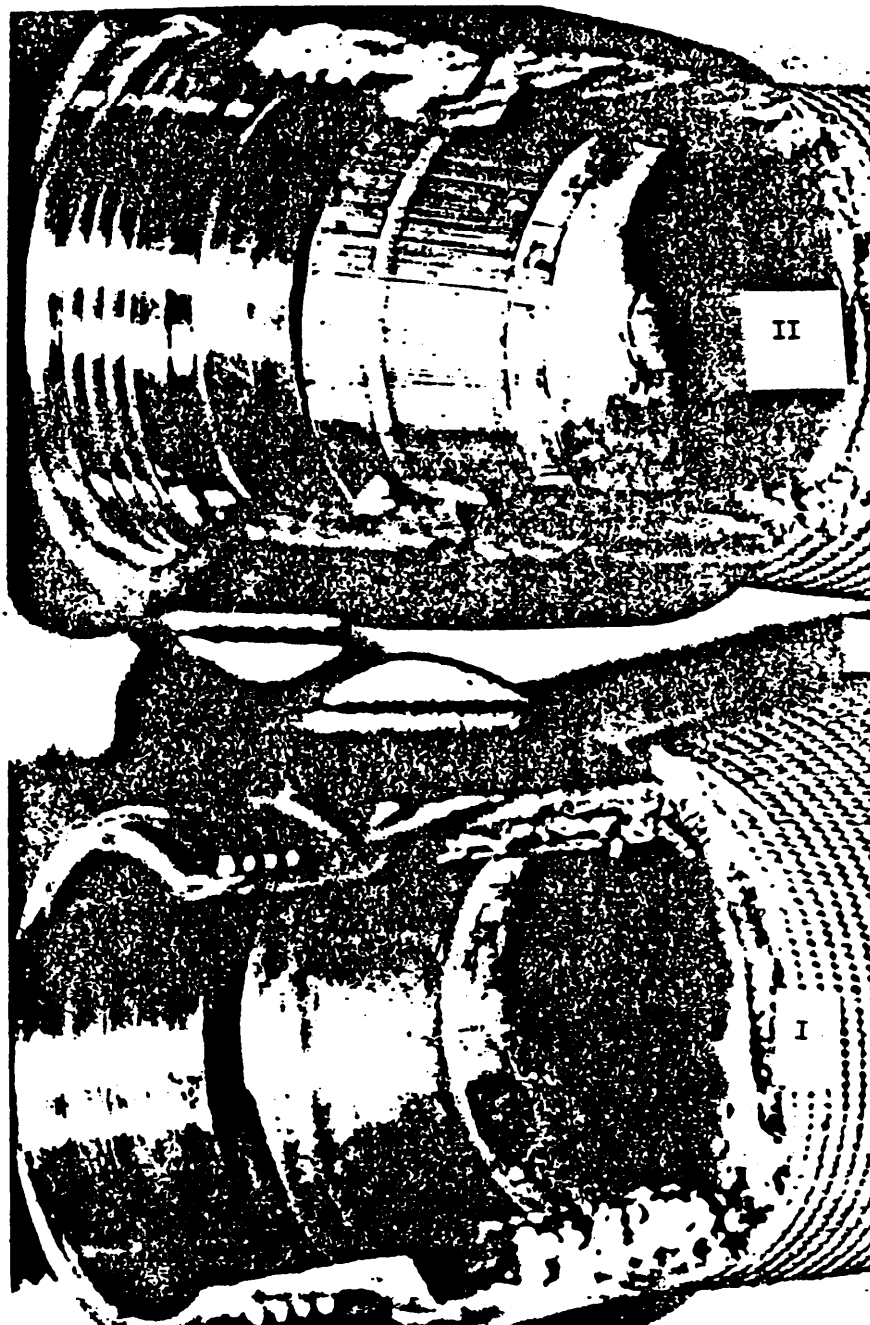


FIGURE 110. Gasket, tail or binder washer for expansion ring coupling:  
I—Not properly placed—major.  
II—Correct placement.

Corrected January 4, 1968)

Fed. Std. No. 162a

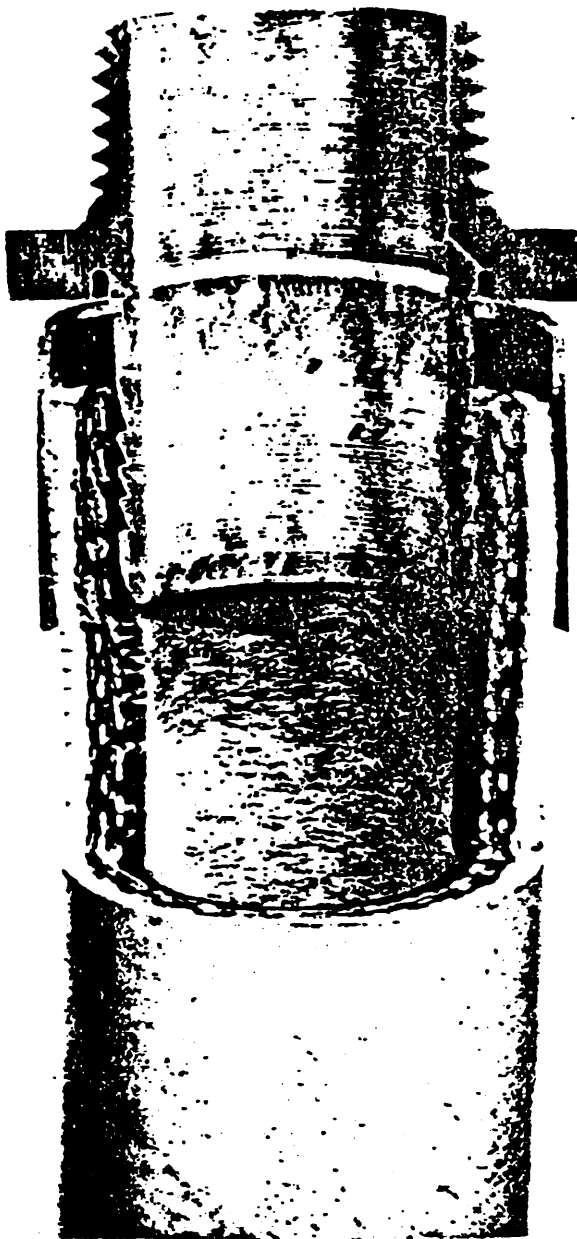


FIGURE 111. Insertion distance wrong—major.  
(Corrected January 4, 1968)

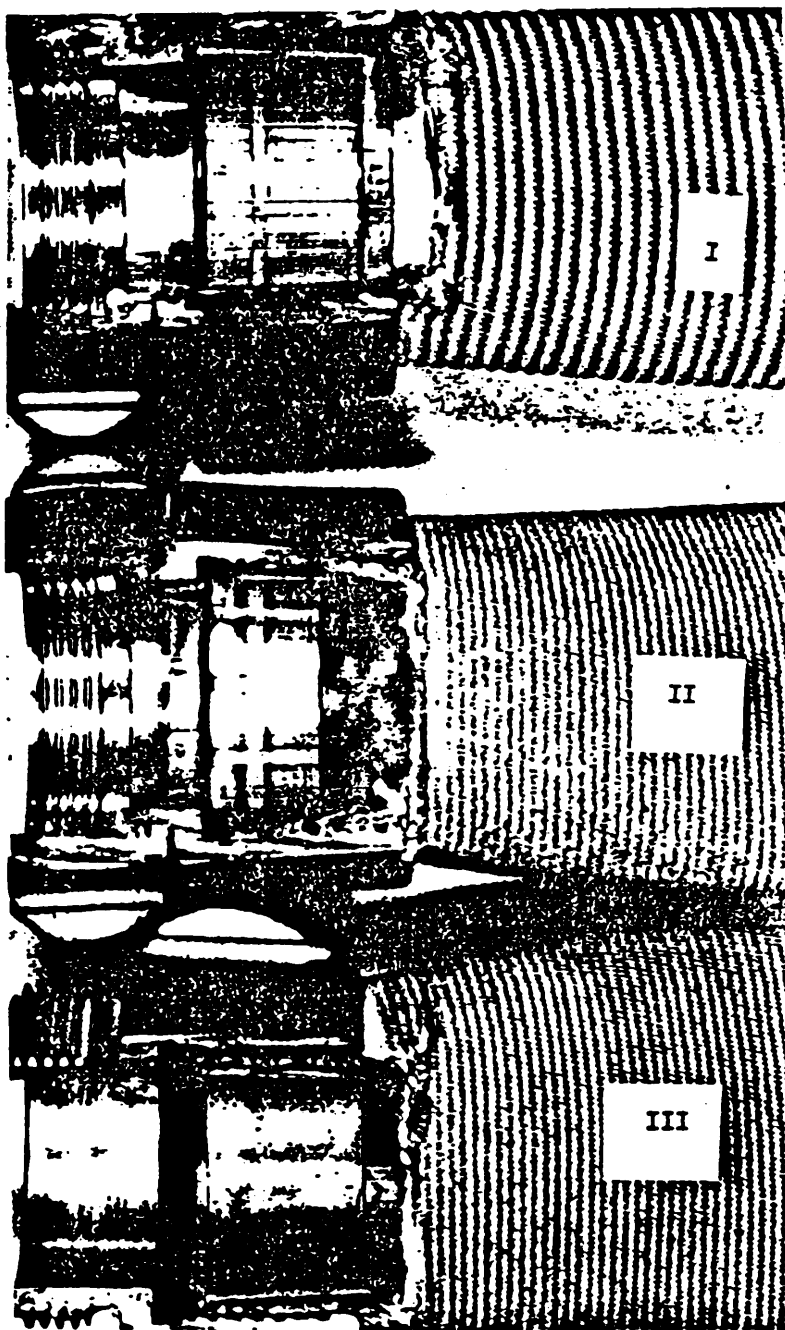


FIGURE 112. Ring, expansion, improperly placed:

I—Correct.

II—Ring in waterway—major.

III—Too much gap—major.

(Corrected January 4, 1968)

Fed. Std. No. 162a



FIGURE 113. Cement in tube—minor.

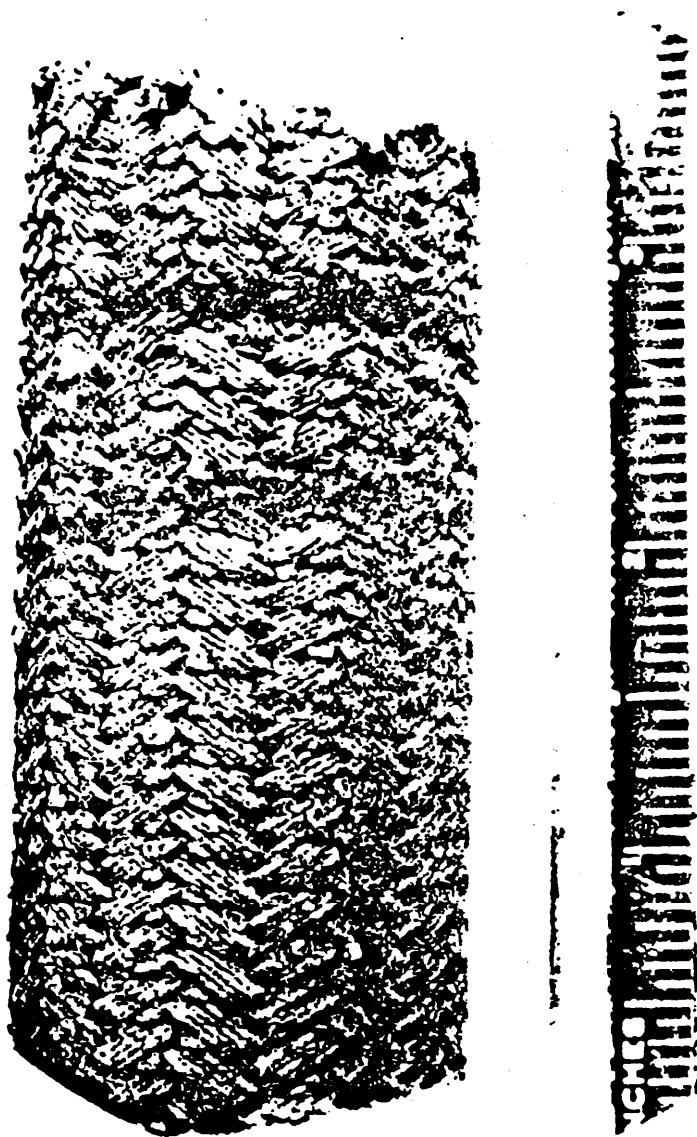


FIGURE 116. Clamp mark—major.  
(Corrected January 4, 1968)

Fed. Std. No. 162a

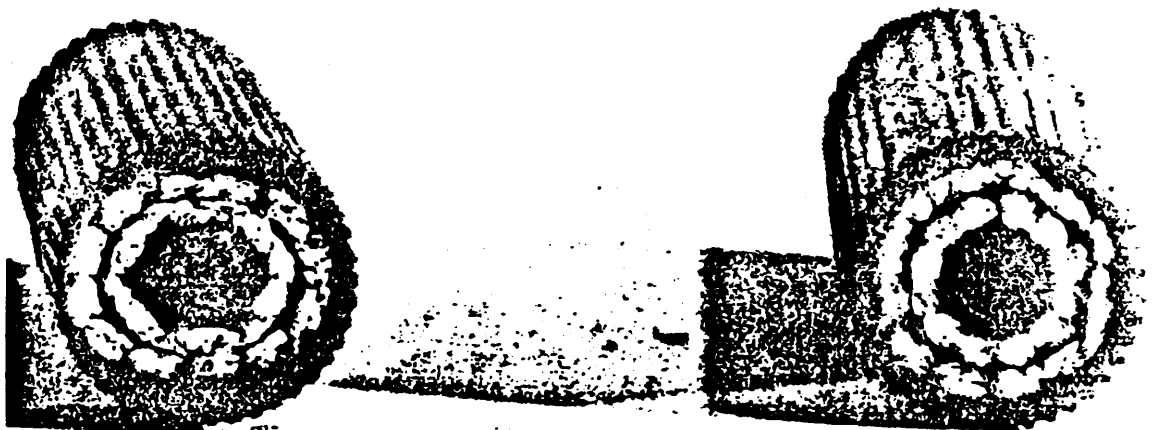


FIGURE 117. Clamp mark—major.  
(Corrected January 4, 1968)

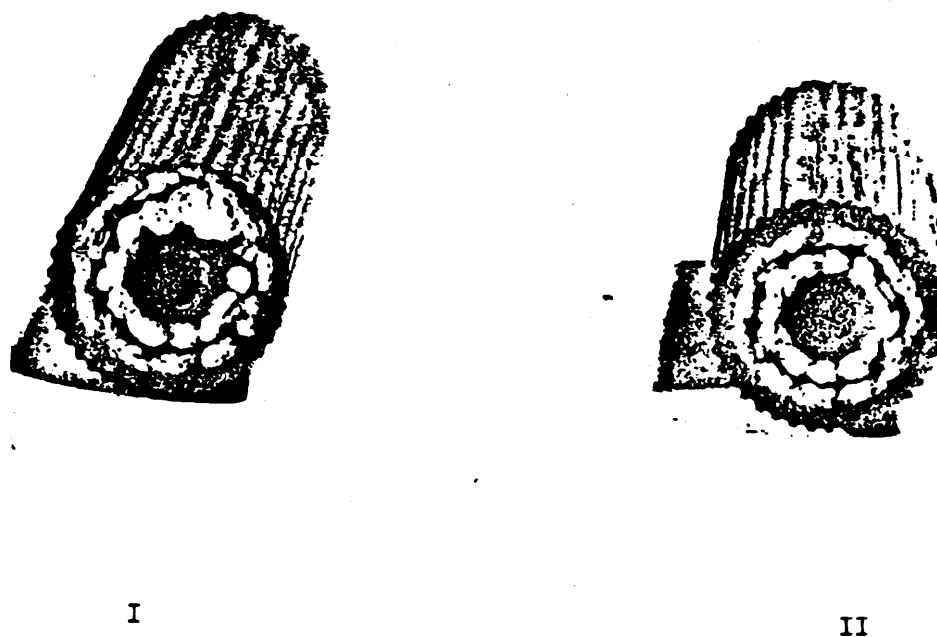


FIGURE 130 Ball-up:  
I—Yarn ball-up—major.  
II—Normal hose.

(Corrected January 4, 1968)

Fed. Std. No. 162a

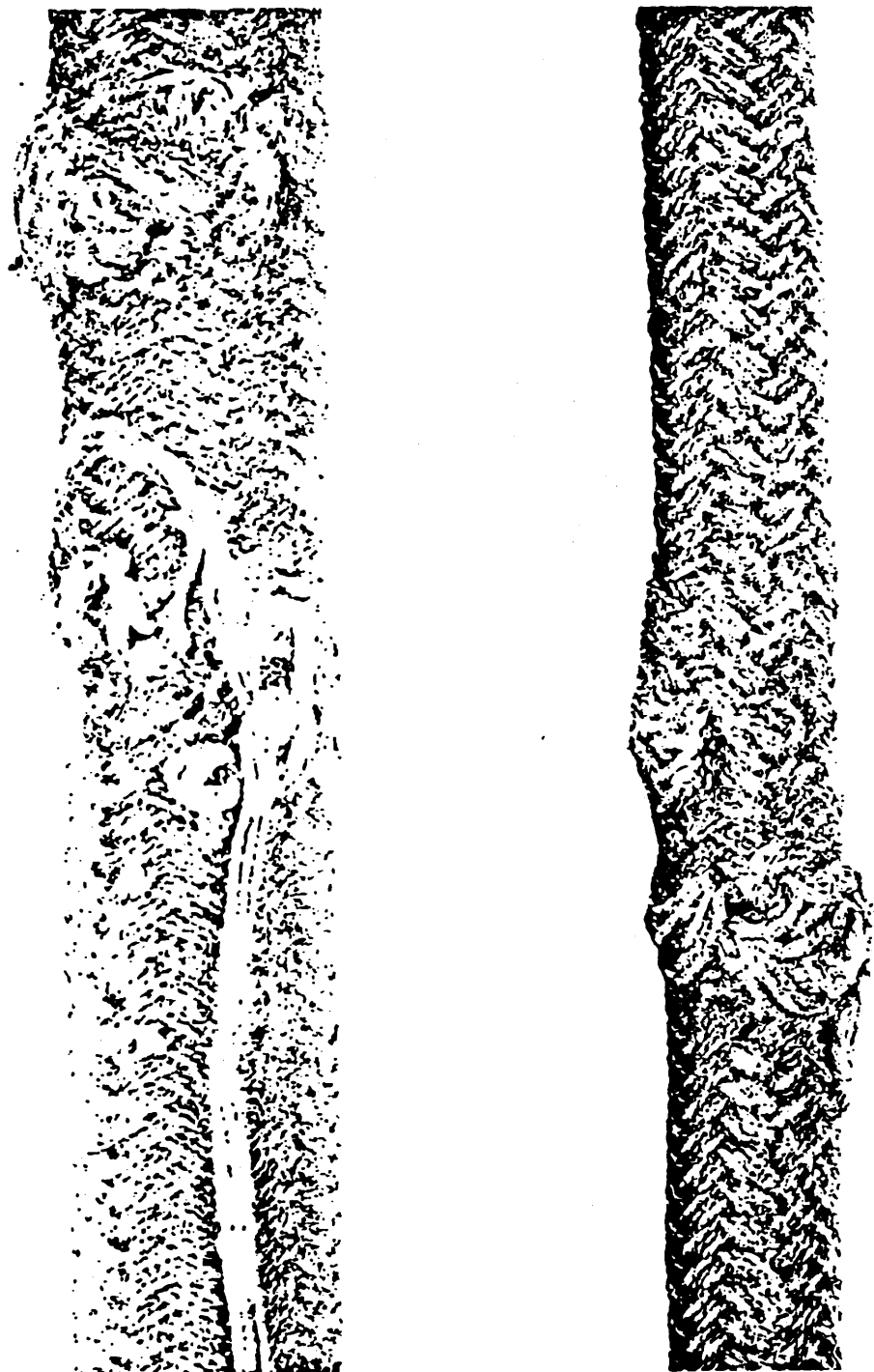


FIGURE 131. Ball-up—major.

(Corrected January 4, 1968)

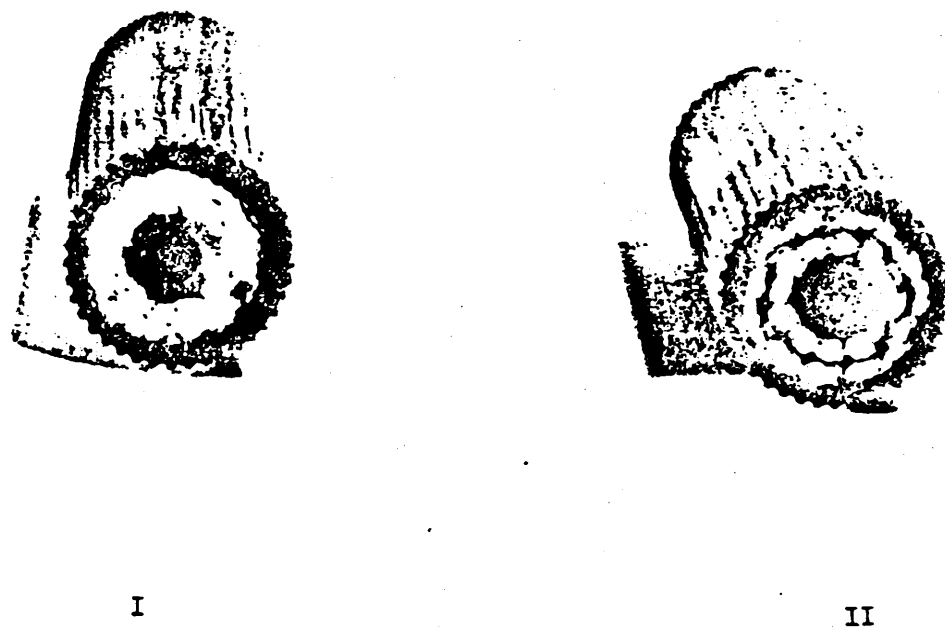


FIGURE 138. Friction between braids, where specified, missing:  
I—Friction missing—major.  
II—Normal hose.

(Corrected January 4, 1968)

Fed. Std. No. 162a

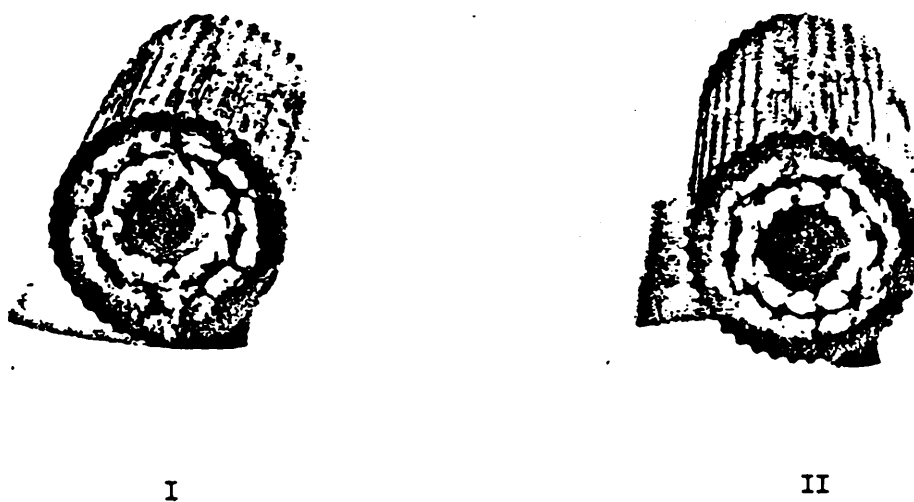


FIGURE 139. Knot in yarn:  
I—Knot in yarn—major.  
II—Normal hose.

(Corrected January 4, 1968)



FIGURE 152. Wire through cover—major.

(Corrected January 4, 1968)

Fed. Std. No. 162a

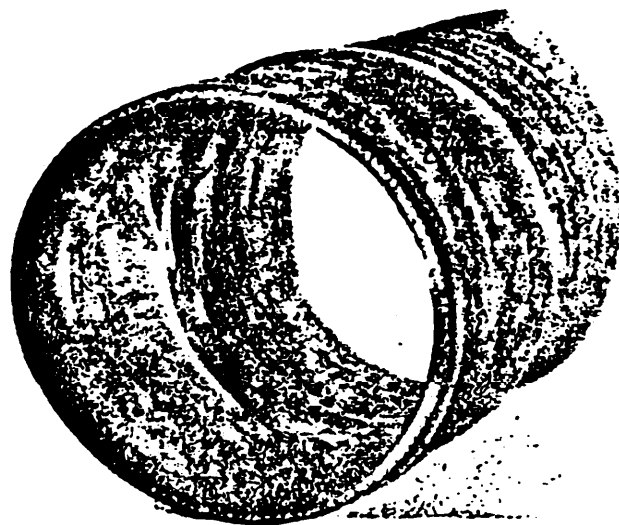


FIGURE 153. Wire through tube—major.

(Corrected January 4, 1968)

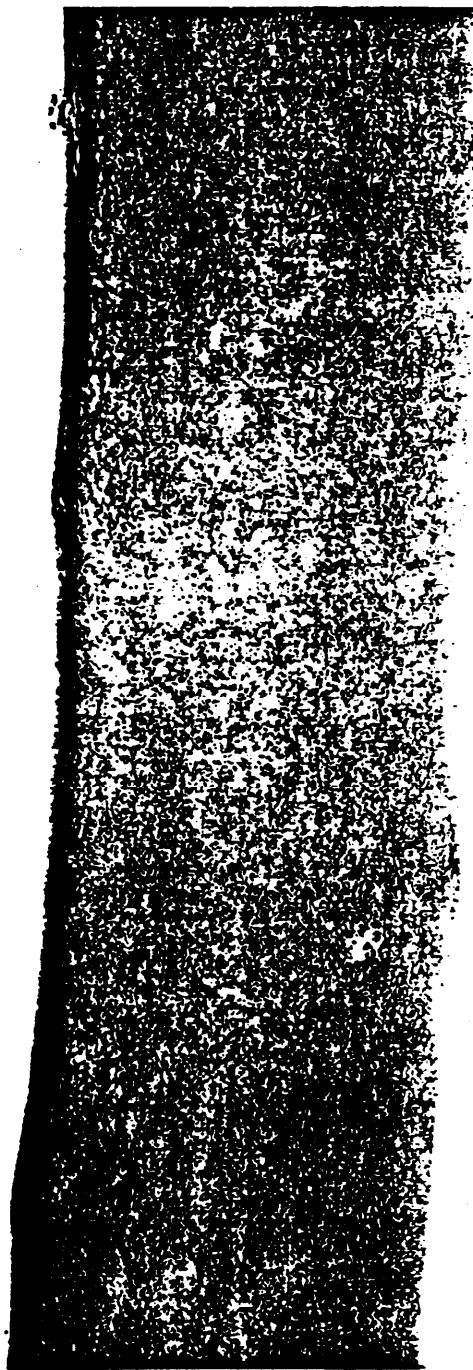


FIGURE 166. Wire, static, bulge: with loose cover—major; dynamic use (Air Force procurement only)—major; with adhered cover—not a defect.

(Corrected January 4, 1968)

Fed. Std. No. 162a

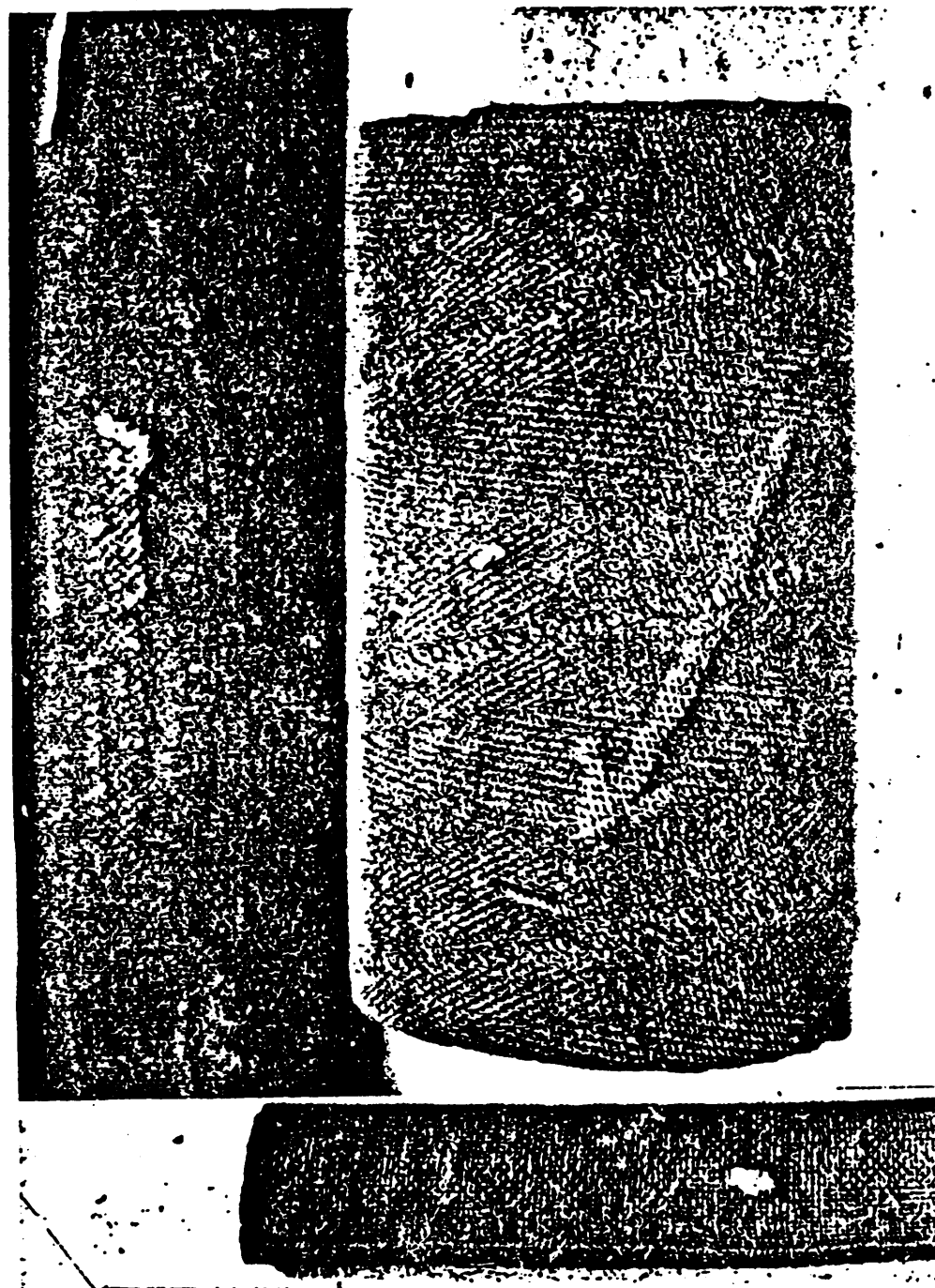


FIGURE 167. Yarn through cover—major.

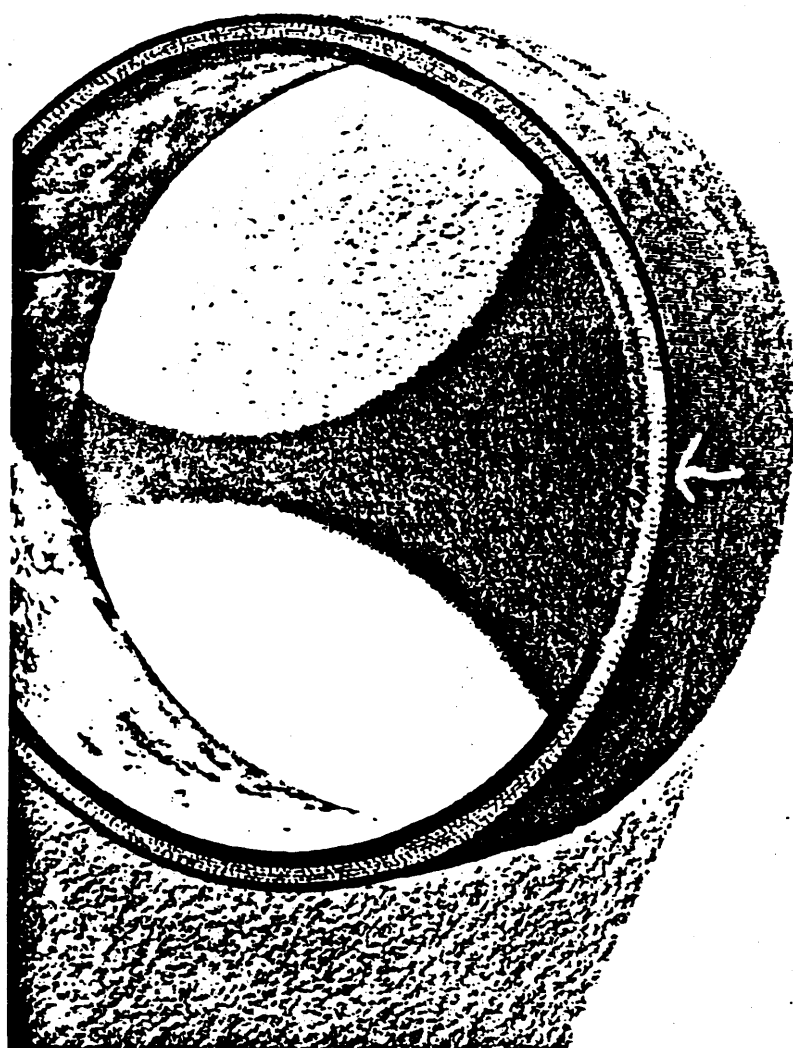


FIGURE 174. Hole—major.  
(Corrected January 4, 1968)

Fed. Std. No. 162a

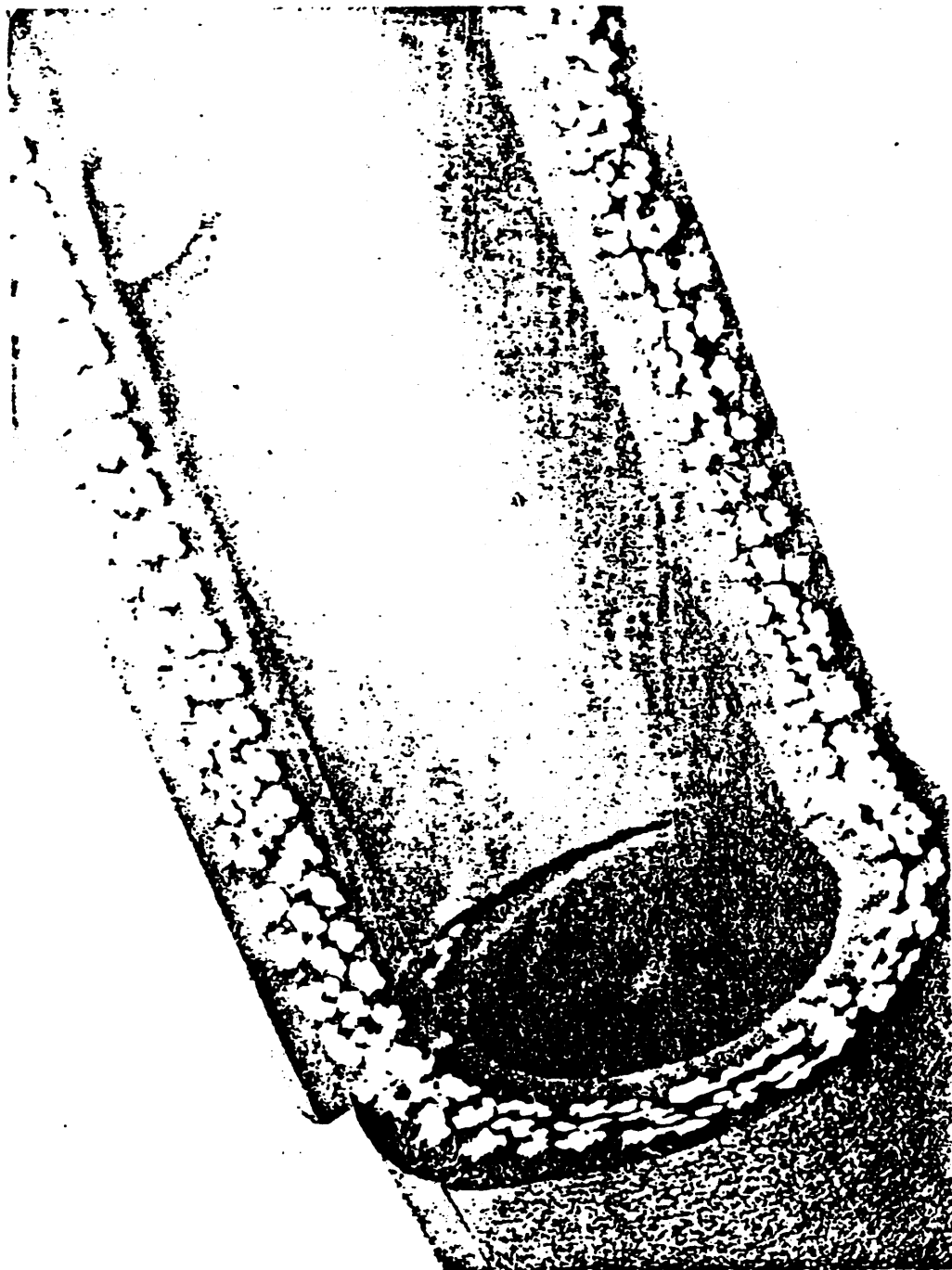
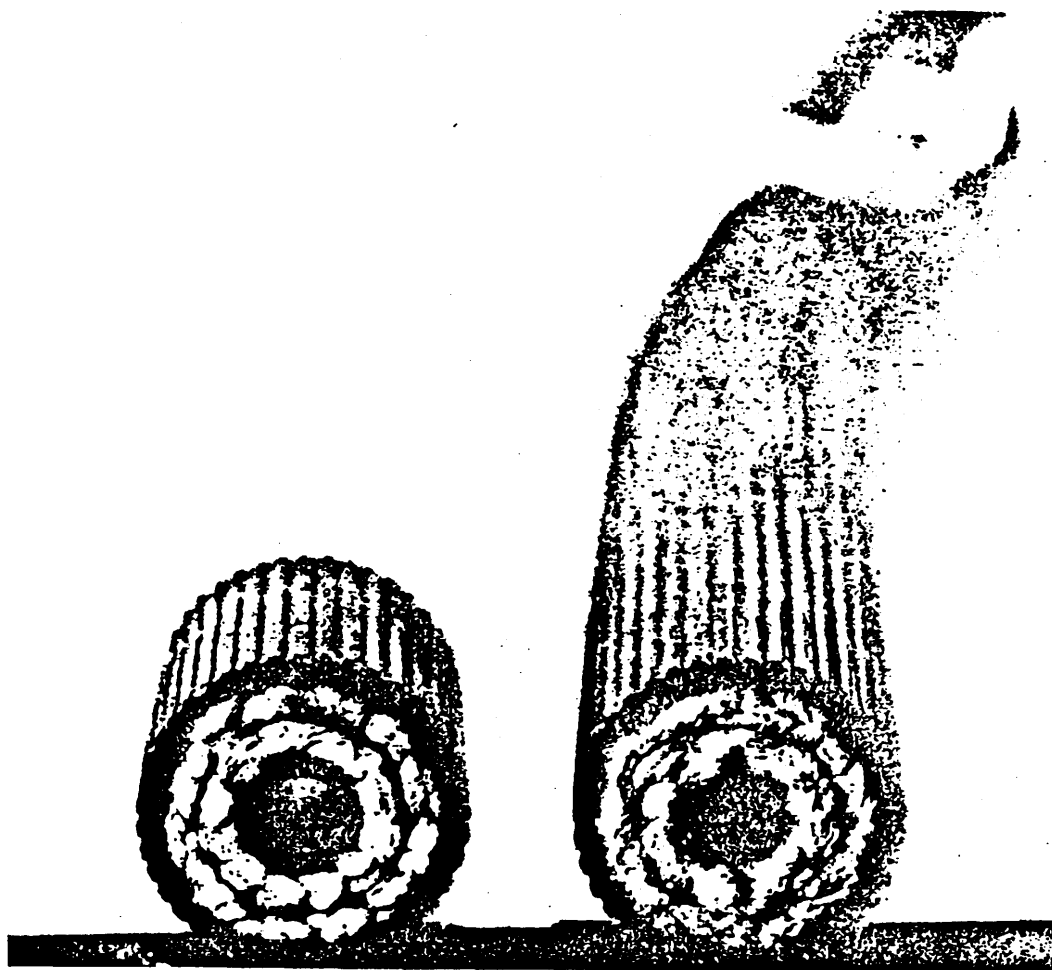


FIGURE 175. Hole—major.  
(Corrected January 4, 1968)



I

II

FIGURE 186. Tube missing:

I—Normal hose.

II—Major.

(Corrected January 4, 1968)

Fed. Std. No. 162a

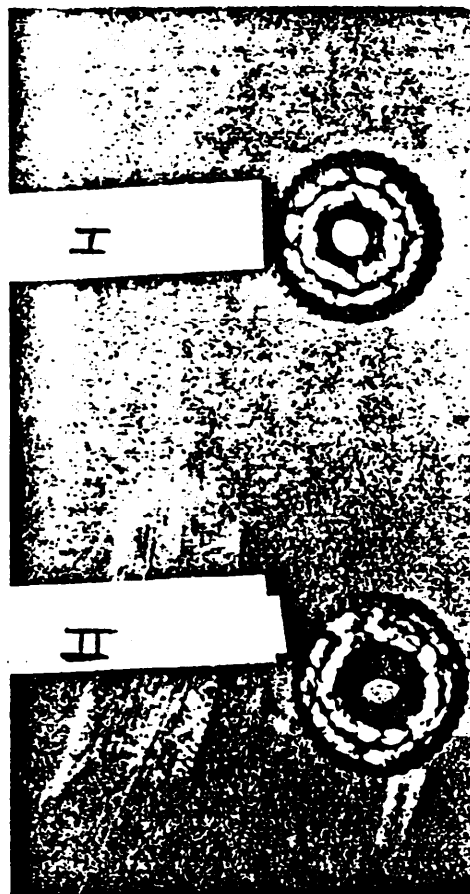


FIGURE 187. Off-center tube:  
I—Thickness meets tolerance—not a defect.  
II—Thickness below tolerance—major.

(Corrected January 4, 1968)

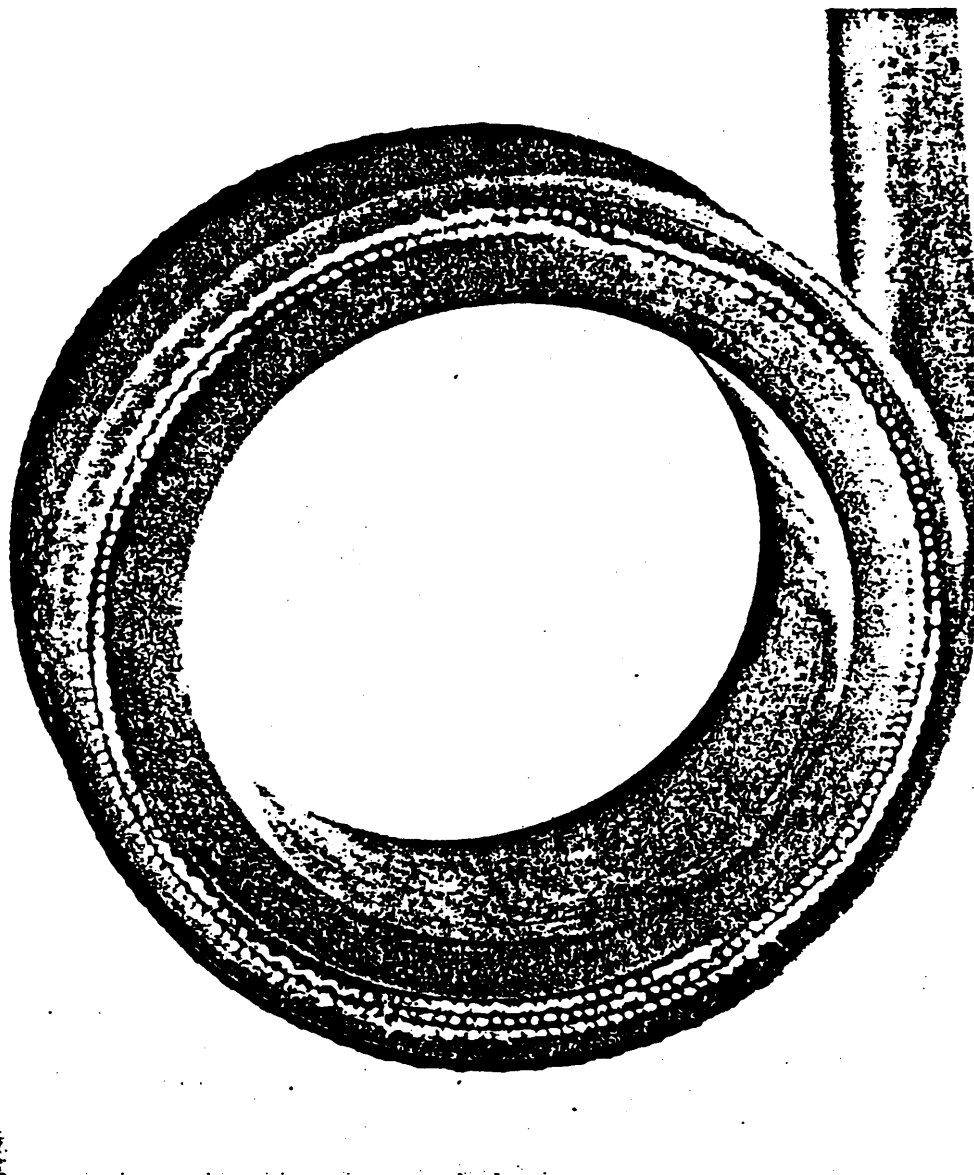


FIGURE 192. Porosity, more than 15 percent of tube thickness—major.

(Corrected January 4, 1968)

Fed. Std. No. 162a

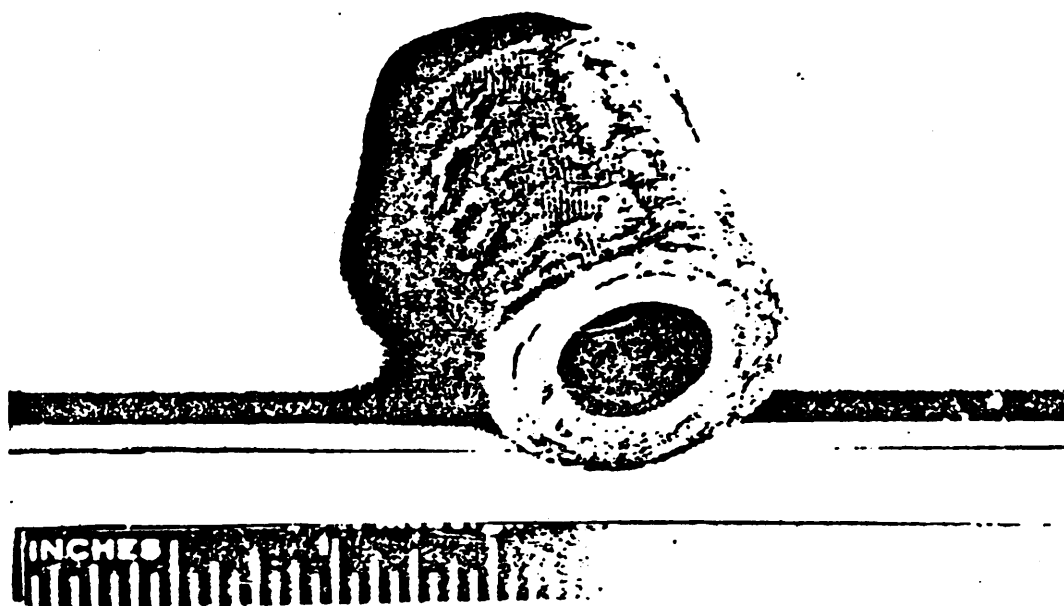


FIGURE 193. Ring: class A—major; classes B and C—not a defect.

(Corrected January 4, 1968)



FIGURE 200. Surface irregularity: when assembled with swaged fitting—major; all others—minor.

(Corrected January 4, 1968)

Fed. Std. No. 162a

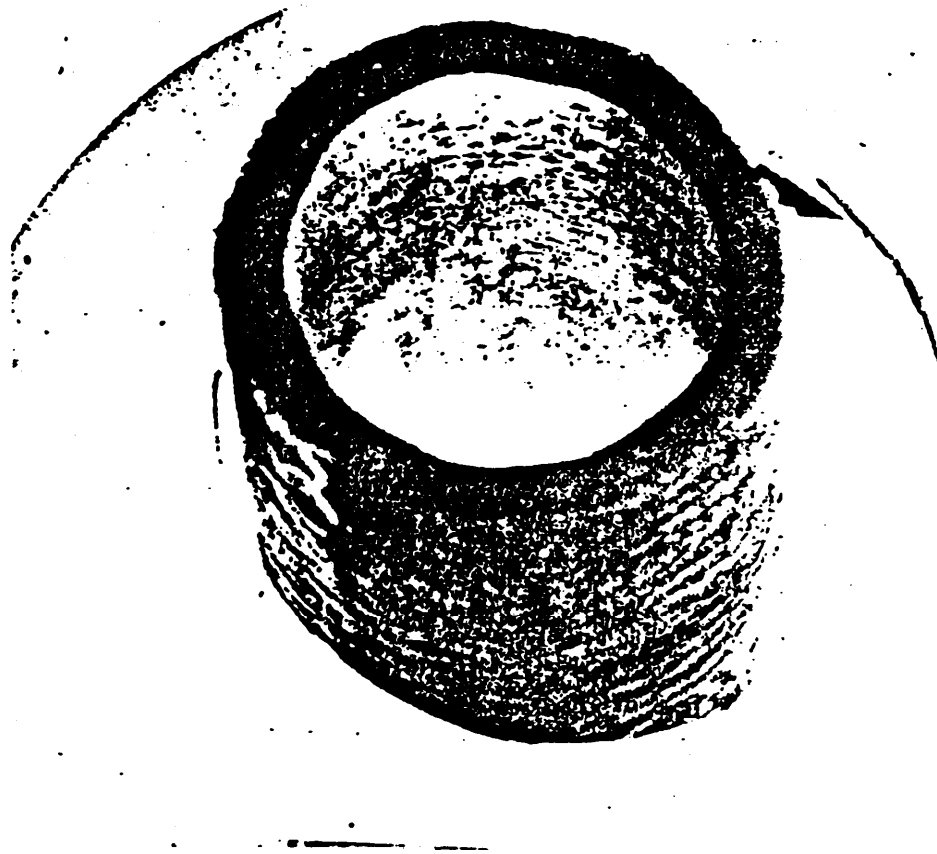


FIGURE 201, Surface irregularity: when assembled with swaged fittings—major; all others—minor.

(Corrected January 4, 1968)

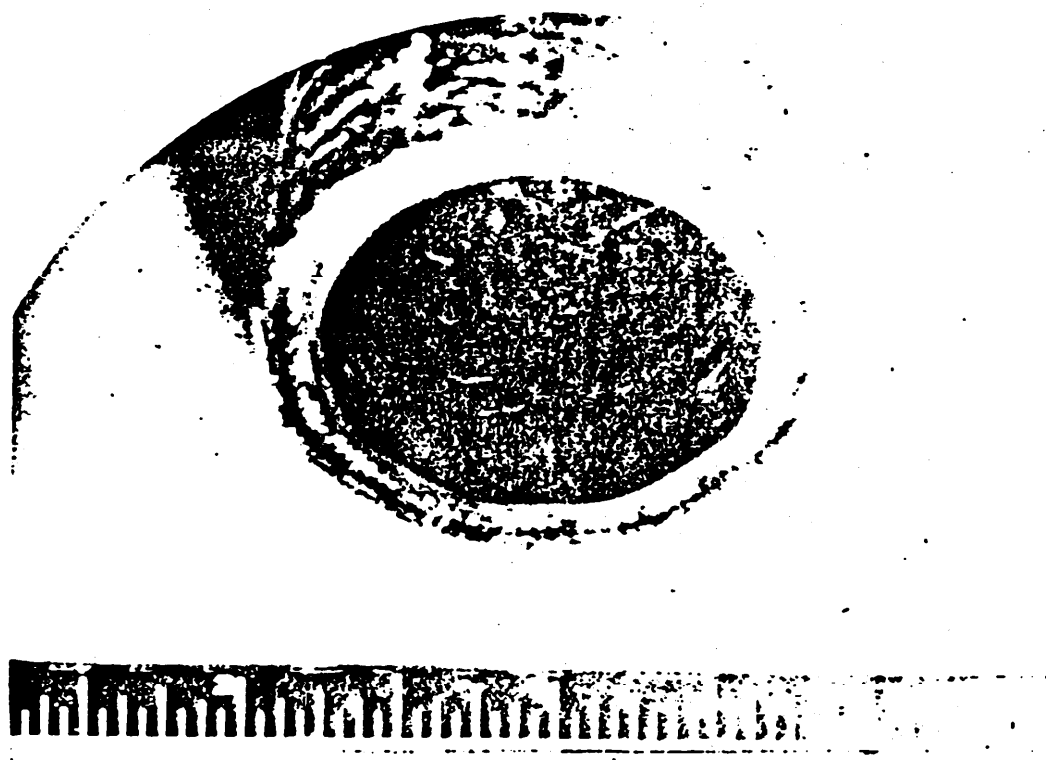


FIGURE 202. Surface irregularity: when assembled with swaged fittings—major; all others—minor.

(Corrected January 4, 1968)

Fed. Std. No. 162a

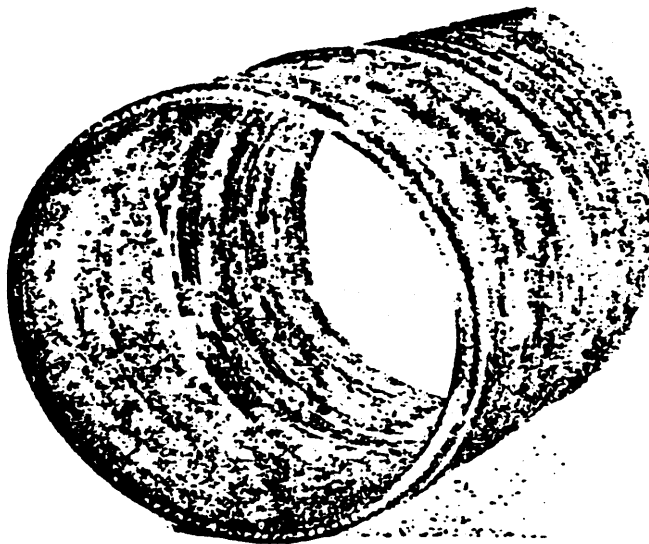


FIGURE 203. Wire through tube—major.

(Corrected January 4, 1968)

\* U. S. GOVERNMENT PRINTING OFFICE: 1968 0 - 302-507 (514)