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6/4/79
12/9/80

SPECIAL RE-REVIEW
FINAL DETERMINATION
UNCLASSIFIED, DATE: 12/9/80

LOS ALAMOS NATIONAL LABORATORY

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December 10, 1945

This document contains 158 pages

BUILDING D PLUTONIUM PURIFICATION:

VERIFIED UNCLASSIFIED DRAWINGS

Per LNR 6-11-79

By JWB 3-6-96

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[REDACTED]

ABSTRACT

Assembly and part drawings for all the equipment used in the purification of plutonium in Building D are compiled in this report.

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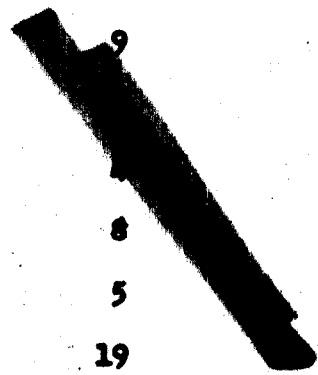
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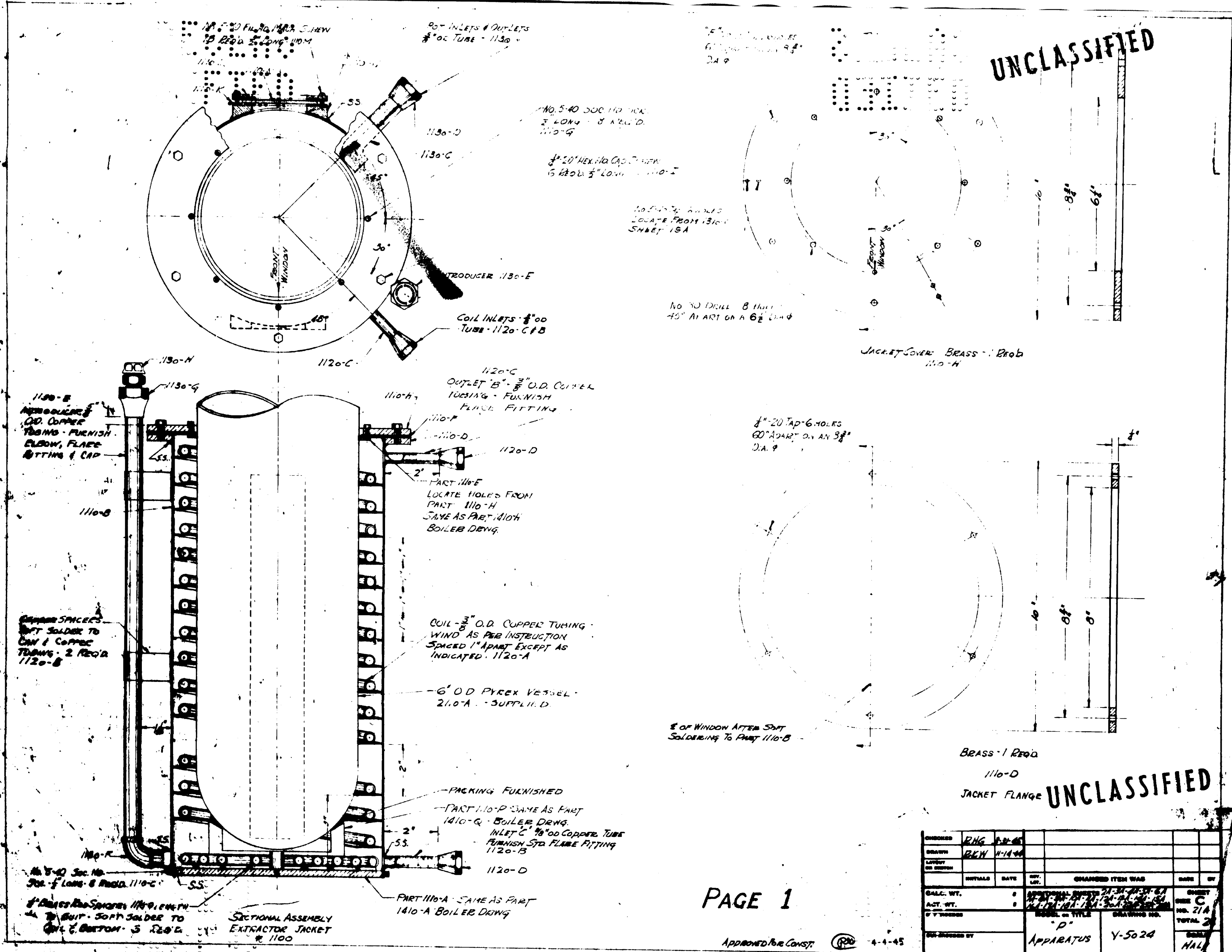
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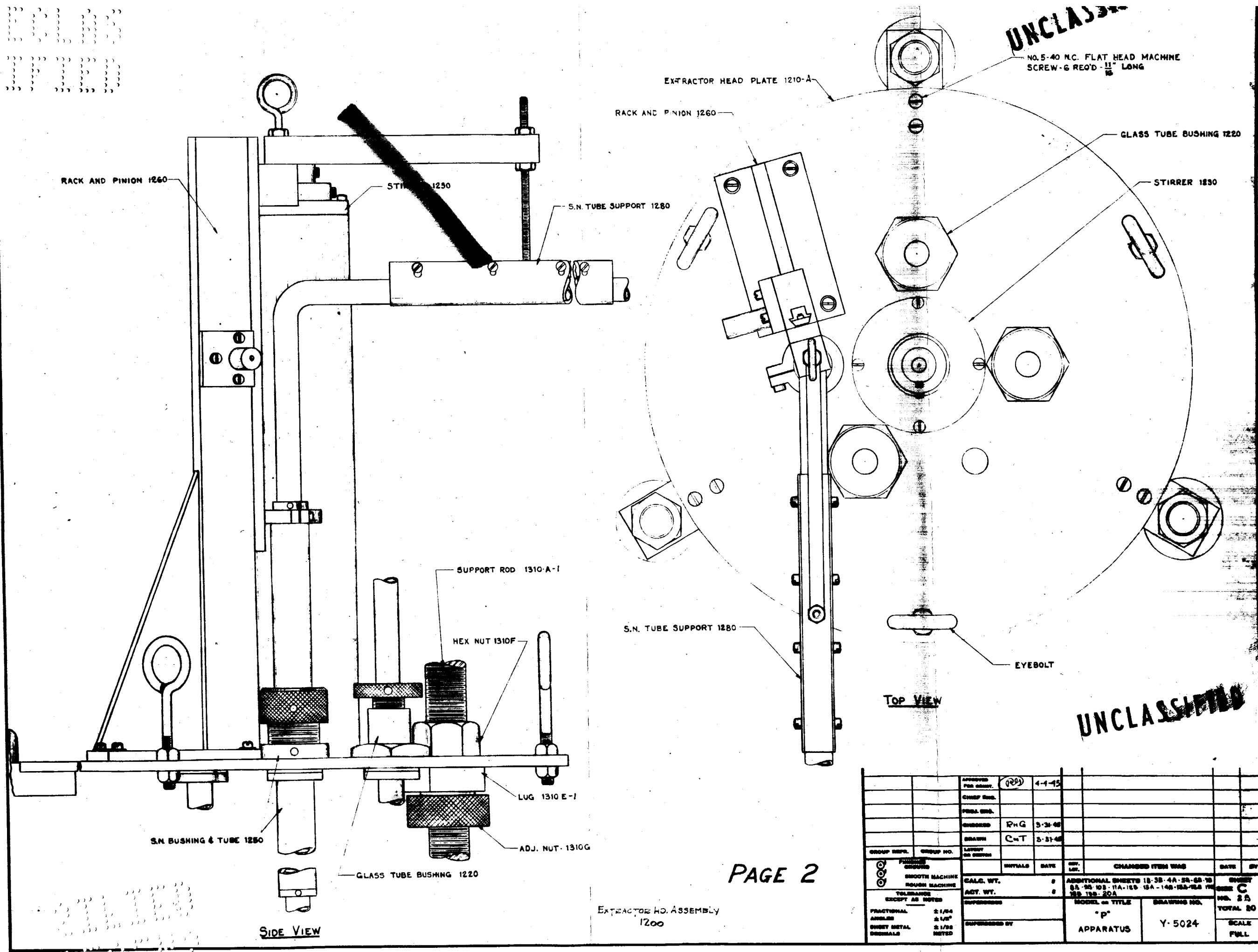
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PAGE 1

APPROVED FOR CONST. 4-4-45

DESIGNED	RHG	4-2-45					
DRAWN	RKW	4-14-45					
CHECKED							
APPROVED							
INITIALS		DATE	REV.	CHANGED ITEM	DATE	BY	
CALC. WT.				ADDITIONAL SHEETS	21-24-25-26-27		
ACT. WT.				NO. 21A			
				MODEL OR TITLE	APPARATUS	DRAWING NO.	Y-5024
DESIGNED BY							

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EXTRACTOR HEAD PLATE 1210-A
RACK AND PINION 1260

NO. 5-40 N.C. FLAT HEAD MACHINE SCREW-6 REOD - 1 1/2" LONG

RACK AND PINION 1260

STIRRER 1250

S.N. TUBE SUPPORT 1280

GLASS TUBE BUSHING 1220

STIRRER 1250

SUPPORT ROD 1310-A-1

HEX NUT 1310F

S.N. TUBE SUPPORT 1280

EYEBOLT

TOP VIEW

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S.N. BUSHING & TUBE 1250

LUG 1310 E-1

ADJ. NUT - 1310G

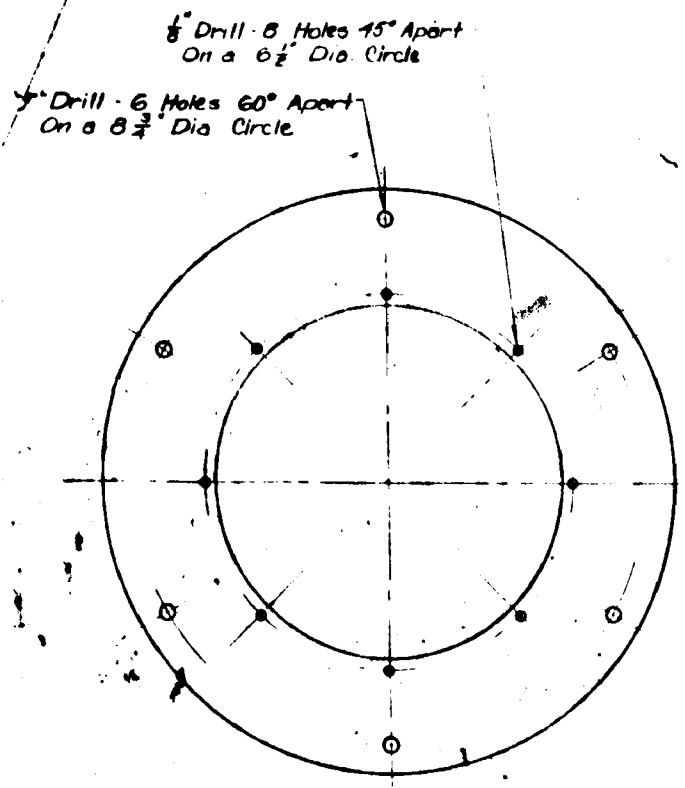
GLASS TUBE BUSHING 1220

SIDE VIEW

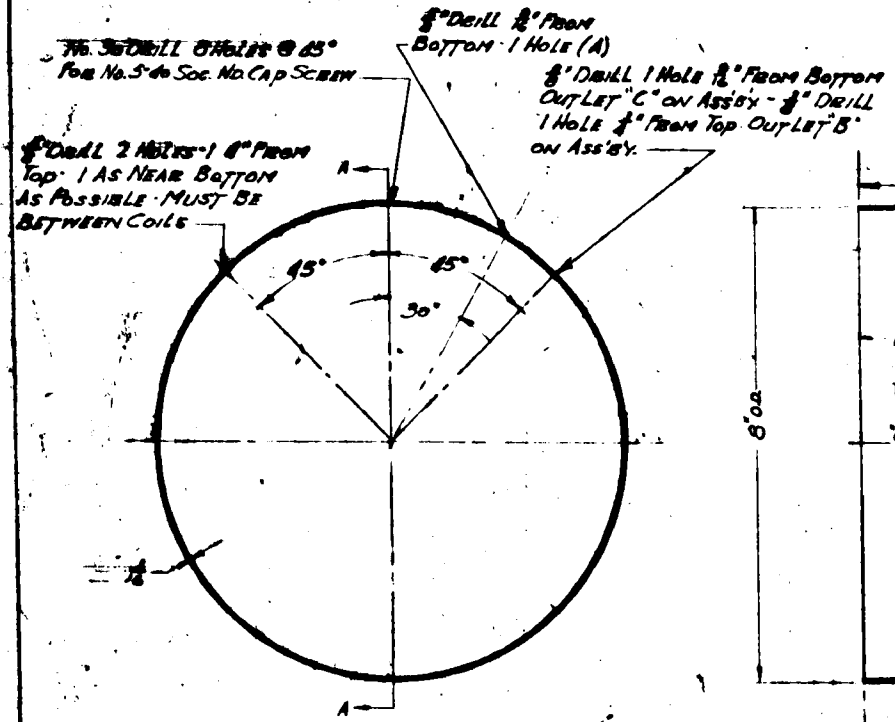
PAGE 2

EXTRACTOR HD. ASSEMBLY 1200

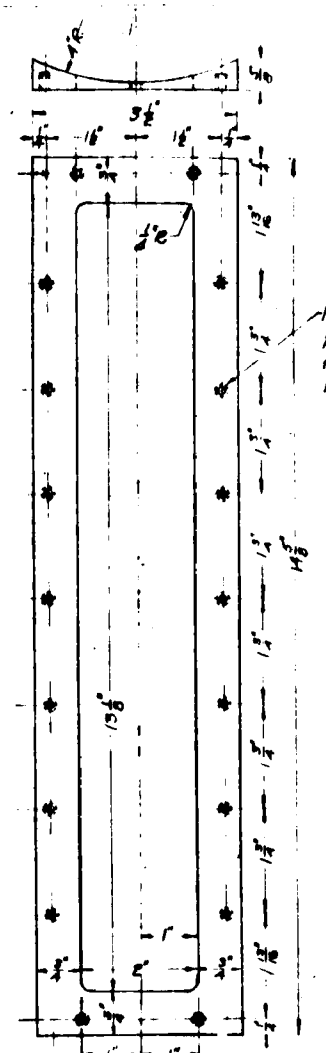
APPROVED FOR ASSEMBLY	(R9)	4-4-45					
GROUP DESIGNED							
GROUP DRAWN							
GROUP CHECKED	RHG	3-24-45					
GROUP APPROVED	C-T	3-21-45					
GROUP REVISIONS							
GROUP NO.							
INITIALS		DATE	REV.	NO.	CHANGED ITEM WAS	DATE	BY
FRAC. MACHINE							
SMOOTH MACHINE							
TELEGRAPHIC							
EXCEPT AS NOTED							
FRACTIONAL	2 1/8"						
ANGLES	2 1/8"						
SHEET METAL	2 1/8"						
FINISHES	NOTED						
SUPPLEMENTED BY							
CALC. WT.					ADDITIONAL SHEETS 1B-3B-4A-5A-6A-7B		
ACT. WT.					8A-9B-10B-11A-12B-13A-14B-15B-16A		
					17B-18A-20A		
					MODEL OR TITLE	DRAWING NO.	SHEET C
					"P"	Y-5024	NO. 25
					APPARATUS		TOTAL 20
							SCALE FULL



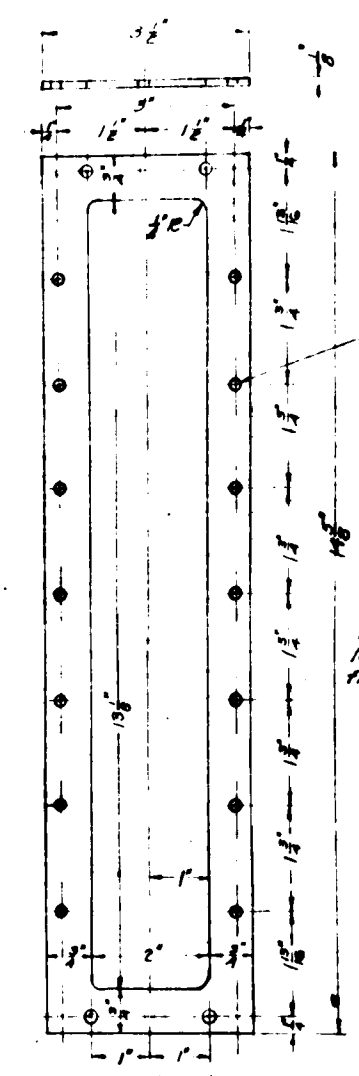
1110-F
NEOPRENE GASKET
Make One



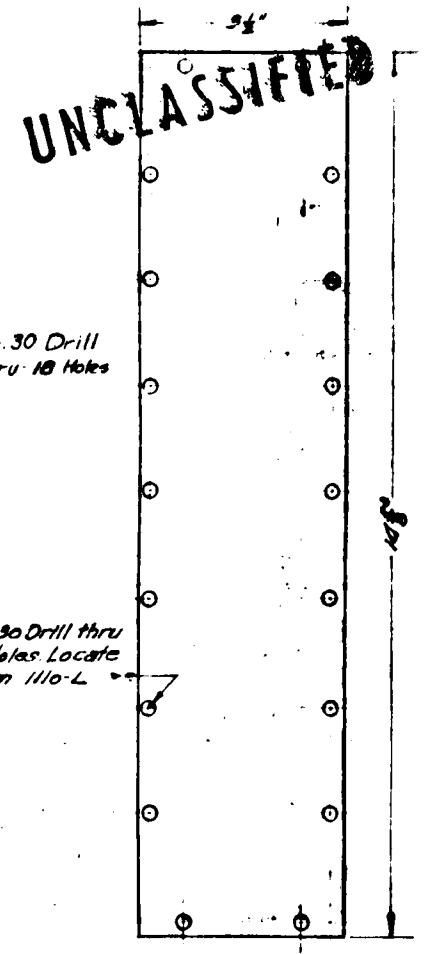
1110-B
JACKET WALL
 $\frac{1}{2}$ " Wall Brass Tubing
Make One - Sort Sol. To Part 1110-A
Note: This Cylinder May be Rolled and Soldered



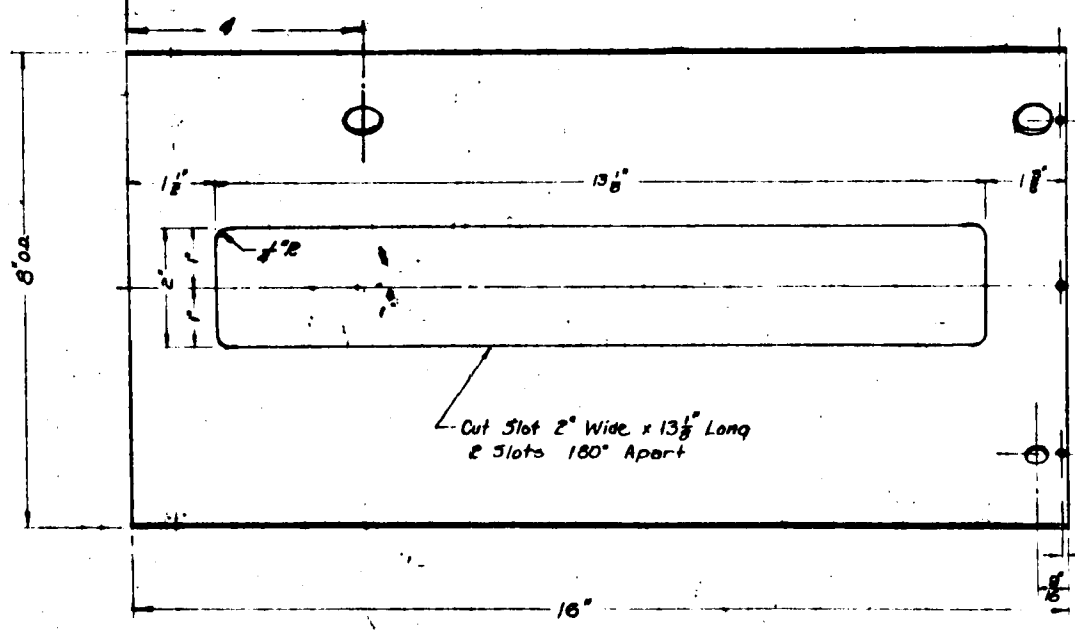
1110-d
WINDOW FRAME
Brass
Make Two



1110-L
WINDOW PLATE
Brass - Make Two



1110-N
WINDOW
 $\frac{1}{8}$ " Thick GS-50
Make Two
MATERIAL SUPPLIED



SECTION A-A

1110-K
 $\frac{1}{16}$ " Neoprene Gasket - Make 3
Cut To Same Pattern As 1110-L

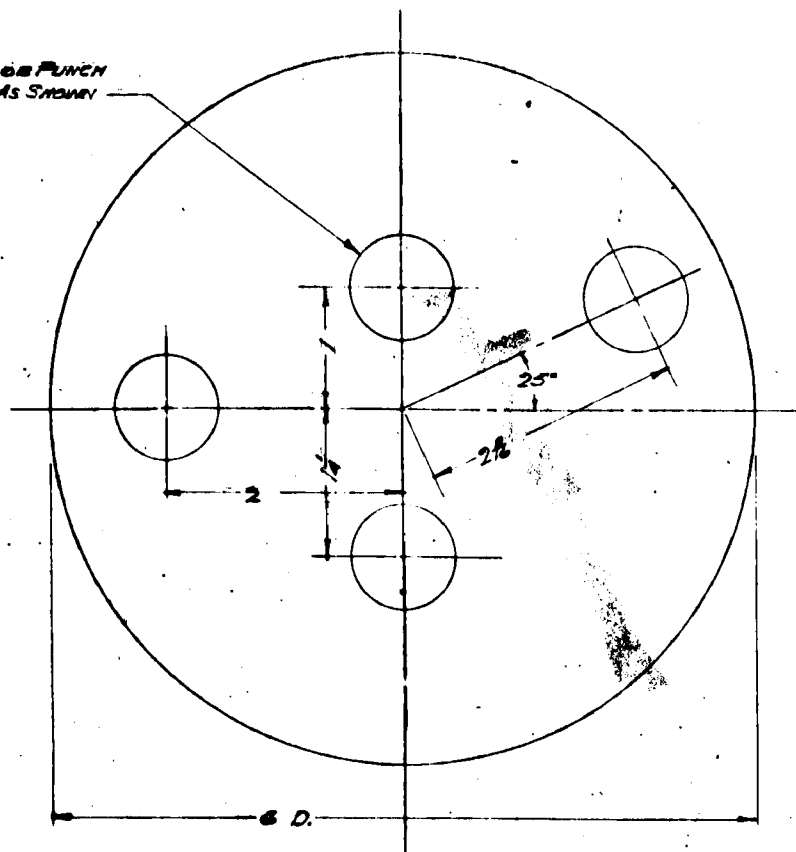
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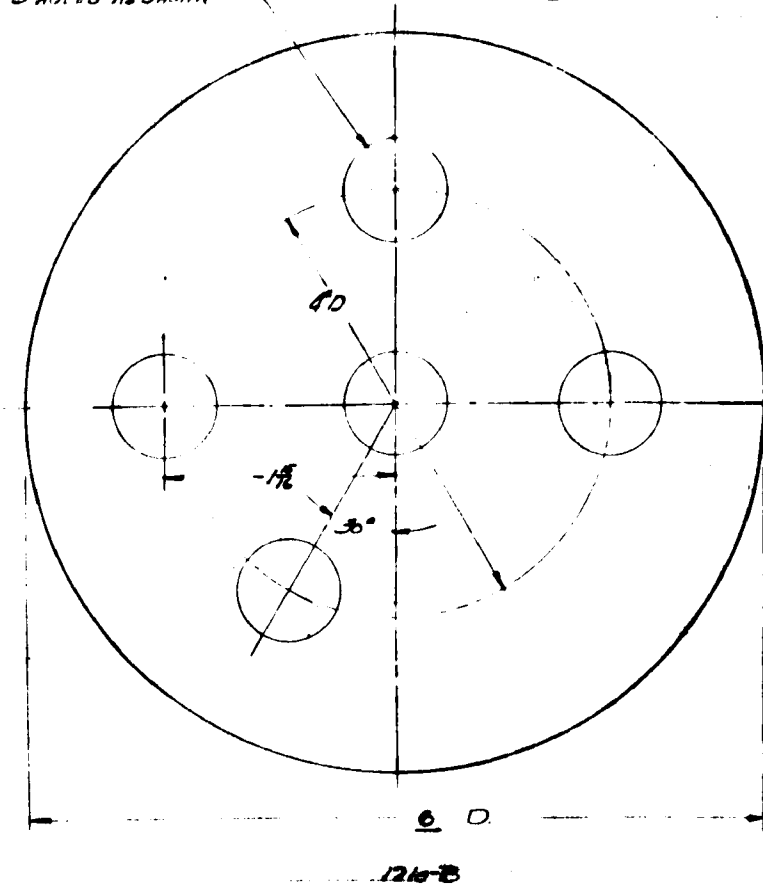
DESIGNED	RNG	5-7-45					
DRAWN	ELW	1-5-45					
LAYOUT							
CHECKED							
APPROVED							
CALC. WT.			ADDITIONAL SHEETS 1A-21-22-23-24				
ACT. WT.			25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000				
MODEL - TITLE			DRAWING NO.				
APPARATUS			Y-5024				
SHEET			NO. 22A				
TOTAL 24			SCALE				
			NHP				

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$\frac{3}{8}$ " DRILL OR PUNCH
HOLES AS SHOWN



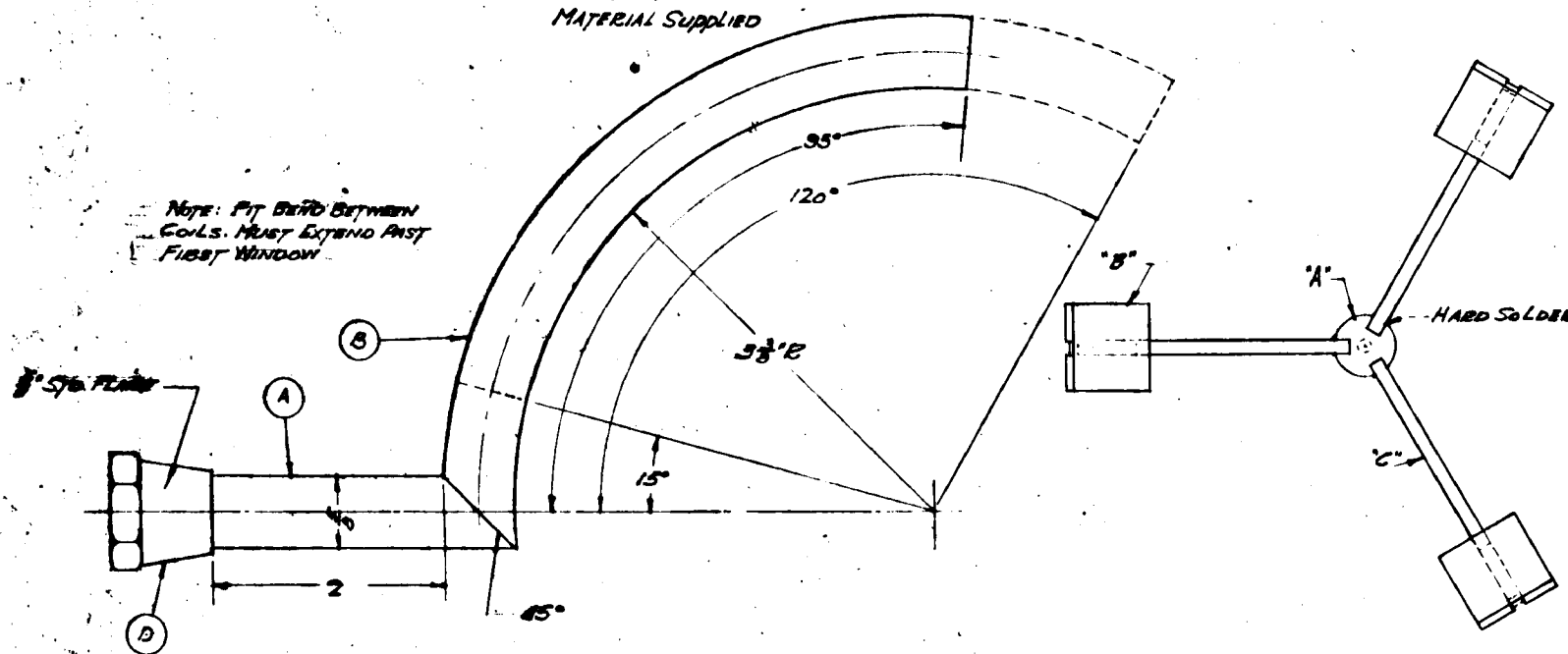
$\frac{3}{8}$ " DRILL OR PUNCH
HOLES AS SHOWN



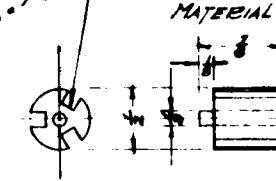
1510-B
Boiler Shield - 1 Req'd
to MIL TANTALUM SHEET
MATERIAL SUPPLIED

Extractor Shield - 1 Req'd
to MIL TANTALUM SHEET
MATERIAL SUPPLIED

NOTE: FIT GAPS BETWEEN
COILS. MUST EXTEND PAST
FIRST WINDOW



$\frac{3}{8}$ " x $\frac{1}{8}$ " Slots
5 @ 120°

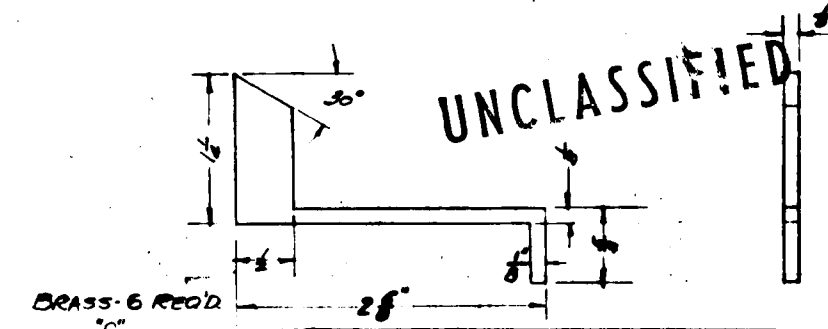


BRASS - 2 REQ'D
"A-1"



BRASS - 6 REQ'D
"B"

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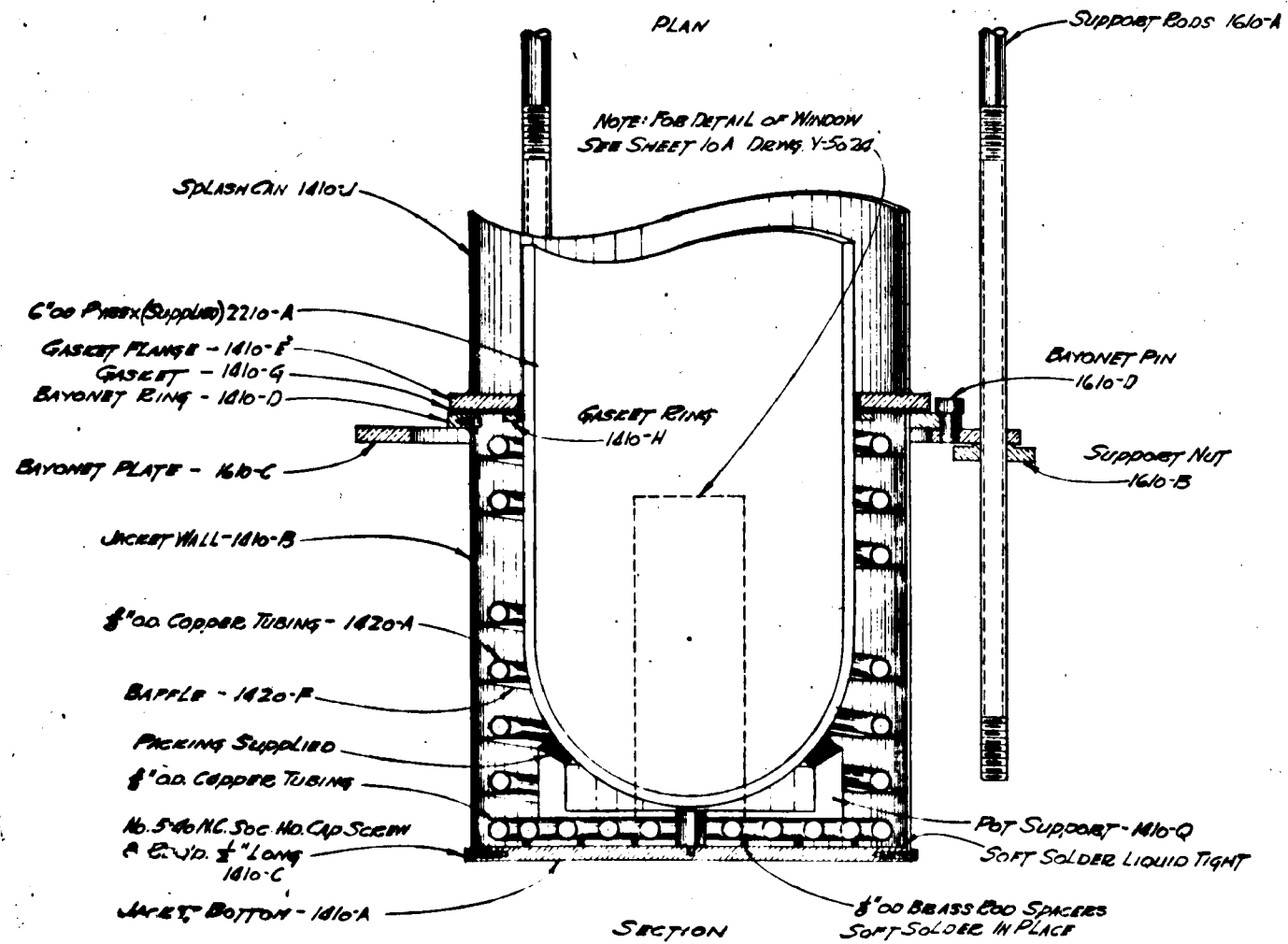
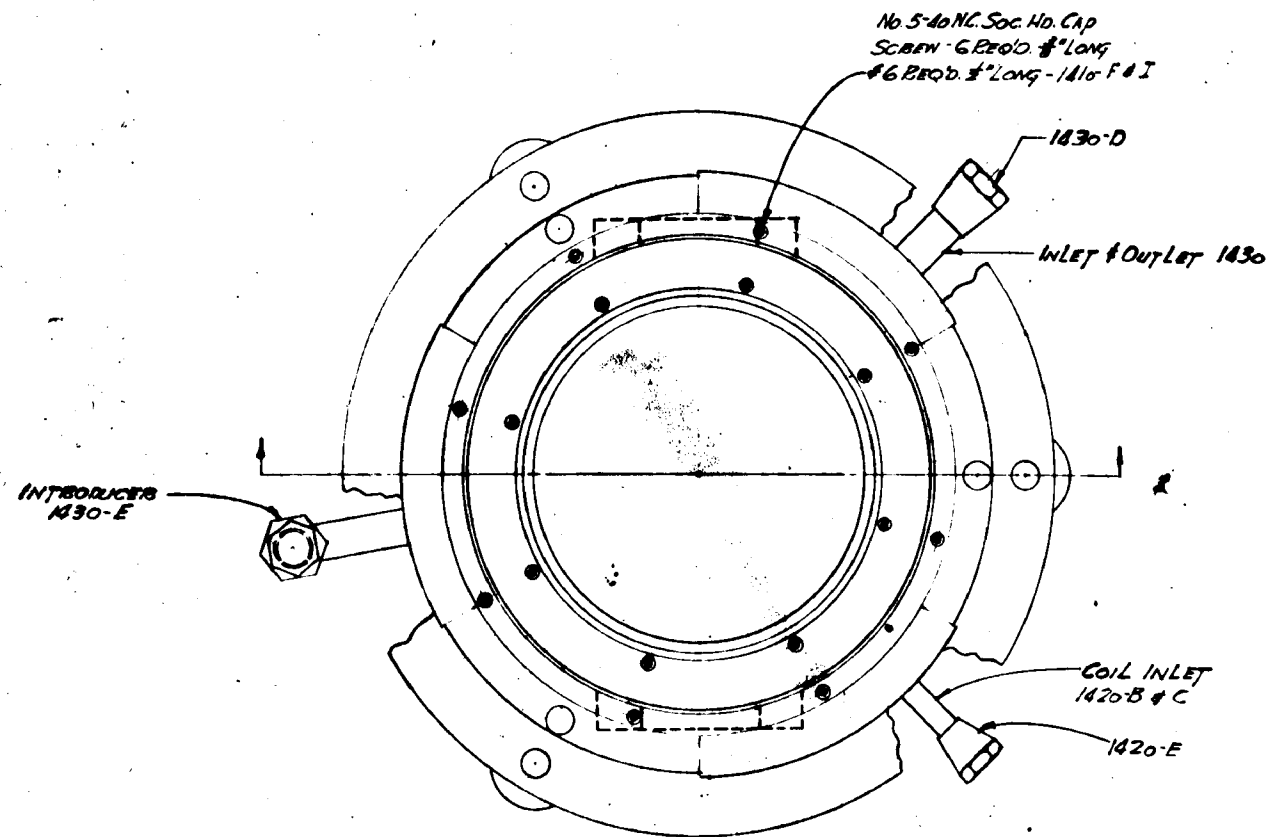
BRASS - 6 REQ'D
"C"

CIRCULATING INLETS & OUTLETS
 $\frac{3}{8}$ " O.D. COPPER TUBING
BEND 1 AT 120° PART 1430-B
" " " 95° " 1180-B
" 2 " 15° " 1130-C & 1430-C

POT SUPPORT
MAKE 2 - PARTS
1410-Q1 & 1110-P1

DESIGNED	ENG	4-4-45			
DRAWN	ELN	1-2-45			
LAYOUT OR CHECKED					
INITIALS	DATE	BY	CHANGED ITEM WAS	DATE	BY
CALC. WT.			ADDITIONAL SHEETS 15-28-38-48		SHEET
ACT. WT.			78-38-58-108-118-128-138-148		NO. 41
SUPERSEDES			158-168-178-188-198-208		TOTAL 20
SUPERSEDED BY			MODEL OR TITLE "P" APPARATUS	DRAWING NO. Y-5024	SCALE FULL

UNCLASSIFIED

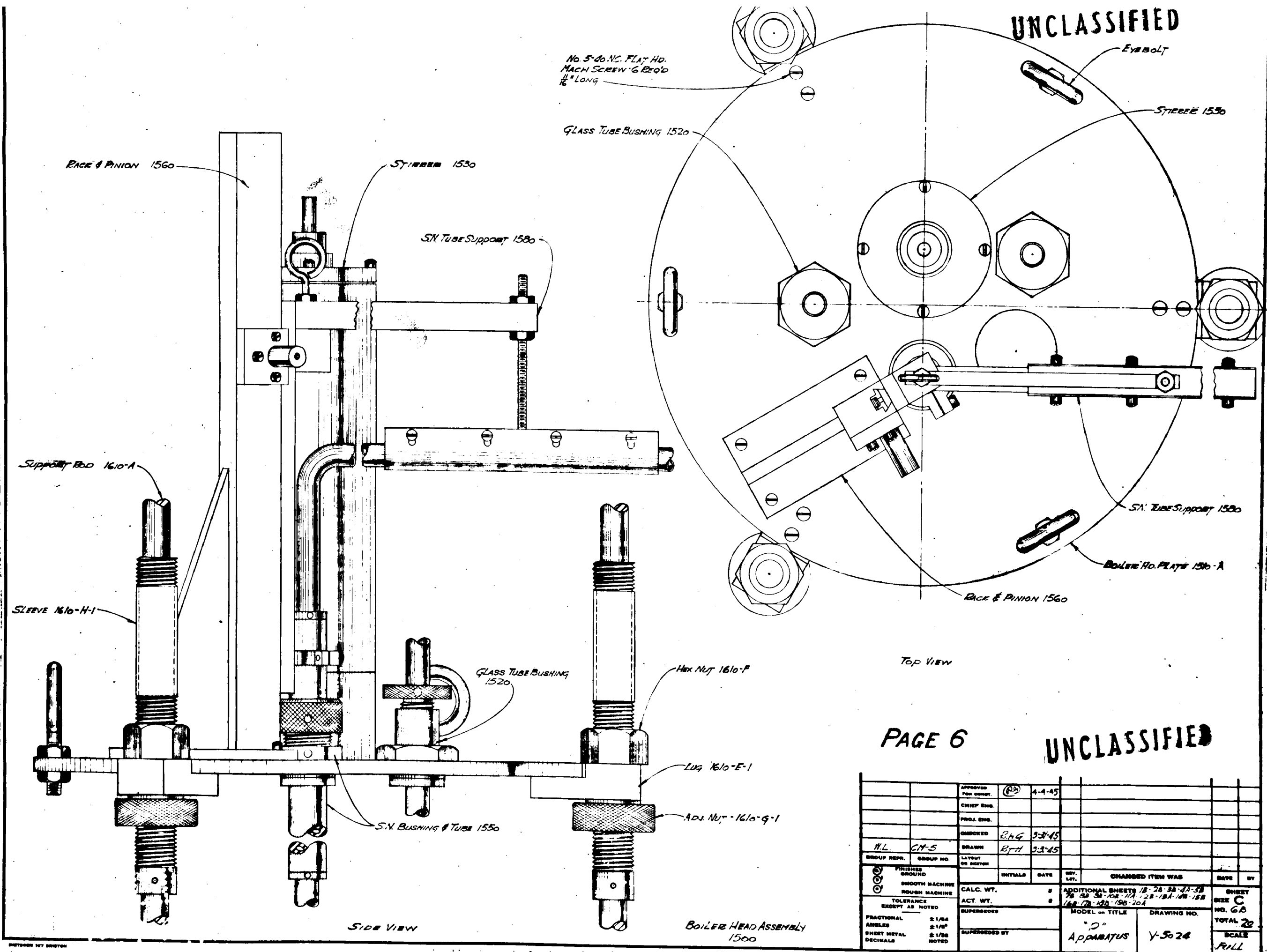


PAGE 5

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APPROVED FOR CONCT.	(P)	1-4-45							
GROUP DESIG.	CM-5								
DESIGNED	ENG	4-2-45							
DRAWN	RTA	1-2-45							
GROUP NO.									
REV.									
CHANGED ITEM WAS									
DATE									
BY									
FINISH									
GROUP									
SMOOTH MACHINE									
ROUGH MACHINE									
TOLERANCE									
EXCEPT AS NOTED									
FRACTIONAL	$\pm 1/64$								
ANGLES	$\pm 1/16$ "								
SHEET METAL	$\pm 1/32$								
DECIMALS	NOTED								
CALC. WT.									
ACT WT.									
SUPERSEDED									
SUPERSEDED BY									
MODEL OR TITLE	"P"								
DRAWING NO.	APPARATUS								
ADDITIONAL SHEETS	11-21-22-23-24-25								
	16A-17A-18A-19A-20A-21A-22A-23A-24A								
SHEET NO.	23A								
TOTAL	24								
SCALE	NAT								

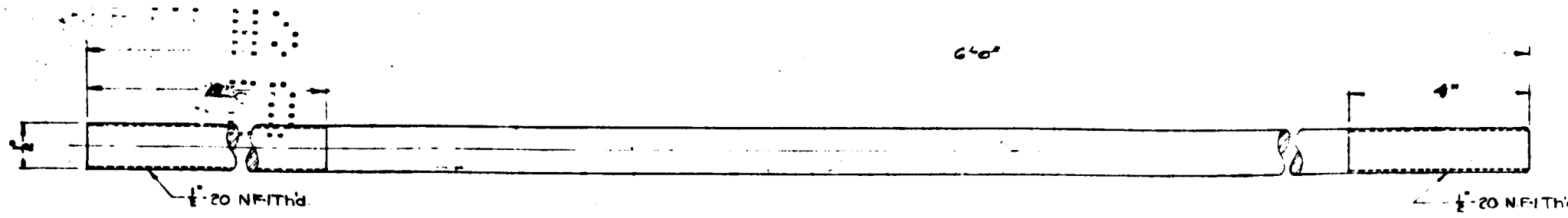
UNCLASSIFIED



PAGE 6

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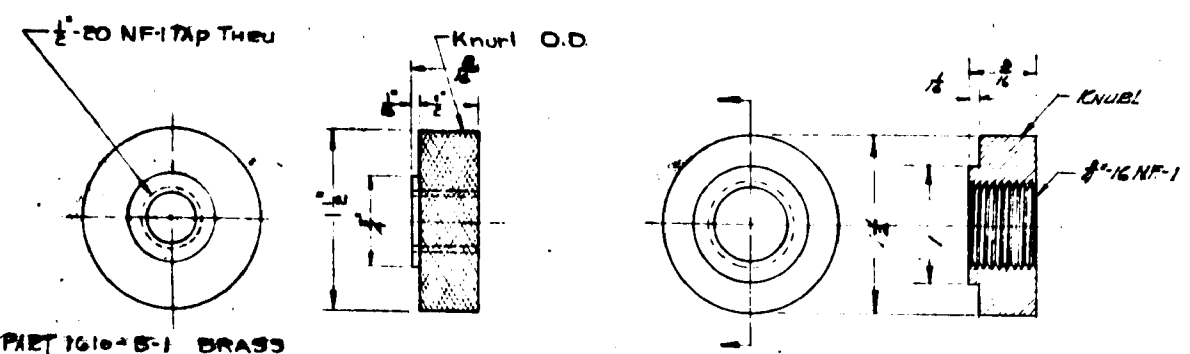
APPROVED FOR ORG.	(P)	4-4-45			
CHIEF ENG.					
PROJ. ENG.					
DESIGNED	E.H.G.	3-3-45			
DRAWN	B.H.	3-3-45			
GROUP REPR.	GROUP NO.	LAYOUT OR SKETCH	INITIALS	DATE	REV. LET.
FINISHED	GROUND	SMOOTH MACHINE	ROUGH MACHINE		
TOLERANCE EXCEPT AS NOTED					
FRACTIONAL ANGLES	2/64				
SHEET METAL DECIMALS	2/32				
ACT. WT.					
SUPERSEDED					
SUPERSEDED BY					
CHANGED ITEM WAS					
DATE					
BY					
ADDITIONAL SHEETS	1B-2A-3A-4A-5B				
	7B-8B-9B-10B-11A-12B-13A-14B-15B				
	16B-17B-18B-19B-20A				
MODEL OR TITLE	"D" APPARATUS				
DRAWING NO.	Y-5024				
SHEET NO. 6B					
TOTAL 20					
SCALE	FULL				



1610-J
 Note: Supply 6 Washers
 1 1/2" O.D. x 1/8" I.D.
 (Nominal Size 1 1/2")
 1610-I-1
 Note: Supply 6 Hex Nuts -
 Steel 1/2"-20 NF-1

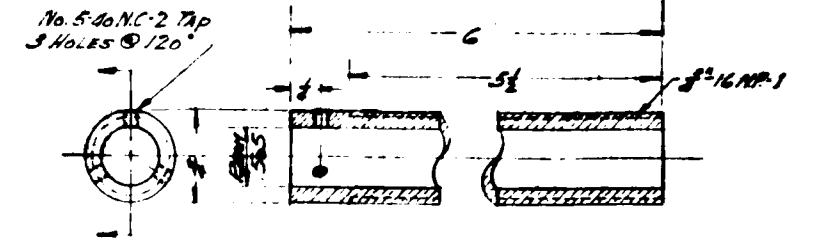
UNCLASSIFIED

PART 1610A-SUPPORT RODS 1/2" BESSEMERIZED STEEL
 MAKE THREE

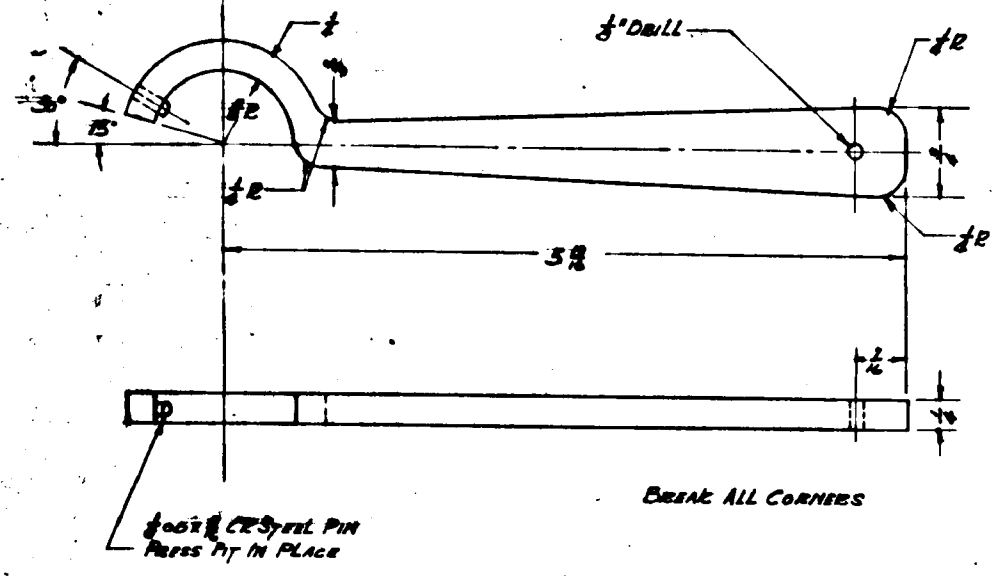


PART 1610-E-1 BRASS
 MAKE THREE
 SUPPORT NUT

HEAD PLATE ADJUSTMENT NUT
 BRASS - 6 Req'd. 1610-G-1 & 1310-E-1
 PROVIDE 6 HEX NUTS 1310-F



HEAD PLATE ADJUSTMENT SLEEVE
 BRASS TUBE - 3 Req'd
 LOOSE FIT ON PART 1610-A
 1610-N-1



1/4" Dia C.R. Steel PIN
 Press fit in place

C.R. Steel - 1 Req'd
 PART 3700

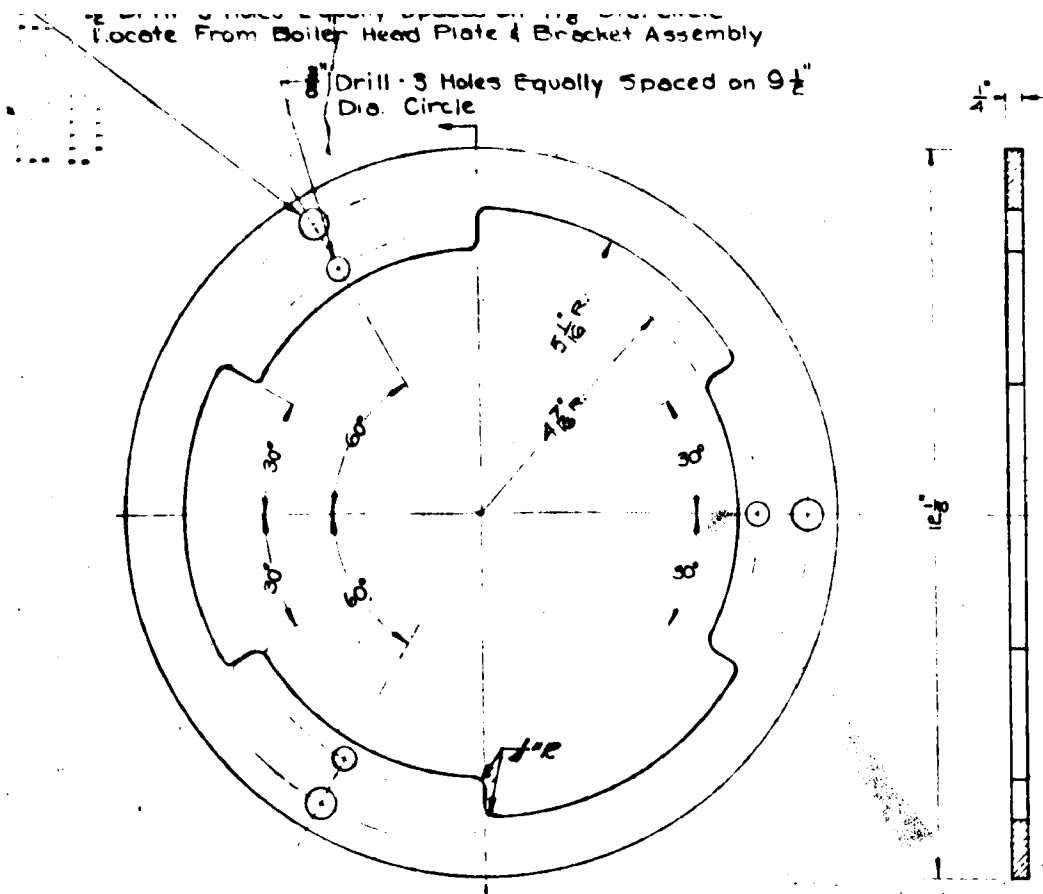
BREAK ALL CORNERS

PAGE 7

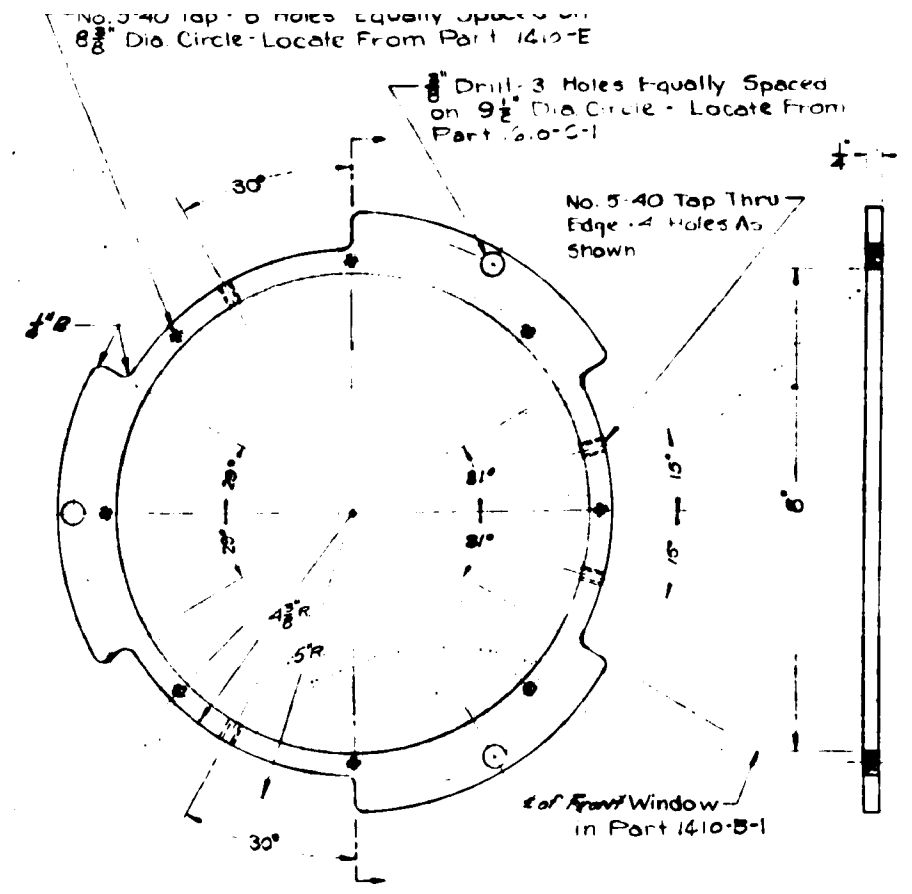
UNCLASSIFIED

APPROVED FOR CONST. (R) 4-4-45

DESIGNED	ENG	12-45			
DRAWN	BLN	12-44			
LAYOUT					
DATE	INITIALS	DATE	REV.	CHANGED ITEM WAS	DATE BY
CALC. WT.	ADDITIONAL SHEETS		SHEET		
ACT. WT.	67-83-38-103-114-128-134-148		NO. 7B		
SUPERSEDED	438-168-178-188-198-204		TOTAL 20		
SUPPLEMENTED BY	MODEL - TITLE	DRAWING NO.	SCALE		
	"P"	Y-5024	FULL		
	APPARATUS				

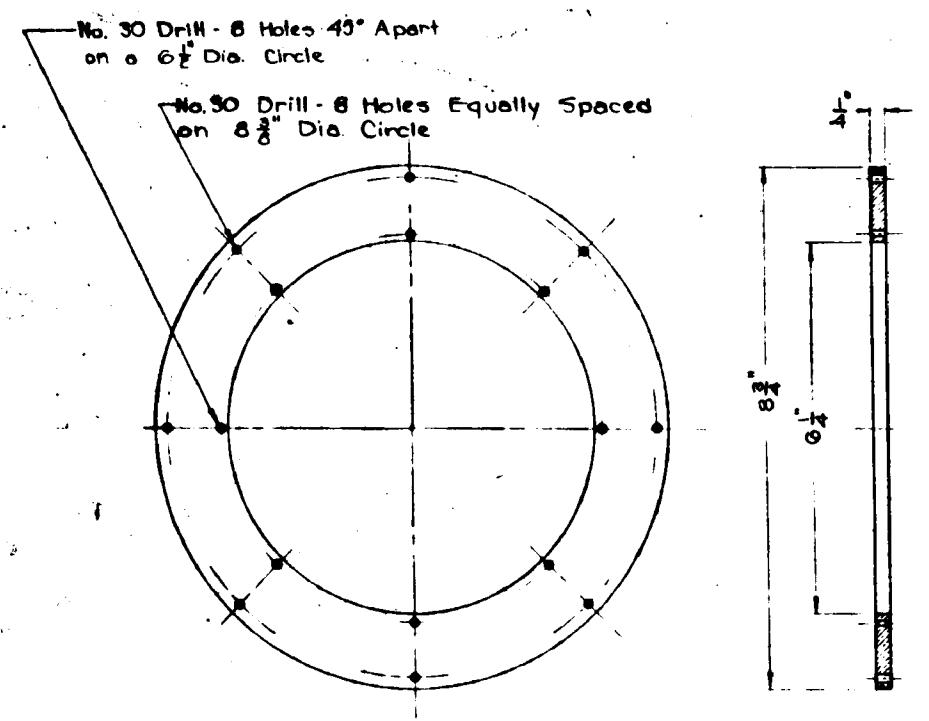


PART 1410-D BRASS - MAKE ONE - BAYONET PLATE



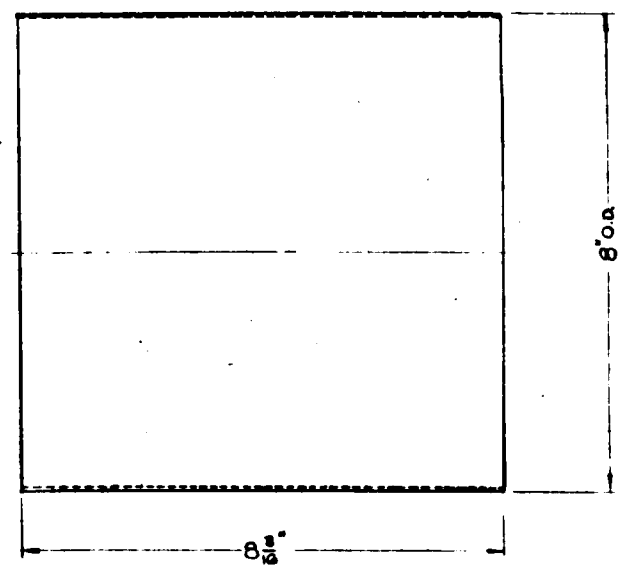
PART 1410-D BAYONET RING - BRASS - MAKE ONE - Soft Solder To Part 1410-B-1

UNCLASSIFIED

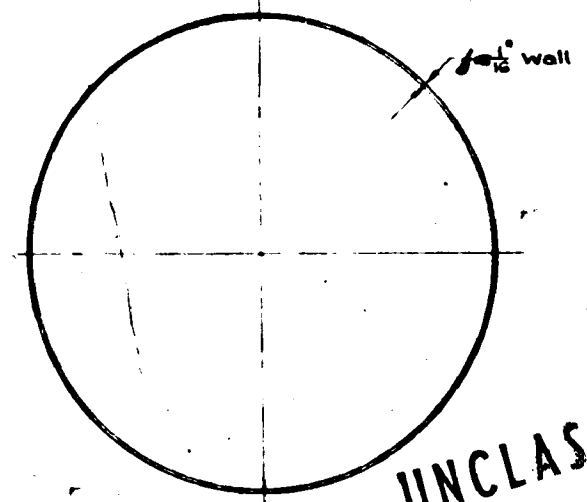


PART 1410-E GASKET FLANGE - BRASS - MAKE ONE - Soft Solder To Part 1410-J

1410-E - MODIFIED GASKET CUT TO PATTERN OF PART 1410-E EXCEPT I.D. TO BE 6"

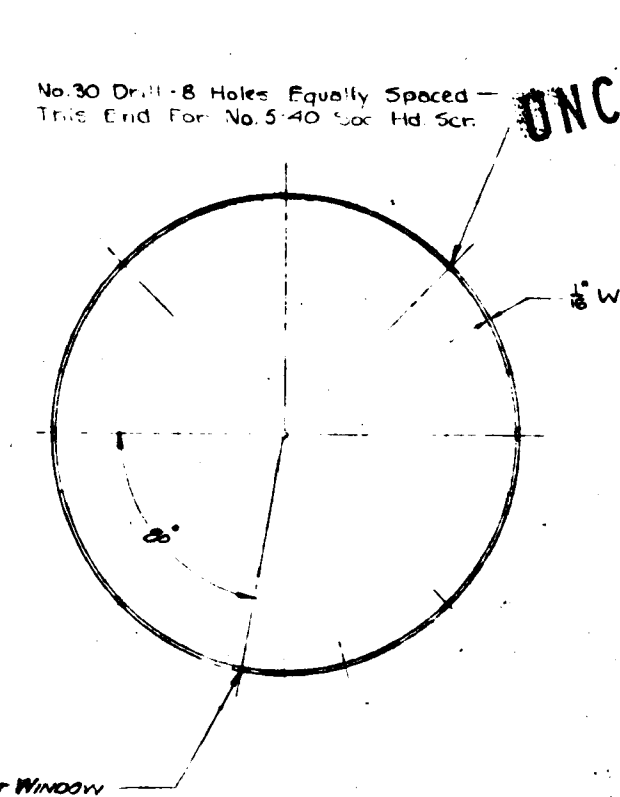
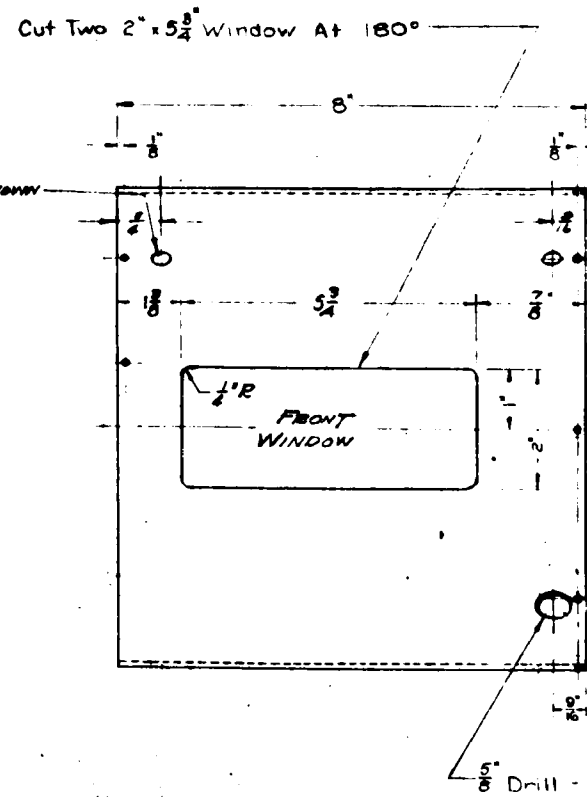
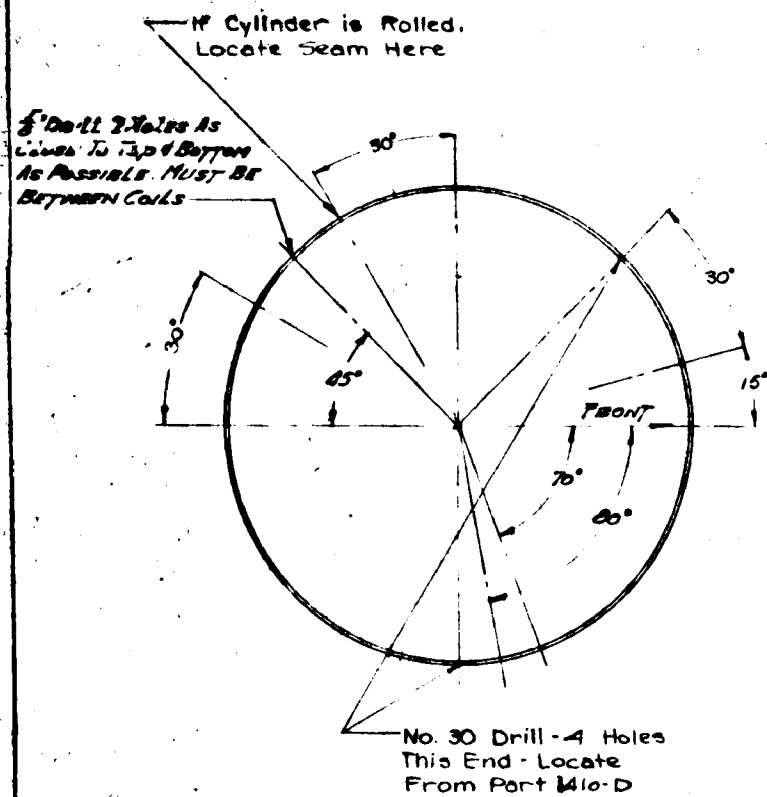


PART 1410-J SPLASH CAN - MAKE ONE - Note: This Part Can Be Rolled and Silver-Soldered From 1/16 Brass Sheet



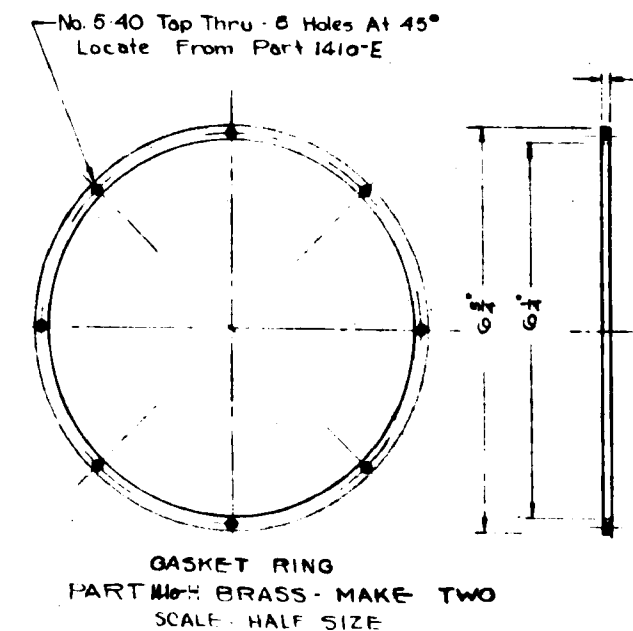
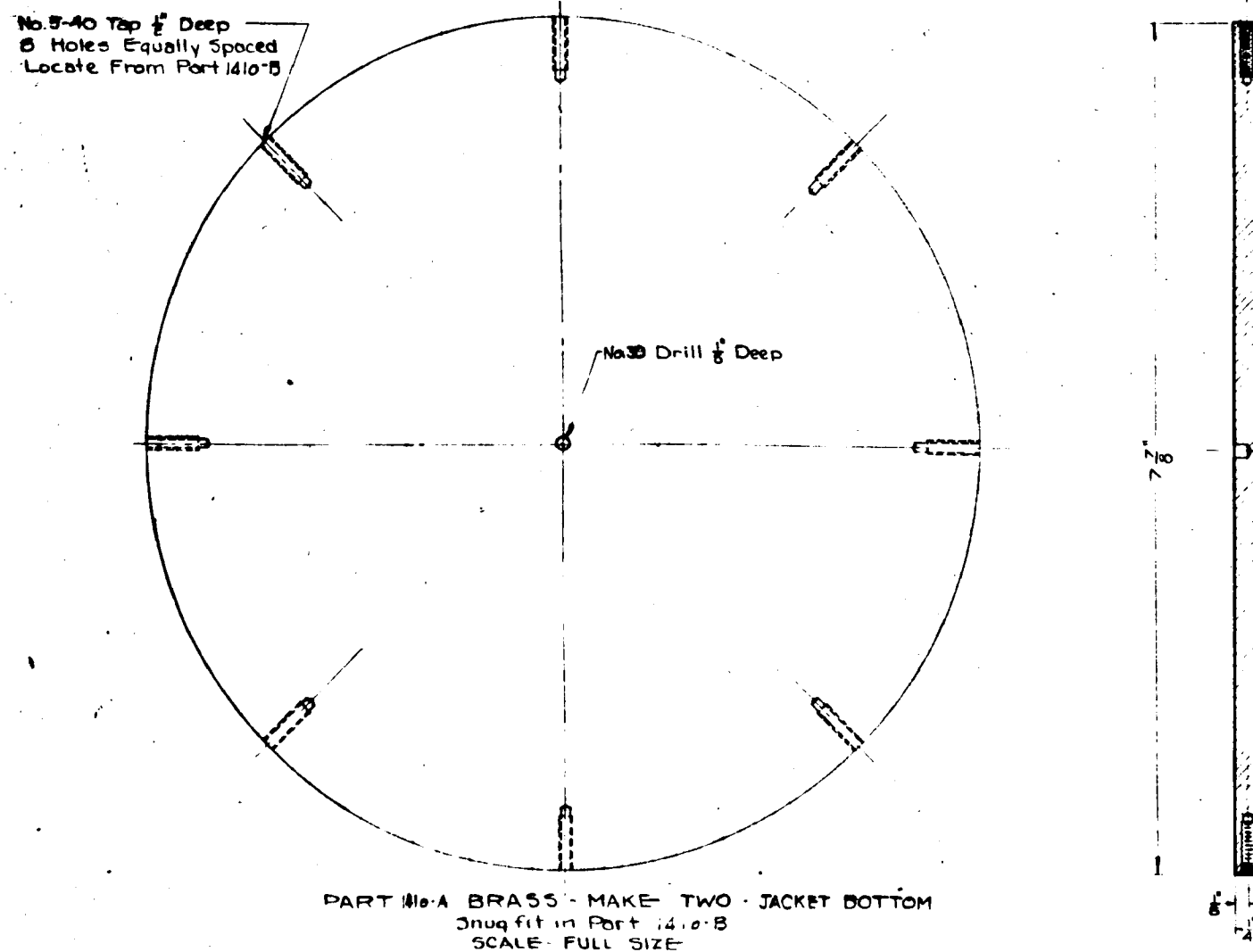
UNCLASSIFIED

DESIGNED	RHG 8-11-45				
DRAWN	BLW 7-21-45				
CHECKED					
APPROVED					
CALC. WT.		ADDITIONAL SHEETS	28-29-31-33	SHEET	
ACT. WT.			28-28-33-33-33-33-33-33	NO. 83	
SUPPLEMENT			153-748-775-148-150-204	TOTAL 20	
SUPPLEMENT BY		MODEL - TITLE	DRAWING NO.	SCALE	
		P	Y-5028	HALF	
		APPARATUS			



UNCLASSIFIED

JACKET WALL - PART 1410-B - BRASS TUBING - MAKE ONE Note: This Part Can Be Rolled and Silver-Soldered From 1/16" Brass Sheet - SCALE - HALF SIZE



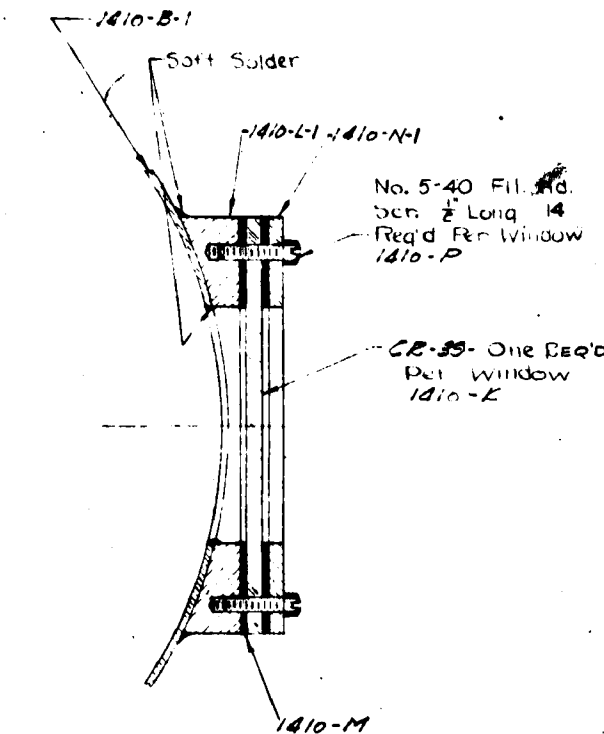
UNCLASSIFIED

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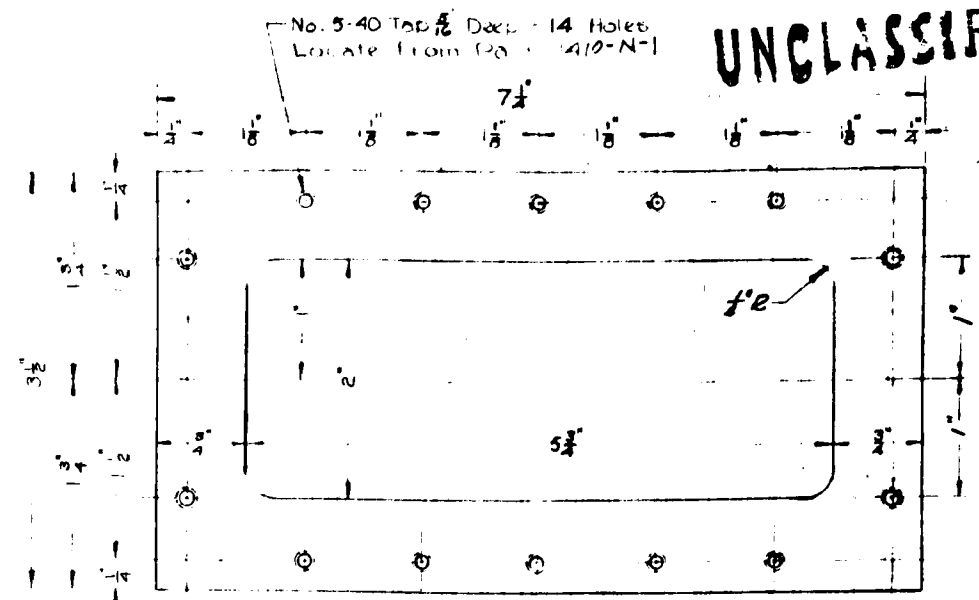
NOTE: PARTS 1410-A & 1410-H SAME FOR EXTRACTOR 1100
APPROVED FOR CONST. (P) 4-1-45

DESIGNED	BNG	3-1-45				
DRAWN	BLN	3-23-45				
LAYOUT OR CHECKED						
	INITIALS	DATE	REV. NO.	CHANGED ITEM	DATE	BY
CALC. WT.				ADDITIONAL SHEETS: 1-21-31-41-51 61-71-81-91-101-111-121-131-141-151		SHEET NO. 281
ACT. WT.				161-171-181-191-201-211-221-231		TOTAL 28
SUPERSEDED				MODEL OR TITLE		SCALE
SUPERSEDED BY				"P"	Y-5024	As Mfg
				APPARATUS		

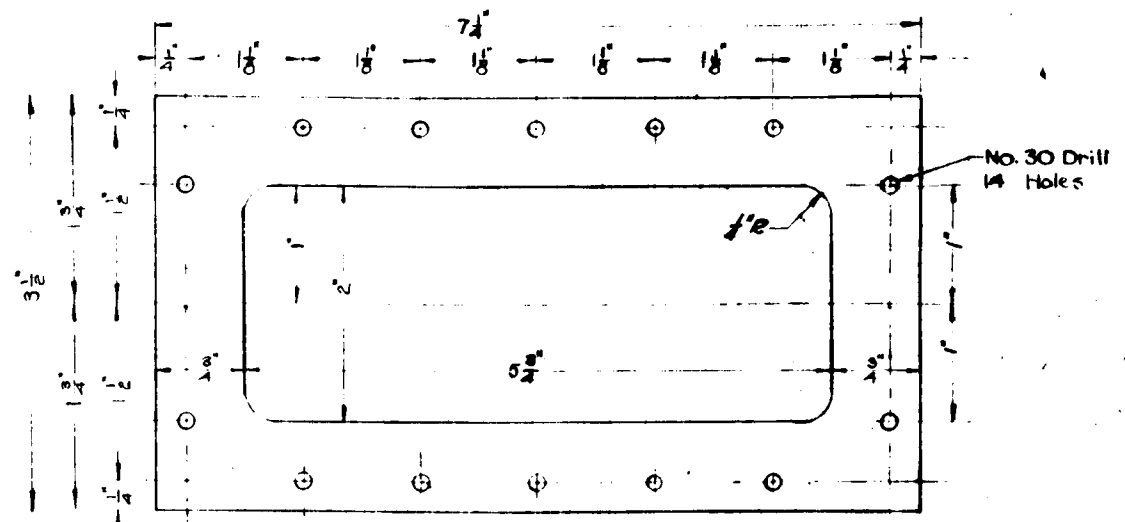
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WINDOW ASSEMBLY
Top Sectional View - Make Two

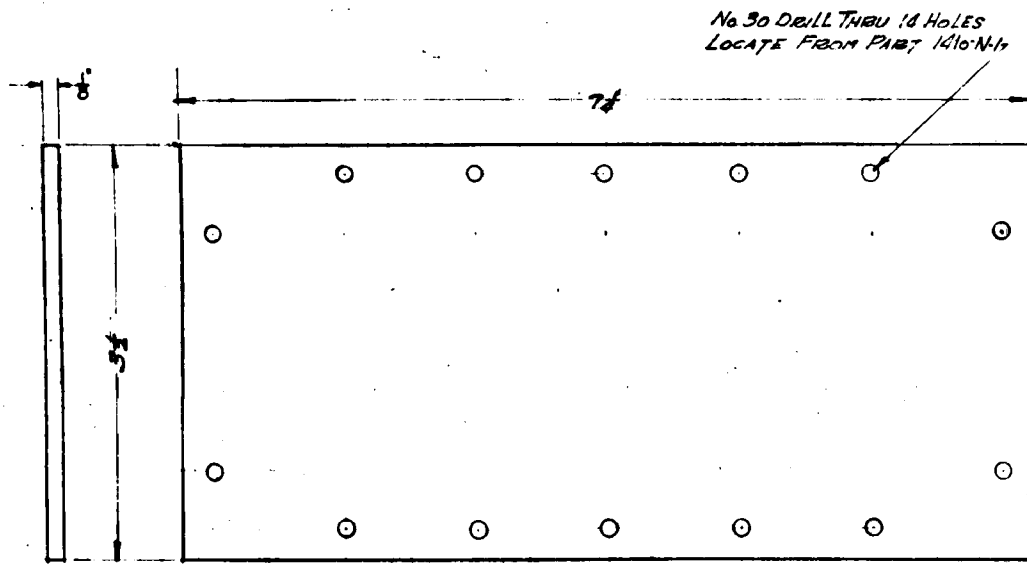


PART 1410-L1 BRASS - MAKE TWO WINDOW FRAME



PART 1410-N1 BRASS - MAKE TWO WINDOW PLATE

NOTE: MAKE 3 NEOPRENE GASKETS OF 1/8" SHEET TO THE SAME PATTERN AS PART 1410-N1 Part No. 1410-M



CB-39 WINDOW TWO REQ'D PART 1410-K MATERIAL SUPPLIED

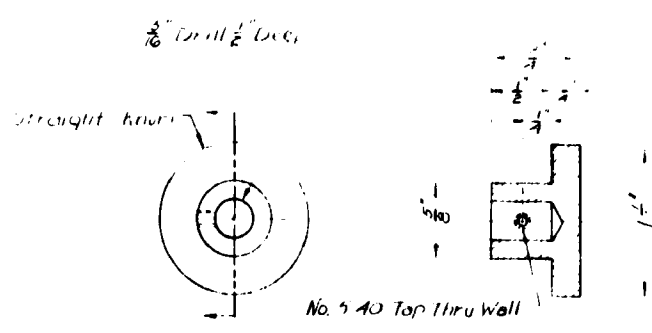
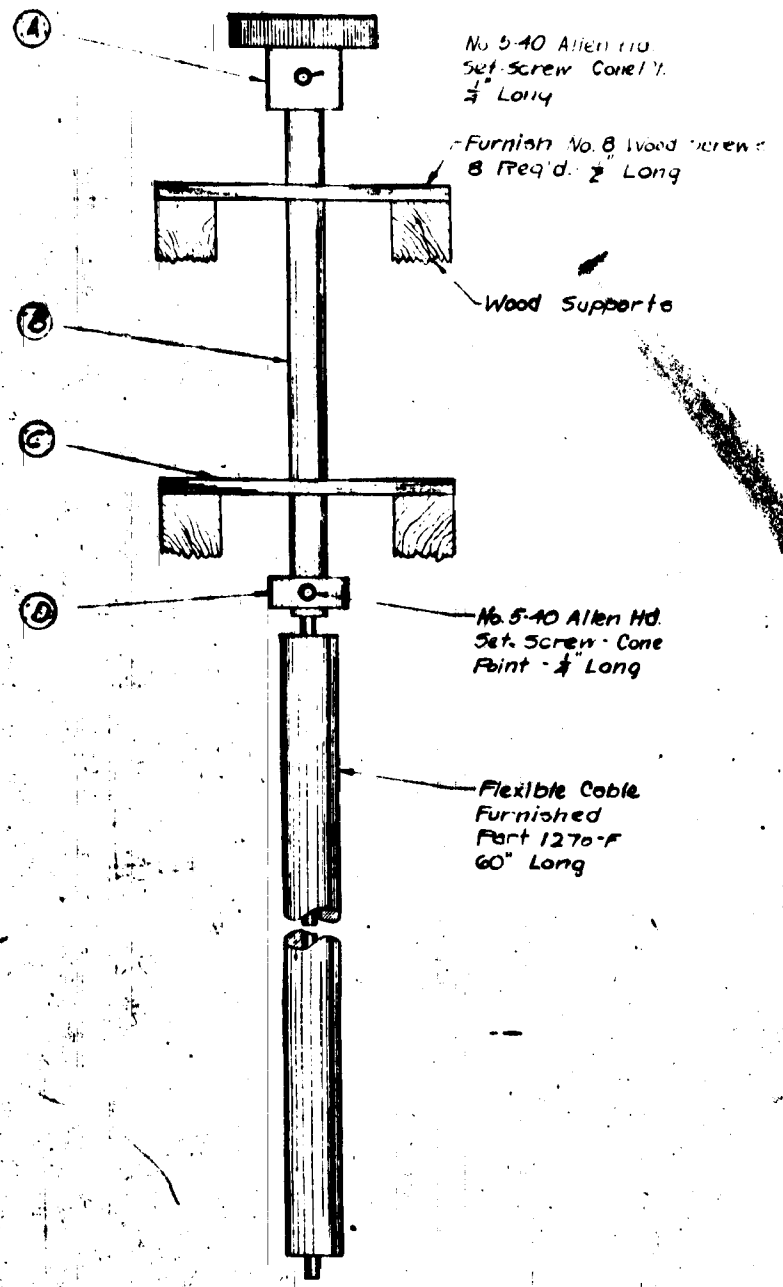
PAGE 10

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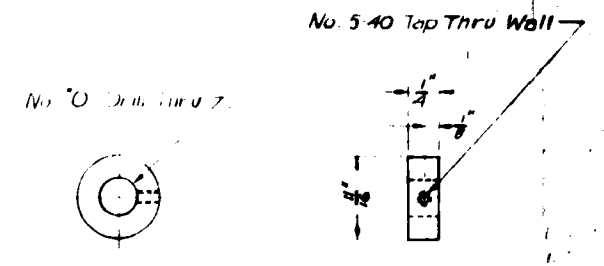
DESIGNED BY	B.G. 1245	DATE		REV.		CHANGED ITEM WAS	DATE	BY
DRAWN BY	ELM. 2270							
CHECKED BY								
CALC. WT.						ADDITIONAL SHEETS 18 25 38 41 55		SHEET NO. 10
ACT. WT.						26 76 85 95 111 125 134 148		NO. 108
SUPPLIER						150 168 175 188 198 204		TOTAL 20
APPROVED BY						MODEL OR TITLE	DRAWING NO.	SCALE
						"D" APPARATUS	Y-5024	FULL

APPROVED FOR CONST. 4-4-45

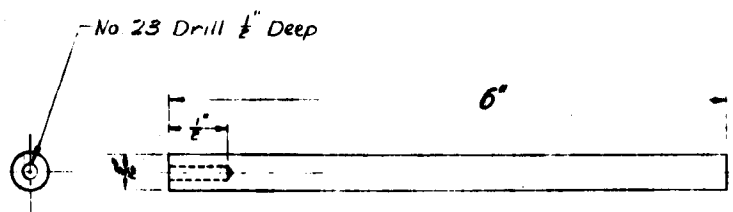
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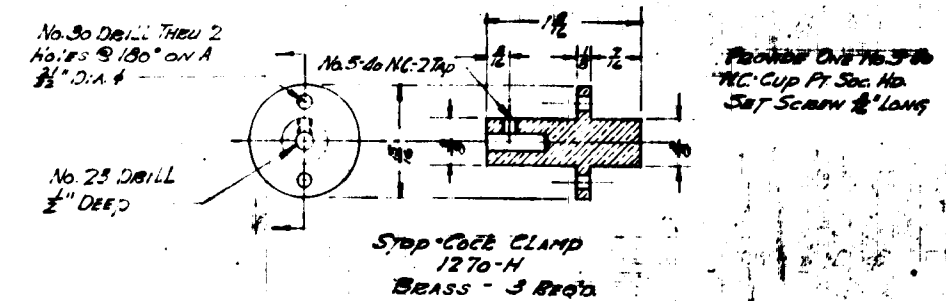
KNOB
Brass - Make 5
PART 1270-A



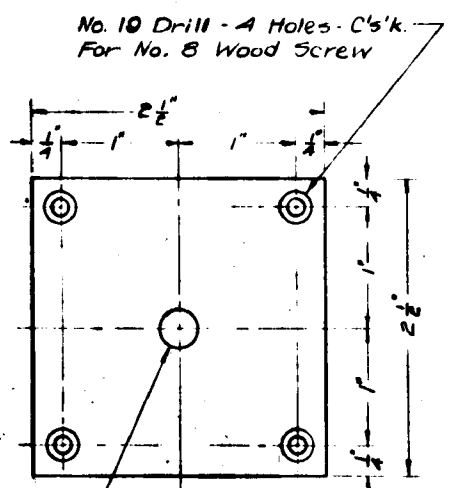
COLLAR
Brass - Make 5
PART 1270-D



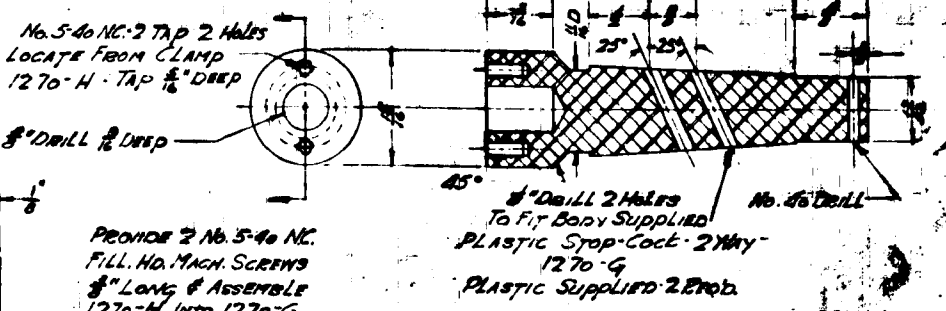
PART 1270-B
KNOB ROD
1/16\"/>



STOP-COCK CLAMP
1270-H
BRASS - 3 BRQ'S



PART 1270-C
BEARING PLATE
Brass - Make 10



PROVIDE 2 No. 5-40 NC. FILL. HO. MACH. SCREWS 1/8\"/>

NOTE: TAPER TO FIT 1270-L & 1270-K
THIS PART TO BE SUBSTITUTED FOR GLASS STOP-COCK PLUG IN 1270-L & 1270-K

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NOTE: PART 1270-J SIMILAR TO 1270-G EXCEPT 1270-J HAS ONLY ONE 1/8\"/>

PAGE II

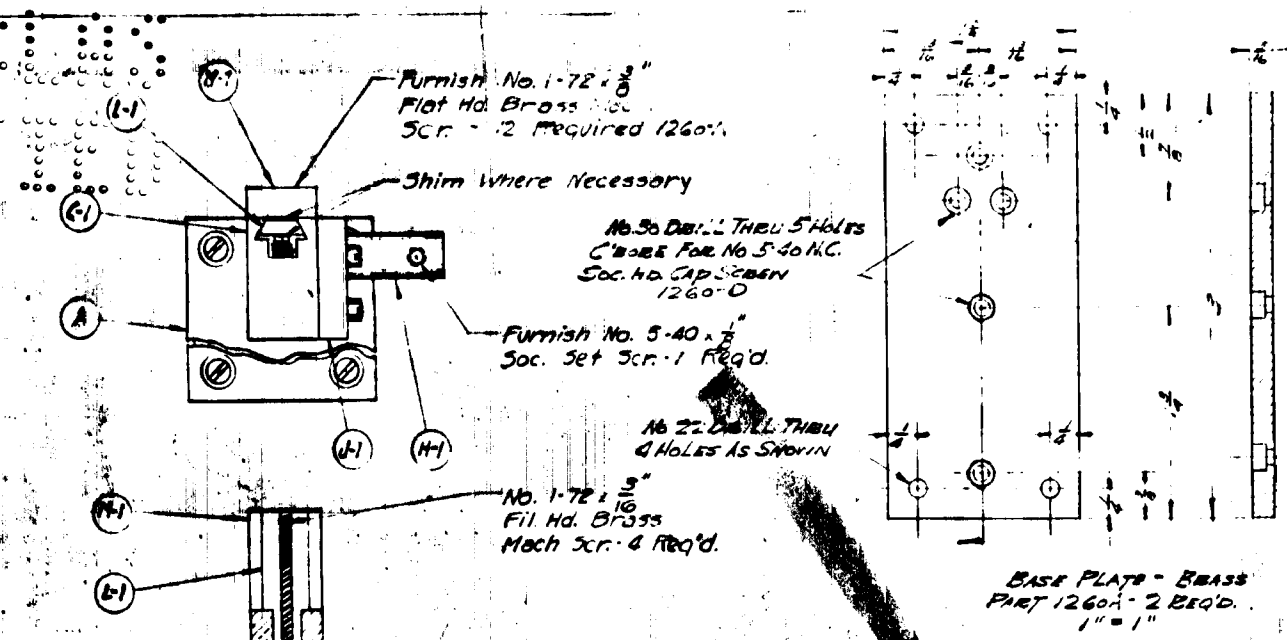
ASSEMBLY VIEW
REMOTE CONTROL
PART 1270
MAKE 5

APPROVED FOR CONST. (P) 4-4-65

DESIGNED	BY	DATE	CHANGED ITEM WAS	DATE	BY
DRAWN	BY	DATE			
LAYOUT	BY	DATE			
INITIALS	DATE	REV.			
CALC. WT.		ADDITIONAL SHEETS	13-28-38-41-58		SHEET
ACT. WT.			68-78-88-98-108		NO. 11A
SUPERSEDES		MODEL OR TITLE		DRAWING NO.	TOTAL 20
SUPERSEDES BY				4-50-24	SCALE
					FULL

UNCLASSIFIED

Drill & Ream
3790 At Assembly
with Part C



No. 30 Drill Thru Ream No. 20 Tap - Pin Reamer for Pinion Shaft Tight Press Fit Pinion Shaft $\frac{1}{8}$ " into Tapered Hole

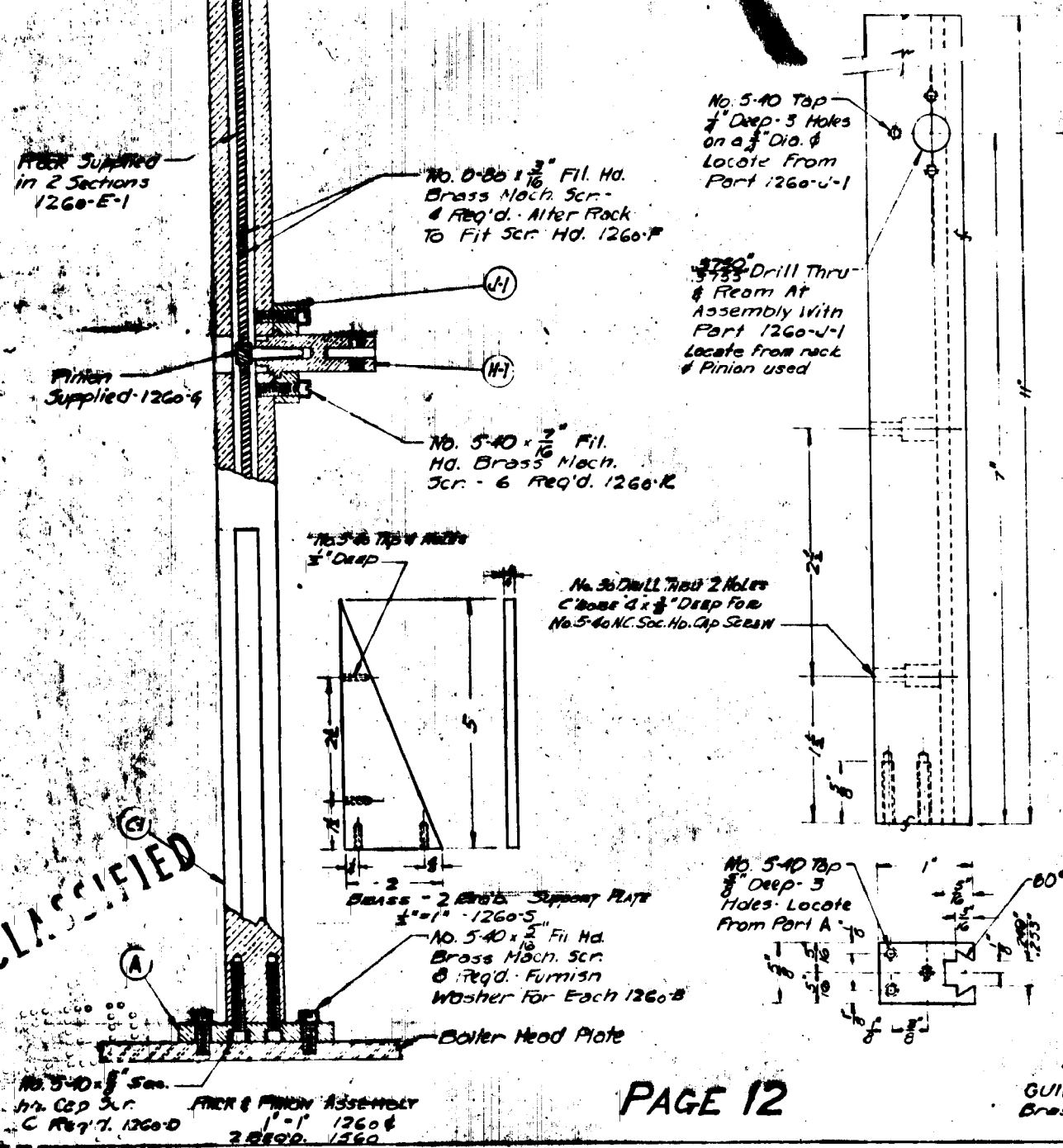
No. 5-40 Tap Thru 1 Hole 1260-2-1

No. 30 Drill 3 Holes on $3\frac{1}{2}$ " Dia. ϕ

Wire $\frac{1}{2}$ " Dia - .003" Deep
DETERMINE "B" FROM RACK & PINION USED

1260-A-1 PINION SHAFT Brass - 2 Req'd.

1260-U-1 BEARING PLATE Brass - 2 Req'd.



No. 1-72 Tap Thru - E Holes - Locate From Part E

No. 5-40 Tap Thru 2 Holes

No. 5-40 Tap $\frac{1}{2}$ " Deep

Drills - 2 Req'd
Screw To 1260-M
SN TUBE SUPPORT 1260-U-1

No. 40 Drill - 6 Holes C'k For 1-72 Flat Hd. Screw

No. 5-40 N.C. Tap 2 Holes

No. 5-40 N.C. Tap $\frac{1}{2}$ " Deep

No. 30 Drill $\frac{1}{2}$ " Deep

SN SLIP BRACKET - BRASS Part No. 1260-P - 2 Req'd. 1" x 1"

BRASS SOLID TO PART M AT PROPER HEIGHT

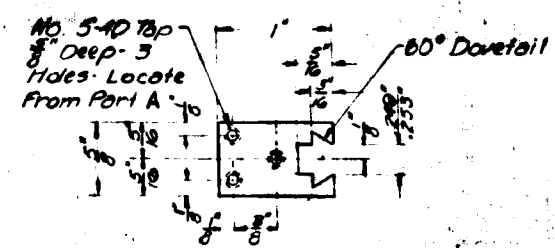
LOCATION OF PART 1260-P

BRASS - 2 BRASS SUPPORT PLATE 1260-J BRASS - 2 Req'd.

No. 1-72 Tap 4 Holes - Locate From Rack Sections

No. 30 Drill Thru C'k For No. 5-40 N.C. Flat Hd. Mach. Screw

No. 30 Drill Thru C'k For No. 5-40 N.C. Flat Hd. Mach. Screw



1260-L-1 GUIDE PLATE Brass - 2 Req'd.

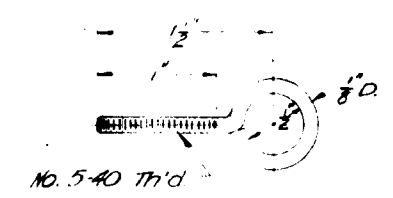
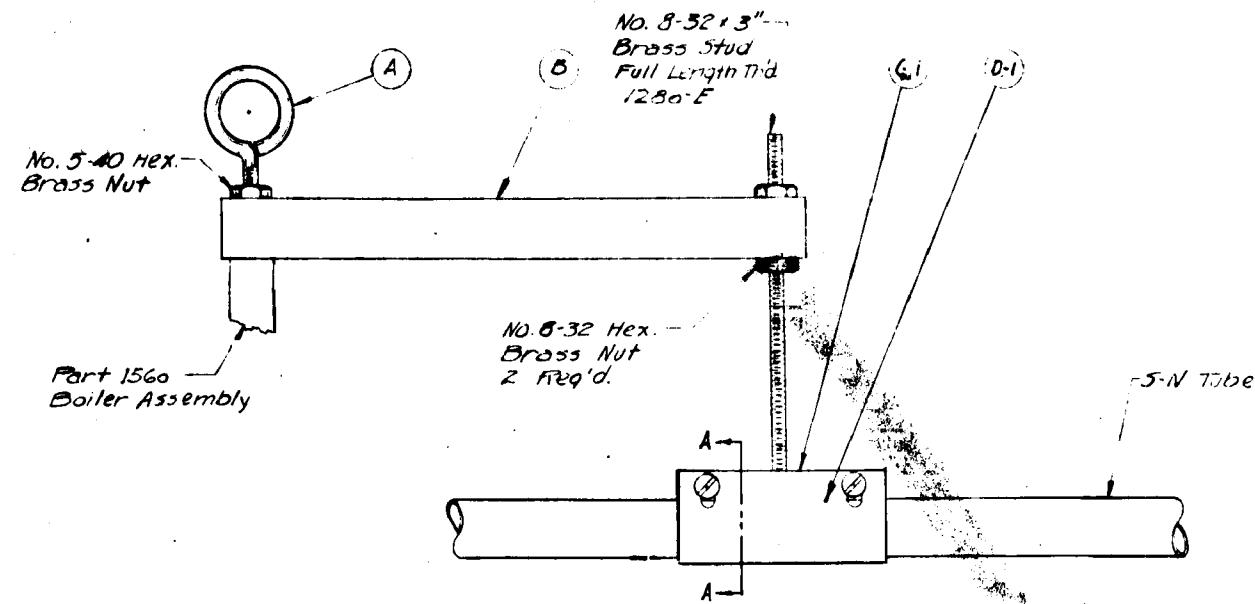
1260-C-1 GUIDE BAR Brass - 2 Req'd.

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Approved For Const. 4-9-45

DESIGNED	CHG 1-45				
DRAWN	CHN 1-45				
CHECKED					
INITIALS	DATE	APP. LIST	CHANGED ITEM WAS	DATE	BY
CALC. WT.		ADDITIONAL SHEETS	1-28-45 41-38		SHEET
ACT. WT.			1-28-45 41-38		NO. 12 B
SUBMITTED		MODEL OR TITLE	1-28-45 41-38		TOTAL 20
APPROVED BY		"P" APPARATUS	Y-5024		SCALE
					FULL

UNCLASSIFIED



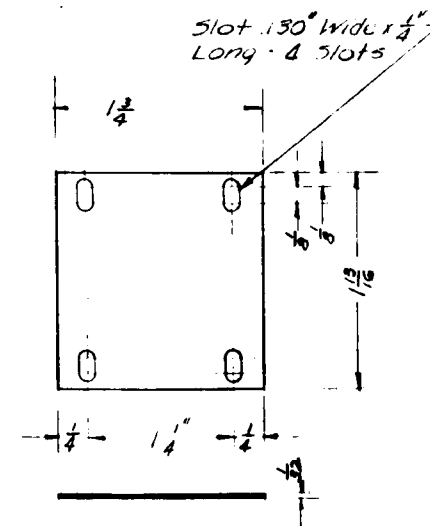
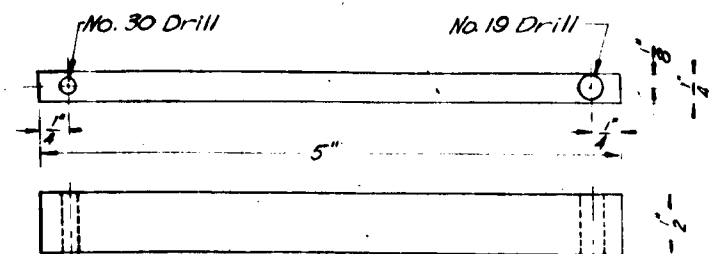
1280-A
EYE-BOLT & NUT
Mat'l: Brass & Req'd.

No. 5-40 Fil. Hd. Scr.
3/4" Long - 4 Req'd.
1280-F

REMOVED SECTION
A-A

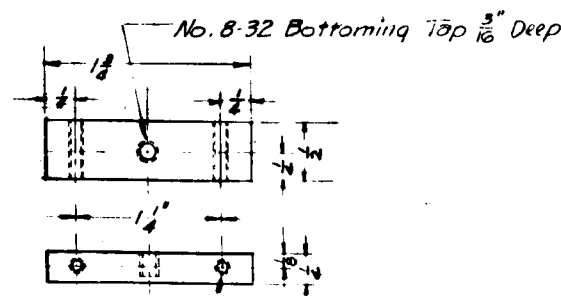
1280
ASSEMBLY
1" x 1"
2 Req'd.

FRONT VIEW
SN TUBE SUPPORT
1280



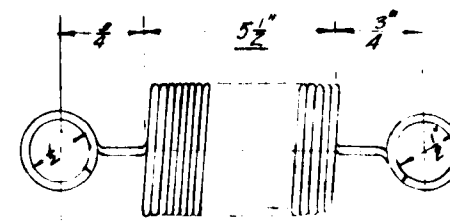
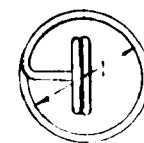
1280-B
ARM.
Mat'l. - Brass - 2 Req'd.

1280-D-1
CLAMP
Mat'l. - Brass - 2 Req'd.
Bend Over 1/2" Dia. Mandrel
As Shown By Section A-A



1280-C-1
BRACKET
Mat'l. - Brass - 2 Req'd.

No. 5-40 Tap Thru - 2 Holes



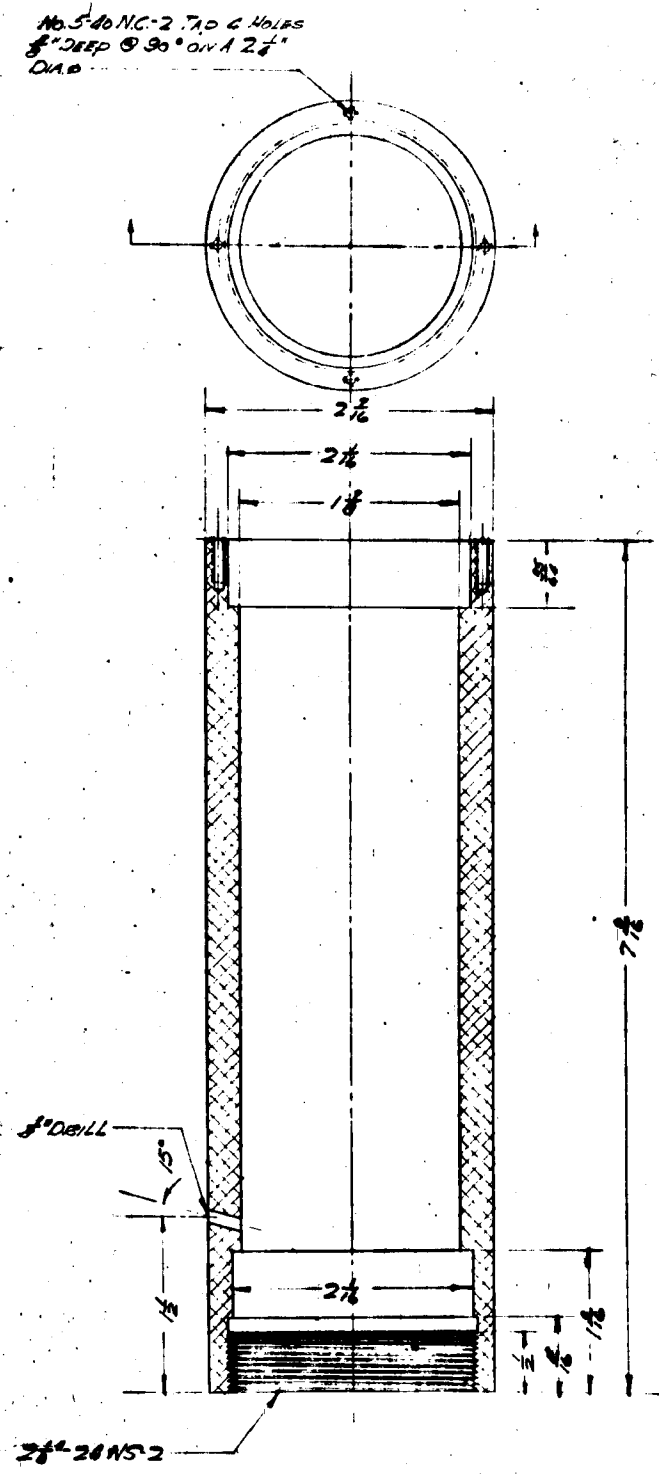
SPRING - .0625 DIA - CLOSE WOUND
PART 1260-B
2 Req'd.

APPROVED FOR CONST. 4-4-45

PAGE 13
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DESIGNED	BHG	9-14-45			
DRAWN	PLM	2-26-48			
LAYOUT OR CHECK					
	INITIALS	DATE	REV. LET.	CHANGED ITEM WAS	DATE BY
CALC. WT.				ADDITIONAL SHEETS 1280-D-1, 1280-D-2, 1280-D-3, 1280-D-4, 1280-D-5, 1280-D-6, 1280-D-7, 1280-D-8, 1280-D-9, 1280-D-10, 1280-D-11, 1280-D-12, 1280-D-13, 1280-D-14, 1280-D-15, 1280-D-16, 1280-D-17, 1280-D-18, 1280-D-19, 1280-D-20	SHEET SIZE C
ACT. WT.					NO. 13A
SUPERSEDES					TOTAL 20
SUPERSEDED BY					SCALE FULL

UNCLASSIFIED

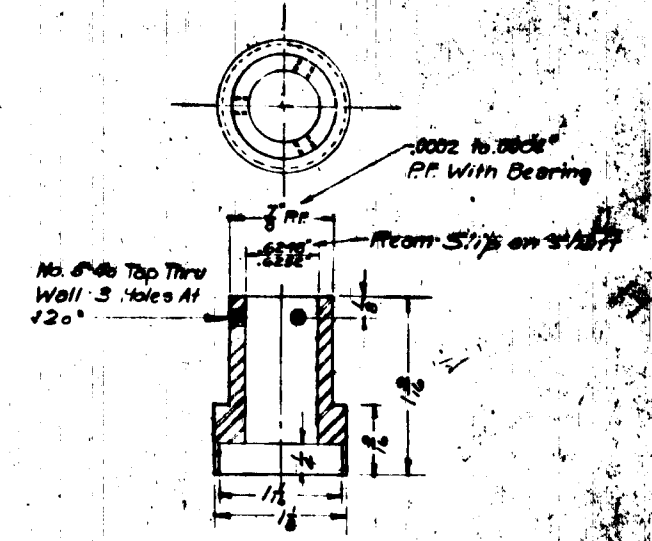


No. 5-40 NC-2 Tap & Holes
3/4" Deep @ 90° on 1 2 1/4"
DIA.

3/8" Drill

2 1/2" 20 NS-2

BEARING SHELL - DURAL
Part No. 1230-E1-2 Rev'd
1" = 1"



.0002 to .0004"
PF With Bearing

ream Slip on 3/16"

No. 6-48 Top Thru
Wall 3 Holes At
120°

UNCLASSIFIED

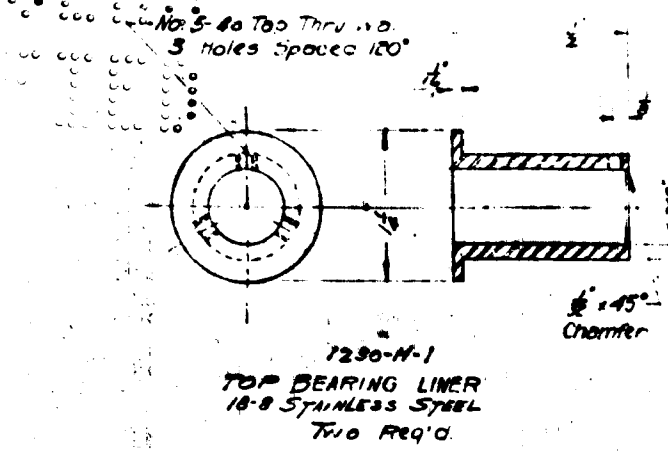
1230-E1
BEARING LINER
18-8 STAINLESS STEEL
Two Proj's

PAGE 14

DESIGNED BY	BNG	DATE		REV. BY		DATE	
DRAWN BY	RLW	DATE		CHANGED ITEM WAS		DATE	
CALC. WT.				ADDITIONAL SHEETS	28-38-41-38		
ACT. WT.					48-78-98-108-114-128-134		SHEET NO. 14B
SUPERSEDES				MODEL OR TITLE	"P"	DRAWING NO.	TOTAL 20
SUPERSEDED BY				APPARATUS		Y-5024	SCALE FULL

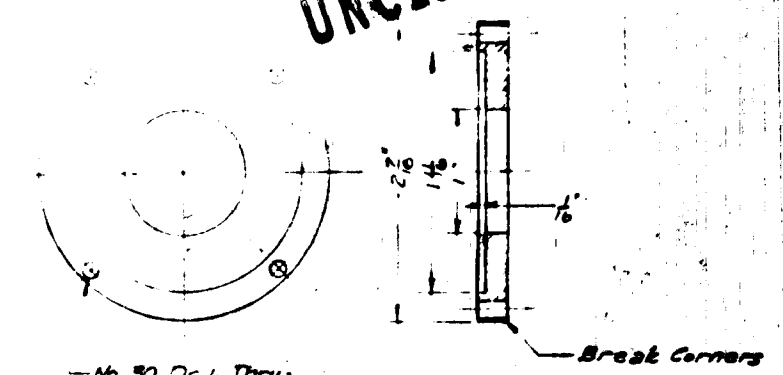
APPROVED FOR CONST. 4-4-45

UNCLASSIFIED

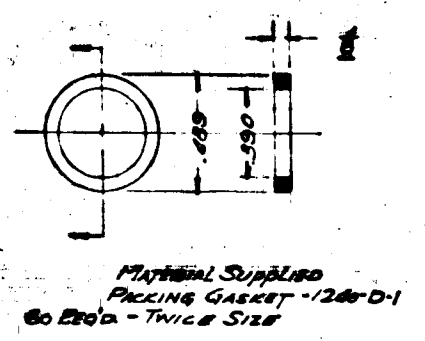
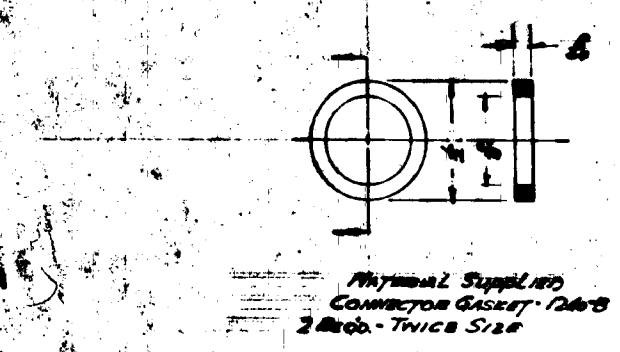
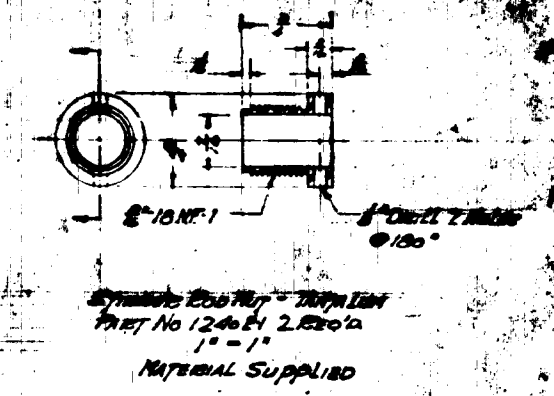
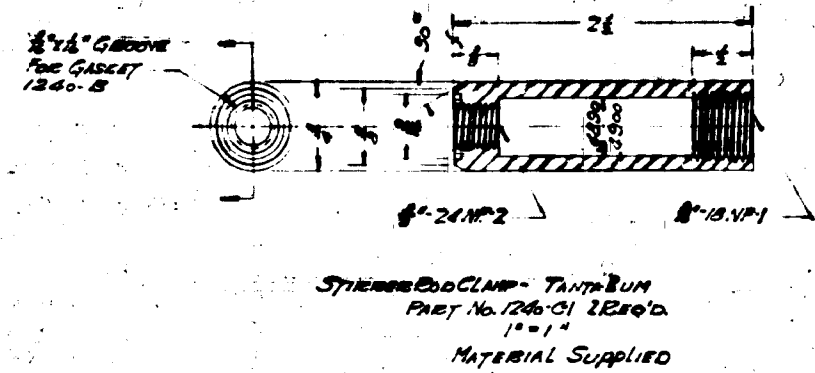
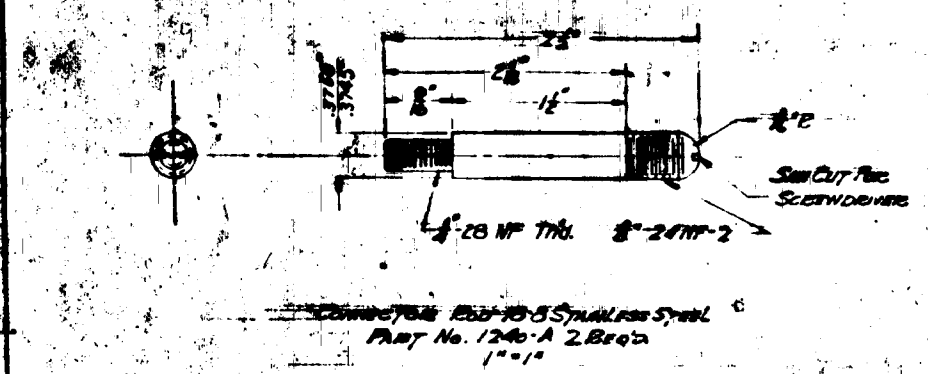
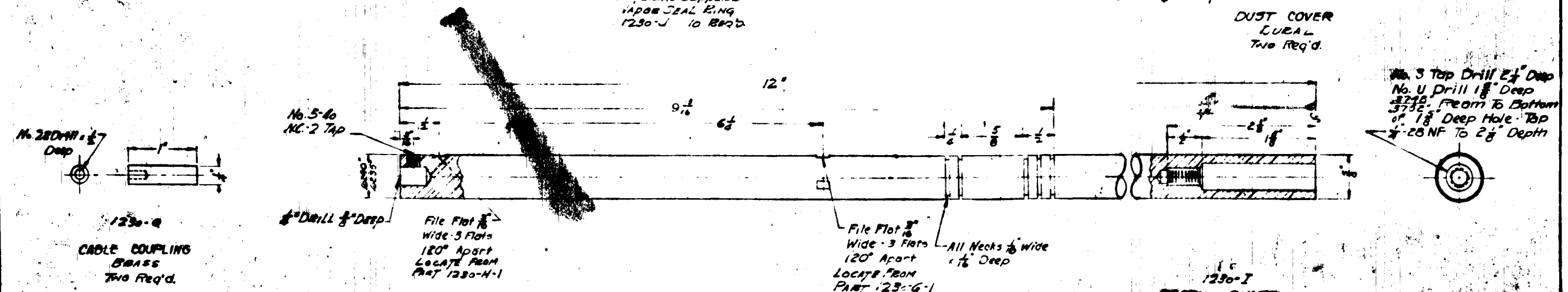


1.000" to 1.002"
Press Fit
with Bearing

MATERIAL SUPPLIED
VAPOR SEAL RING
1230-J 10 REQ'D



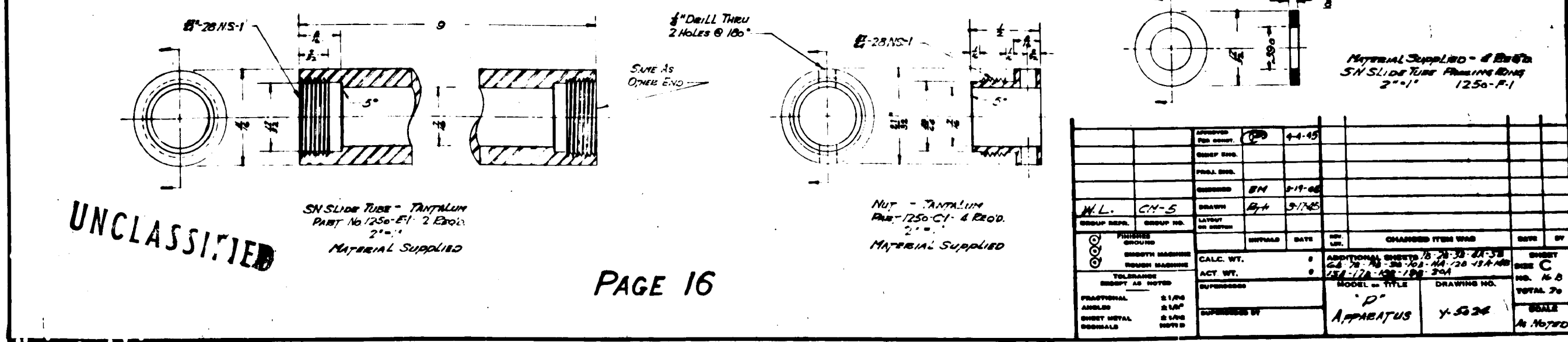
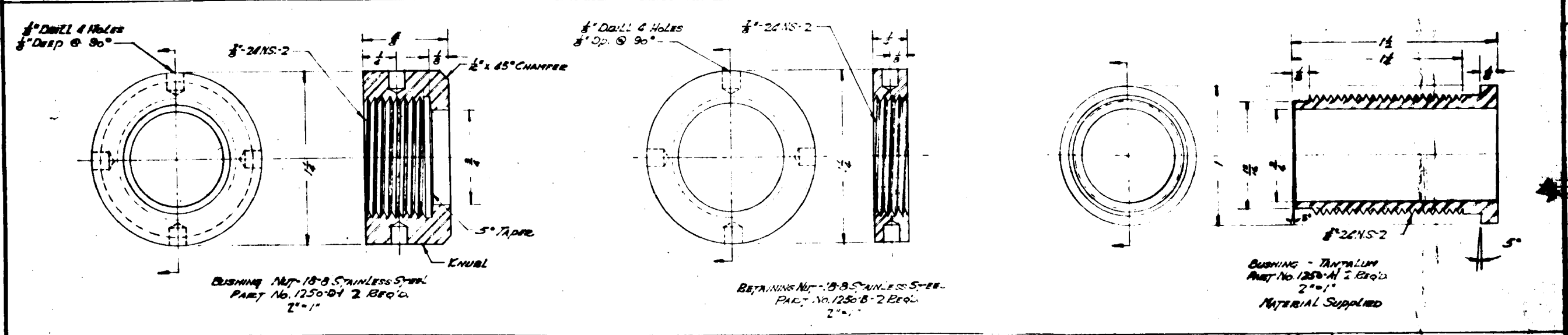
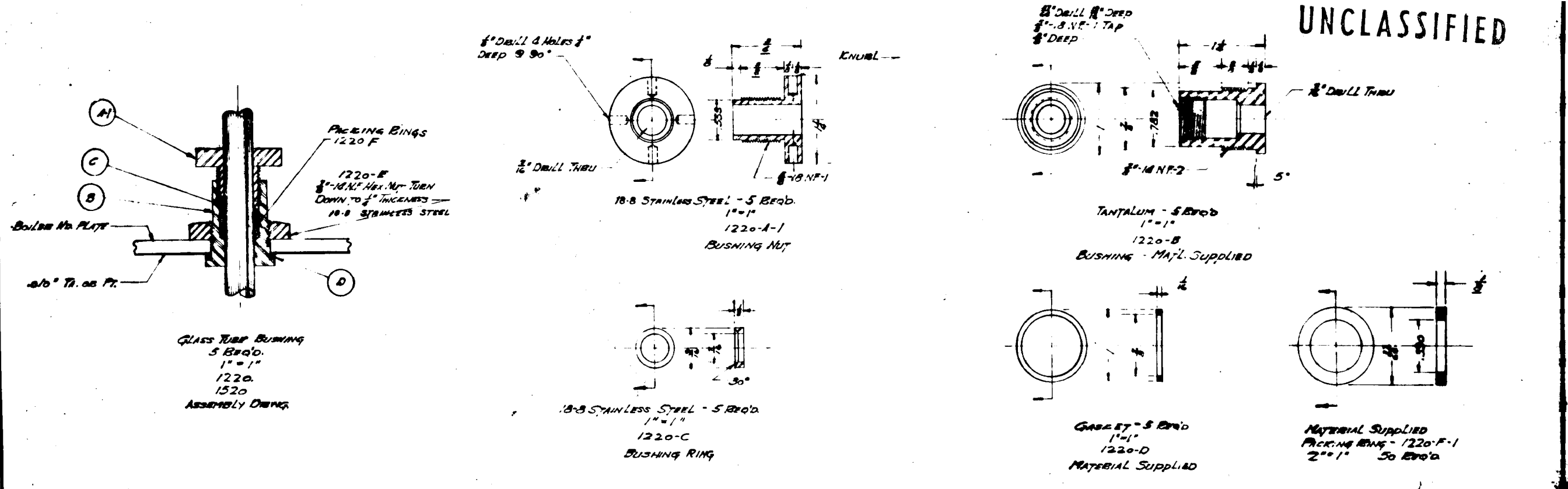
No 30 Drill Thru
4 HOLES 90° APART
ON A 2 1/2" DIA φ



UNCLASSIFIED

DESIGNED BY	DIG	DATE	02-45
DRAWN BY	REN	DATE	12-45
CHECKED BY			
APPROVED BY			
SCALE	AS SHOWN		
NO. OF SHEETS	158		
SHEET NO.	158		
TOTAL SHEETS	20		
MODEL OR TITLE	APPARATUS		
DRAWING NO.	Y-5024		

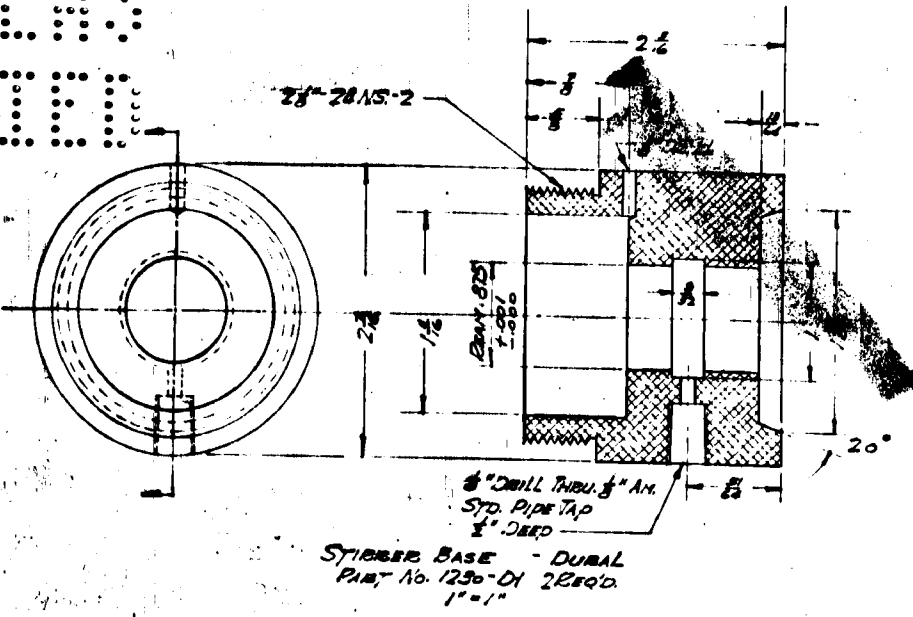
UNCLASSIFIED



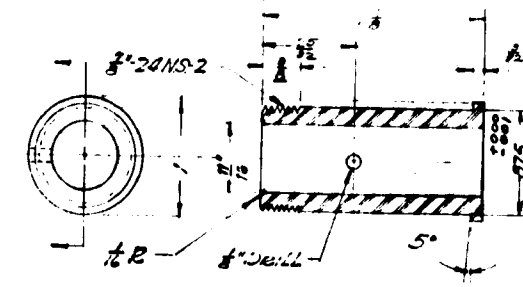
UNCLASSIFIED

APPROVED FOR CONSTRUCTION	4-4-45				
DESIGNED BY	EM	5-19-45			
DRAWN BY	AGH	5-17-45			
LAYOUT BY					
GROUP NO.					
INITIAL	DATE	REV.	CHANGED ITEM	BY	BY
CALC. WT.			ADDITIONAL SHEETS 78-28-30-21-31		
ACT. WT.			24-78-13-28-40-44-120-114-140		
SUPERSEDED BY			121-17A-138-189-204		
FRACTIONAL ANGLES	2 1/2°		MODEL - TITLE	DRAWING NO.	SHEET NO. 16 OF TOTAL 20
SHIPT METAL	2 1/2°		APPARATUS	4-5024	SCALE
DECIMALS	NOTED				As Noted

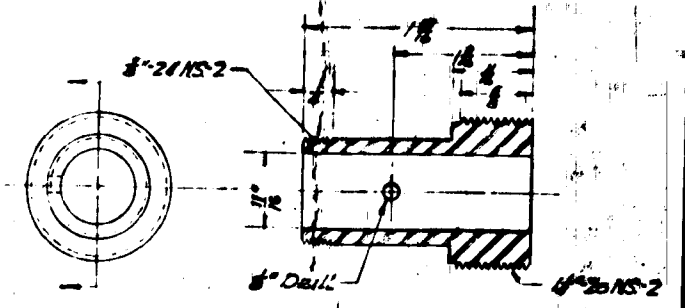
UNCLASSIFIED



SYBBER BASE - DURAL
PART No. 1250-D1 2 REQ'D
1" = 1"



SYBBER BUSHING - TANTALUM
PART No. 1230-F1 2 REQ'D
1" = 1"
MATERIAL SUPPLIED



VAPOR SEAL SLEEVE - TANTALUM
PART No. 1250-C 2 REQ'D
1" = 1"
MATERIAL SUPPLIED

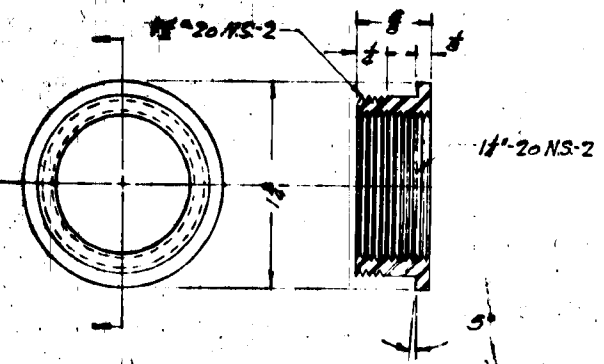
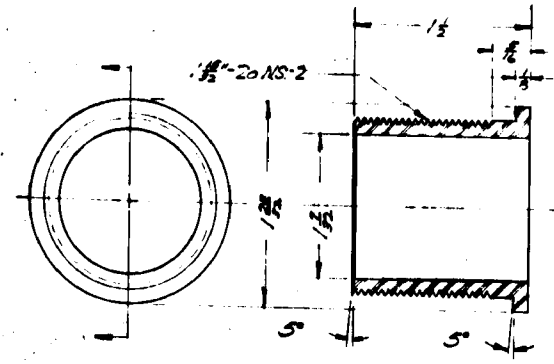
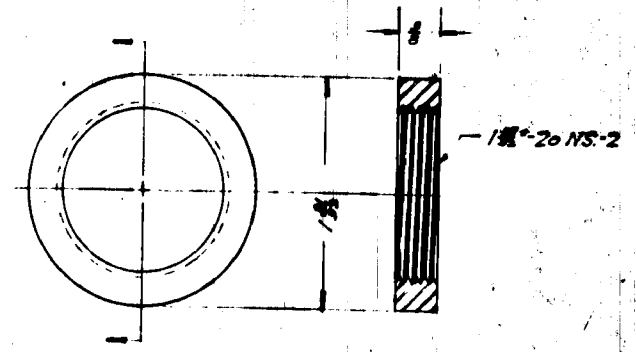


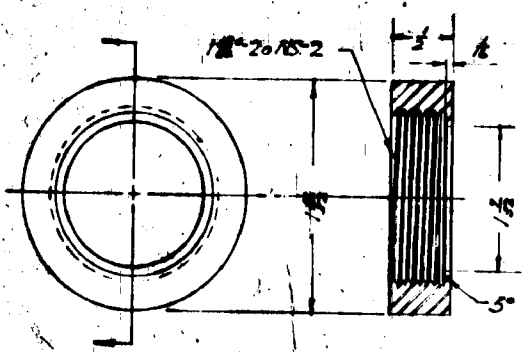
PLATE BUSHING - TANTALUM
PART No. 1230-A 2 REQ'D
1" = 1"
MATERIAL SUPPLIED



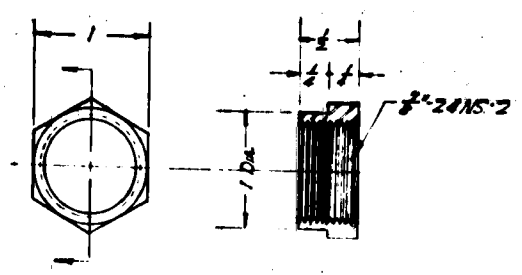
V.T. BUSHING - TANTALUM
PART No. 1230-I 1 REQ'D
1" = 1"
MATERIAL SUPPLIED



EXPANDING NUT - 18-8 STAINLESS STEEL
PART No. 1570-B 1 REQ'D
1" = 1"



PACKING NUT - 18-8 STAINLESS STEEL
PART No. 1570-D 1 REQ'D
1" = 1"



Hex NUT - 18-8 STAINLESS STEEL
PART No. 1230-M1 2 REQ'D
1" = 1"

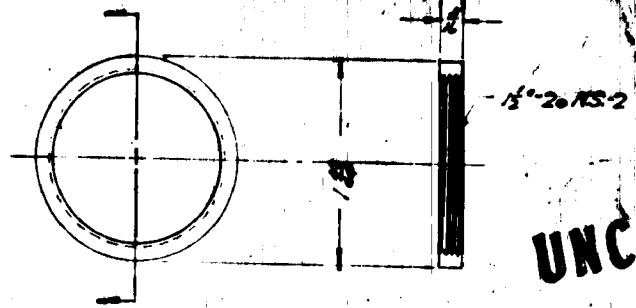
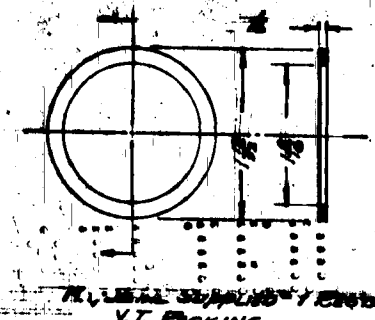


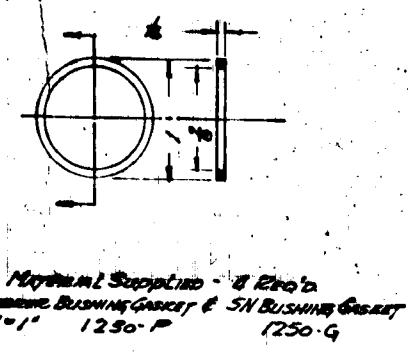
PLATE BUSHING NUT - 18-8 STAINLESS STEEL
PART No. 1230-B 2 REQ'D
1" = 1"

UNCLASSIFIED

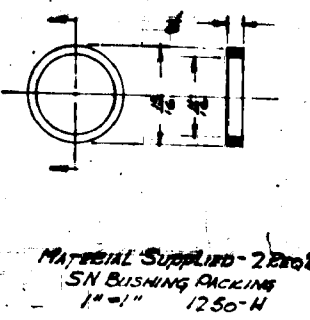
PAGE 17



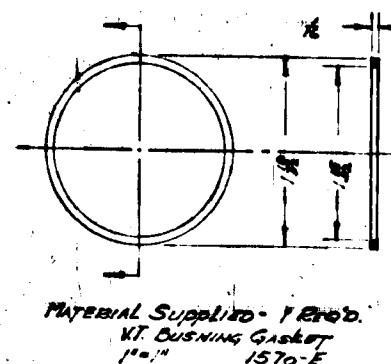
V.T. PACKING
1" = 1" (573-C)



SYBBER BUSHING GASKET & SN BUSHING GASKET
1" = 1" 1250-P 1250-G



SN BUSHING PACKING
1" = 1" 1250-H

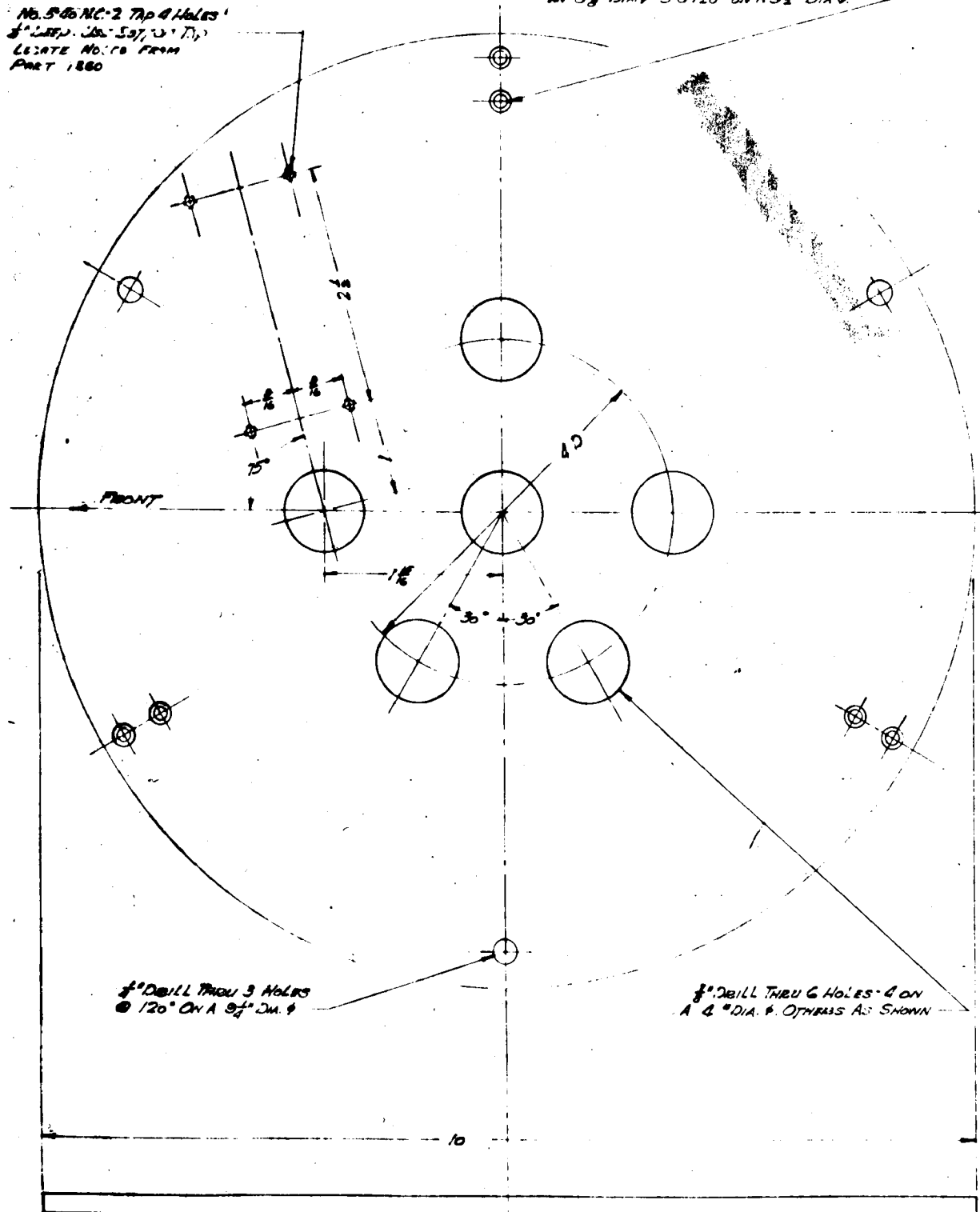


V.T. BUSHING GASKET
1" = 1" 1570-E

APPROVED FOR CONY.	RD	4-4-48			
COMP. ENG.					
PROJ. ENG.					
DESIGNED	BH	3-17-48			
DRAWN	BTH	3-18-48			
GROUP NO.					
GROUP NO.					
FINISHED					
ROUGH					
SMOOTH					
ROUGH					
TOLERANCE					
EXCEPT AS NOTED					
FRACTIONAL	± 1/64				
ANGLES	± 1/8°				
SURFACE METAL	± 1/64				
DIAGONALS	NOTED				
APPROVED					
DATE					
BY					
CHANGED ITEM					
DATE					
BY					
ADDITIONAL SHEETS					
28-38-48-49-50-51-52					
53-54-55-56-57-58-59-60					
61-62-63-64-65-66-67-68					
69-70-71-72-73-74-75-76					
77-78-79-80-81-82-83-84					
85-86-87-88-89-90-91-92					
93-94-95-96-97-98-99-100					
CALC. WT.					
ACT. WT.					
SUPERSEDED					
SUPERSEDED BY					
MODEL OR TITLE					
APPARATUS					
DRAWING NO.					
YJ024					
SHEET					
NO. 17					
TOTAL 20					
SCALE					
AS NOTED					

No. 5-40 NC-2 Tap 4 Holes
 1/2" Deep. Use 5/16" Tap
 LOCATE HOLES FROM
 PART 1560

No. 30 Drill Thru 6 Holes - Cst. For No.
 5-40 NC. Flat Hd. Mach. Screw. 3/8" Dia. on
 An 8 1/2" Dia. 3/8" Dia. on A 9 1/2" Dia.



1/4" Drill Thru 3 Holes
 @ 120° On A 9 1/2" Dia.

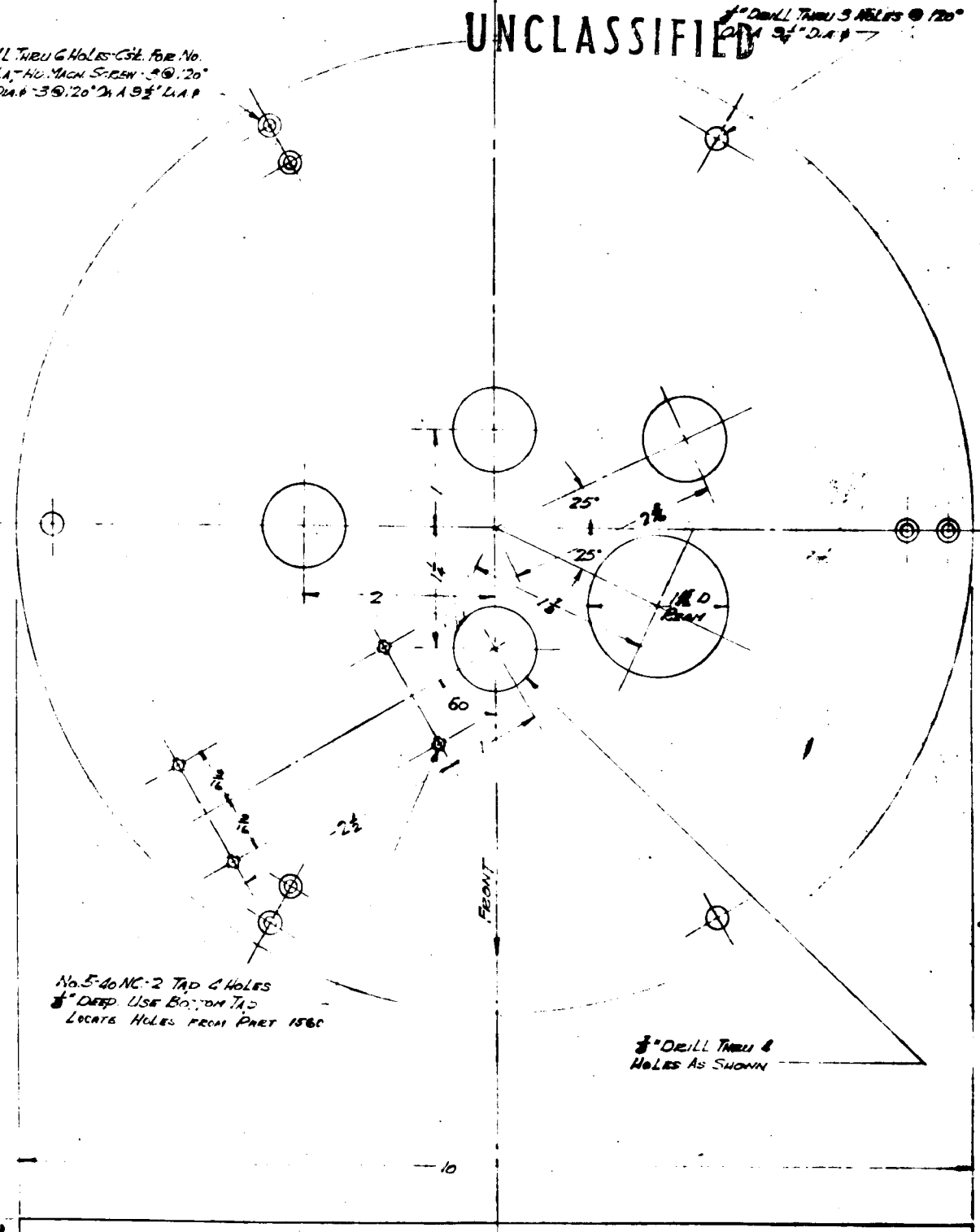
3/8" Drill Thru 6 Holes - 4 on
 A & 2" DIA. & OTHERS AS SHOWN

EXTRACTOR HEAD PLATE
 18-8 STAINLESS STEEL
 PART No. 1210-A 1 Rfd'd
 1 1/2"

UNCLASSIFIED

UNCLASSIFIED
 1/4" Drill Thru 3 Holes @ 120°
 On A 9 1/2" Dia.

No. 30 Drill Thru 6 Holes - Cst. For No.
 5-40 NC. Flat Hd. Mach. Screw. 3/8" Dia. on
 An 8 1/2" Dia. 3/8" Dia. on A 9 1/2" Dia.



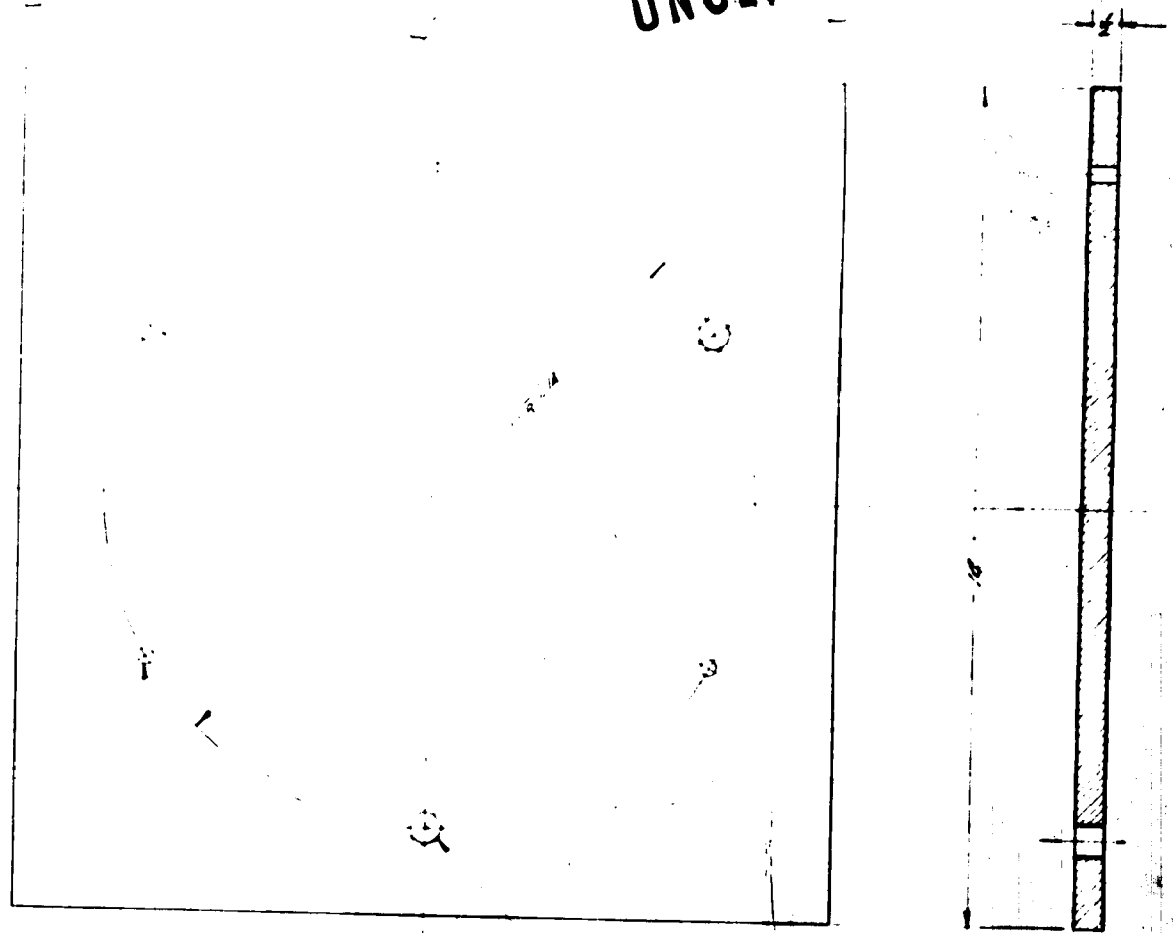
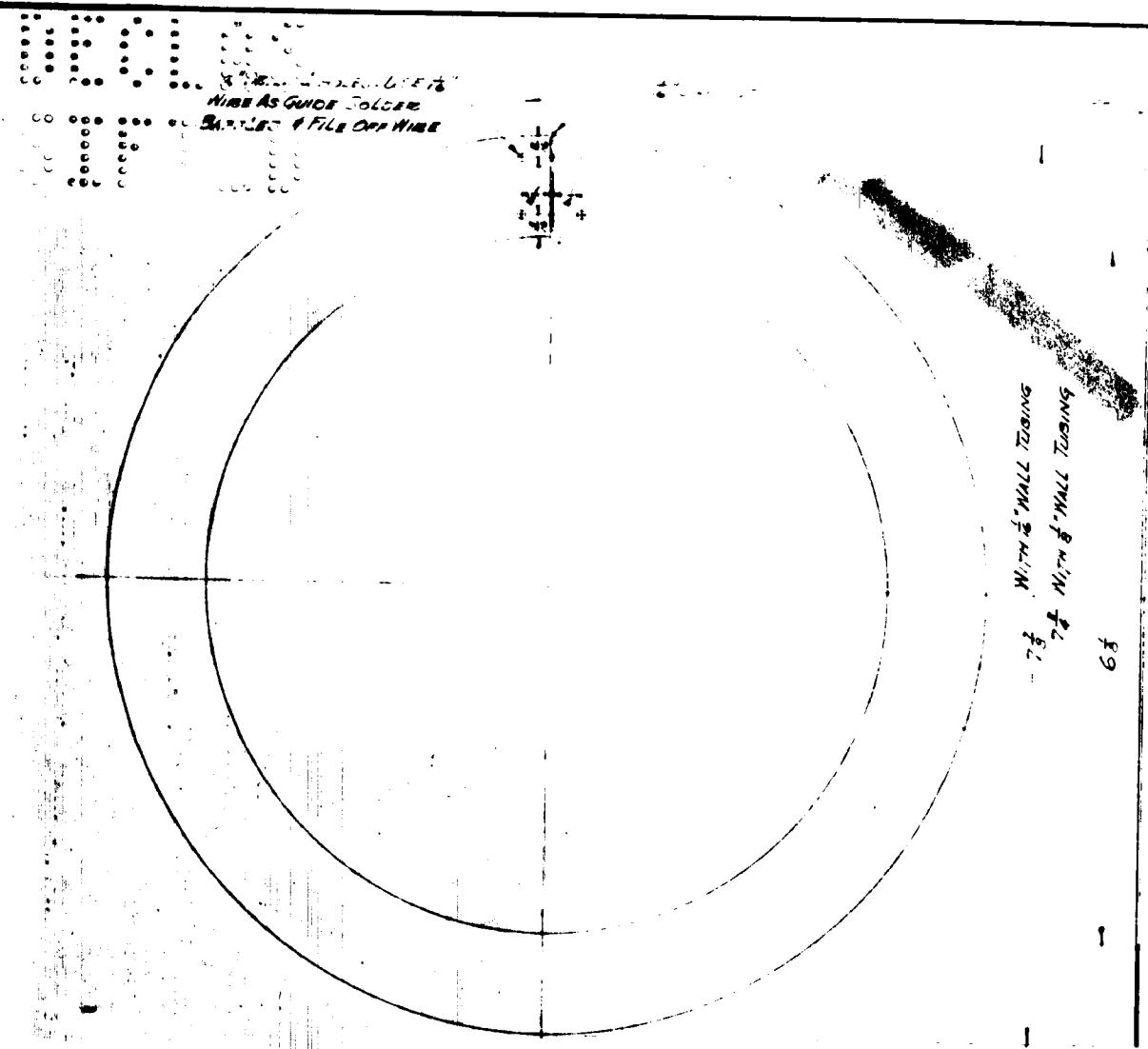
No. 5-40 NC-2 Tap 4 Holes
 1/2" Deep. Use Bottom Tap
 LOCATE HOLES FROM PART 1560

3/8" Drill Thru 6
 Holes As Shown

Boiler Head Plate
 18-8 STAINLESS STEEL
 PART No. 510-A 1 Rfd'd
 1 1/2"

APPROVED FOR SHOP	(P.D.)	4-4-45			
GROUP ENG.					
PROJ. ENG.					
DESIGNED	RHG	4-3-45			
W.L.	CY-5	DRAWN	KTH	5-8-45	
GROUP REPR.	GROUP NO.	LAYOUT OR SECTION			
FINISH			INITIALS	DATE	BY
GROUND					
ROUGH MACHINE					
ROUGH MACHINE					
TOLERANCE EXCEPT AS NOTED					
FRACTIONAL	± 1/64				
ANGLES	± 1/8°				
SHEET METAL	± 1/32				
DECIMALS	± 0.005				
CALC. WT.		ACT. WT.		SUPERSEDED	
MODEL OR TITLE		DRAWING NO.		SHEET NO.	
SUPERSEDED BY		Y-5024		188	
APPROVED BY		APPARATUS		TOTAL 20	
				SCALE	
				As Shown	

UNCLASSIFIED



UNCLASSIFIED

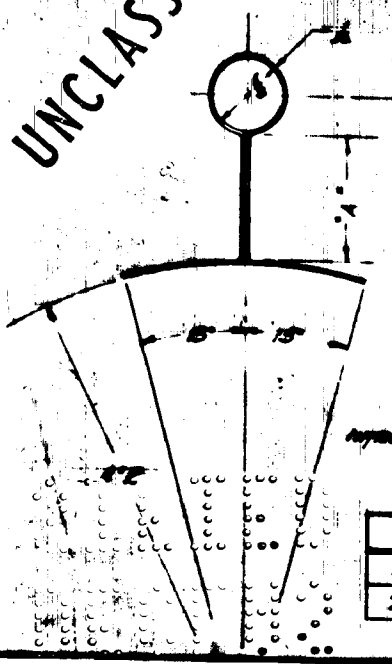
COIL BAFFLE - COPPER
PAR. 16120-F-1 25 REQ'D
SOILER PART NO. 1620-F

NO. 30 DRILL - 2 HOLES
COUNTERSUNK FOR #5-40NC.
FLAT HEAD MACH. SCREW - HAND REAM .700

105.40 TAP - 2 HOLES THRU
LOCATE FROM HEAD PLATE

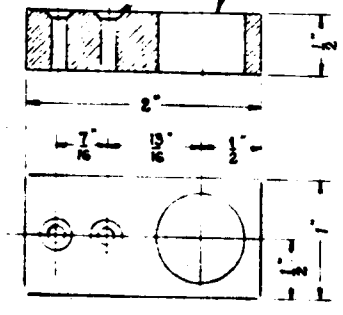
PART NO. 1260-7-1
1260-Q-1
1260-Q-1

EXTRACTOR BASE PLATE - BRASS
PAR. 1310-B 25 REQ'D

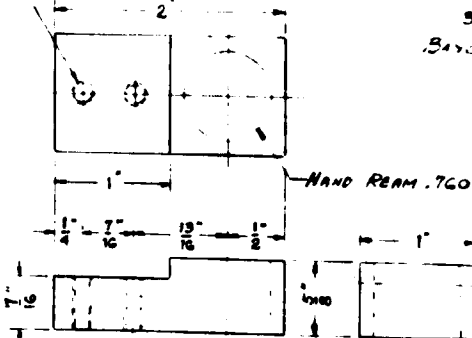


Support Rod
PAR. 16120-F-1 5 REQ'D

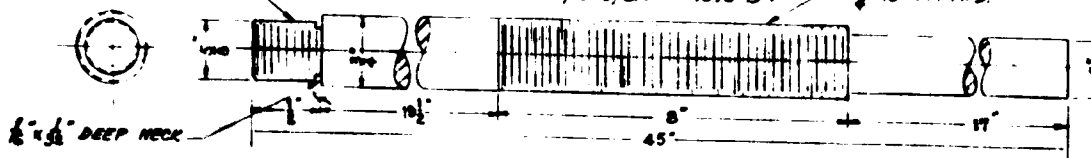
"A"	No. Req'd.
1 1/2	2
2 1/2	1



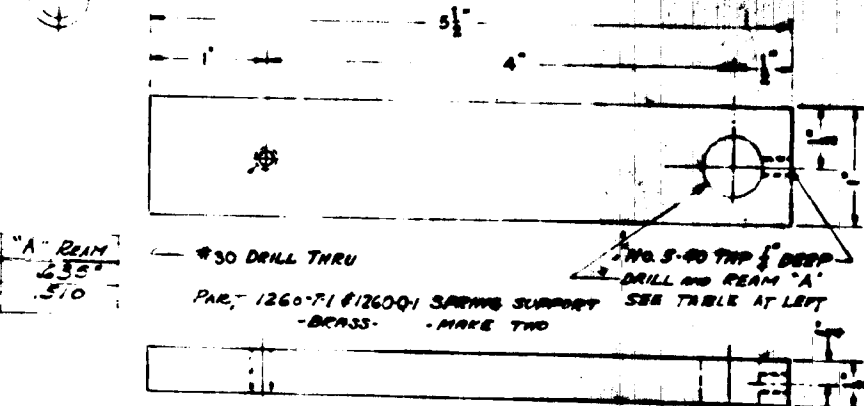
1310-C-1
EXTRACTOR JACKET LUG
- BRASS - 5 REQ'D



1310-E-1 BRASS - 6 REQ'D
HEAD LUGS
SOILER PART 1610-E-1
EXTRACTOR - 1310-D-1

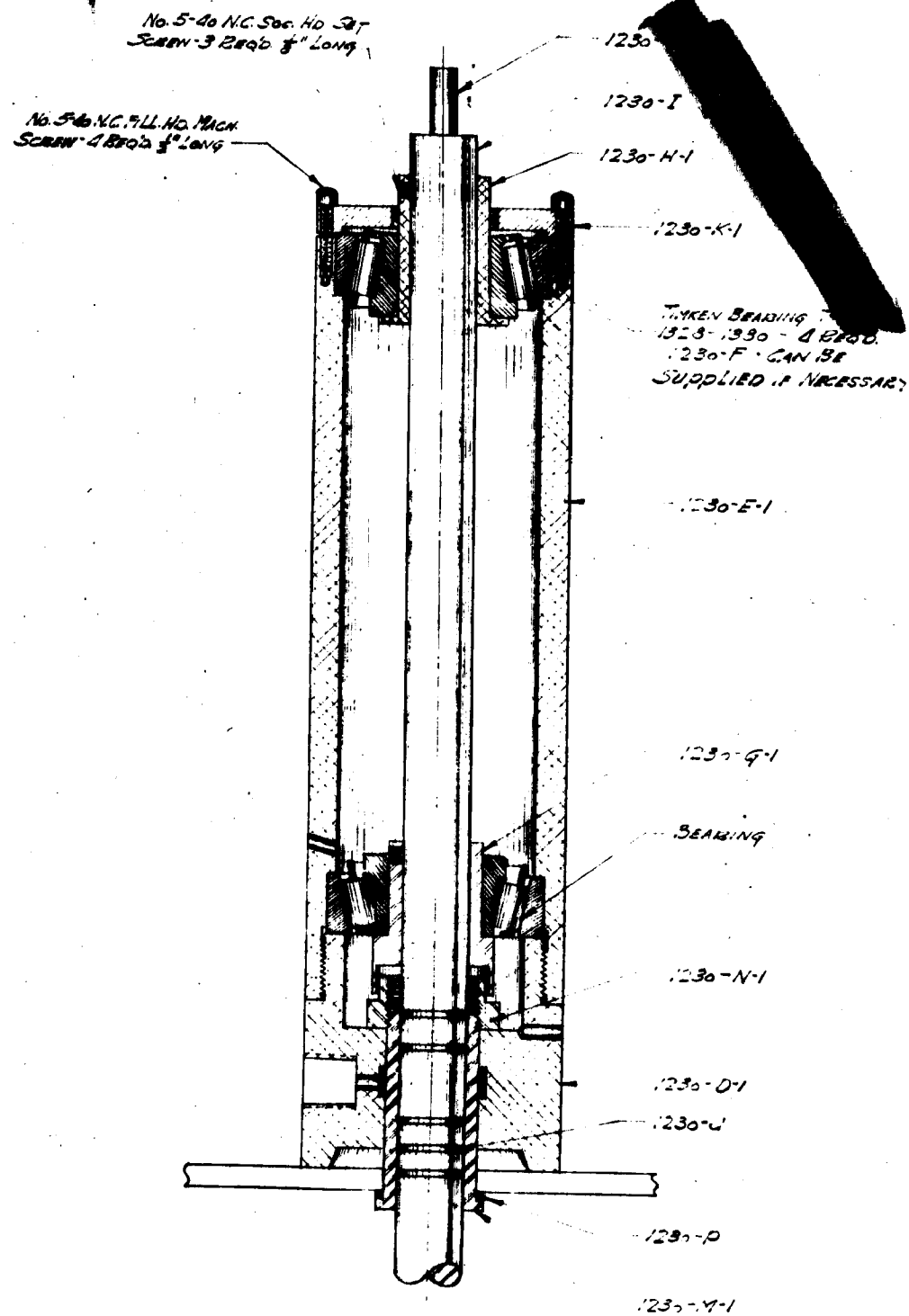


1310-A1 SUPPORT ROD - 1/2" C.P. STEEL
- MAKE THREE



GROUP	NO.	DATE	BY	REVISION
DESIGNED	W.L.	4-4-45		
DRAWN	CM-5			
CHECKED	BHG	4-3-45		
APPROVED	BTM	5-20-45		
FRAC.				
ANGLES				
FINISH METAL				
REWORK				
CALC. WT.		ADDITIONAL SHEETS		SHEET NO. 19 B
ACT. WT.		TOTAL 20		
SUPERVISOR		MODEL - TITLE		SCALE
SUPERVISOR BY		APPARATUS		
		Y-5028		AS 16/70

UNCLASSIFIED



STIRRED BENDING
SECTIONAL ASSEMBLY
2 BEAD 1230 & 1530

PAGE 20

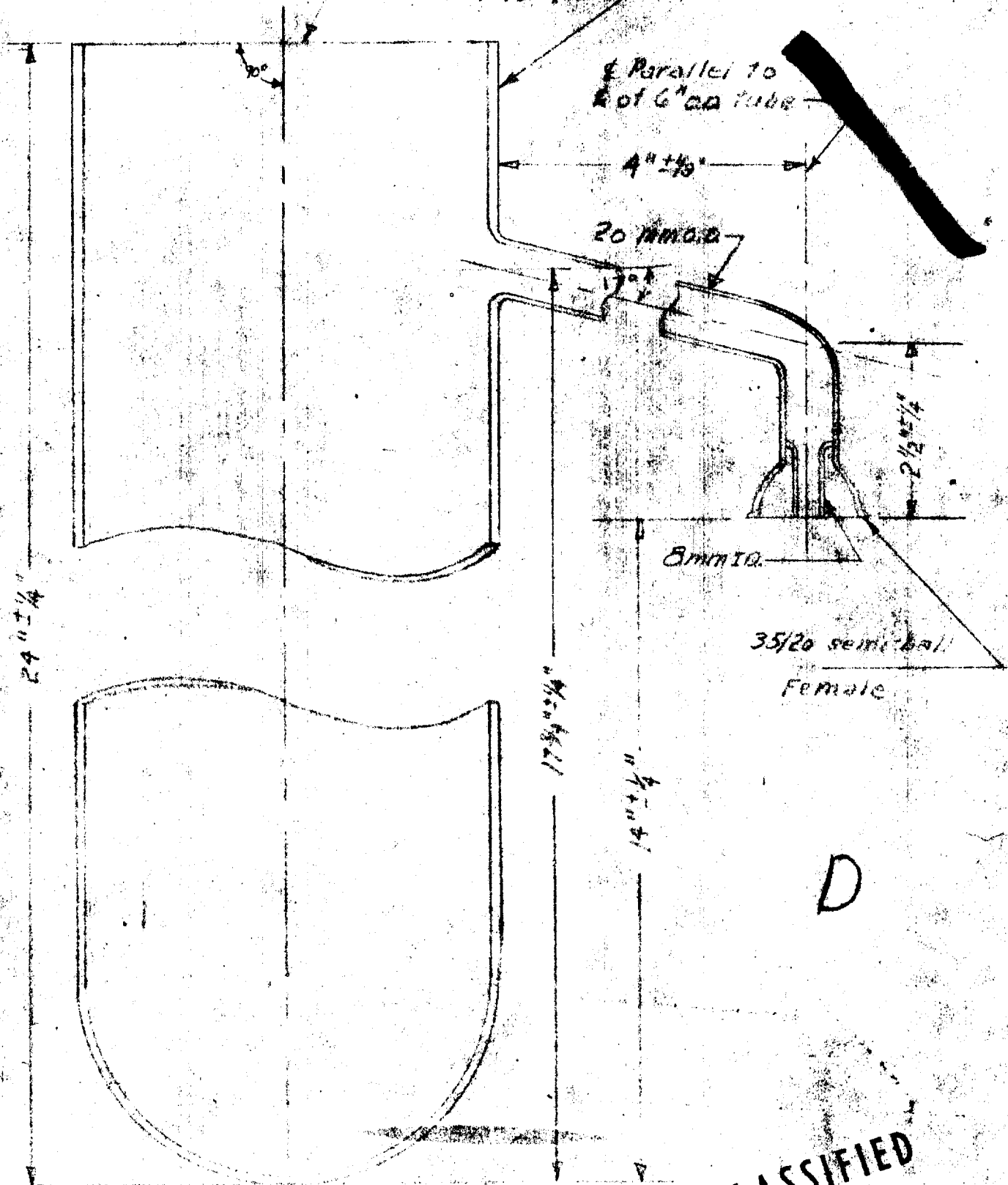
UNCLASSIFIED

APPROVED FOR COPY	1-4-5				
CHIEF ENG.					
PRIN. ENG.					
CHECKED	246	3-24-45			
DRAWN	BH	3-24-45			
LAYOUT OR CHECK					
GROUP REP.	GROUP NO.	INITIALS	DATE	REV. NO.	CHANGED ITEM NO.
SMOOTH MACHINE					
ROUGH MACHINE					
TOLERANCE EXCEPT AS NOTED					
FRACTIONAL	± 1/64				
ANGLES	± 1/8°				
CAST METAL	± 1/32				
STOCKS	NOTED				
CALC. WT.					
ACT. WT.					
SUPPRESSED					
SUPPRESSED BY					
ADDITIONAL COMMENTS					
MODEL or TITLE					
APPARATUS					
Y5024					
SHEET NO. 20					
TOTAL					
FULL					

UNCLASSIFIED

Grind flat to give
light fine polish

6" ± 0.015 "
Wall $1/8 \pm 1/32$ "



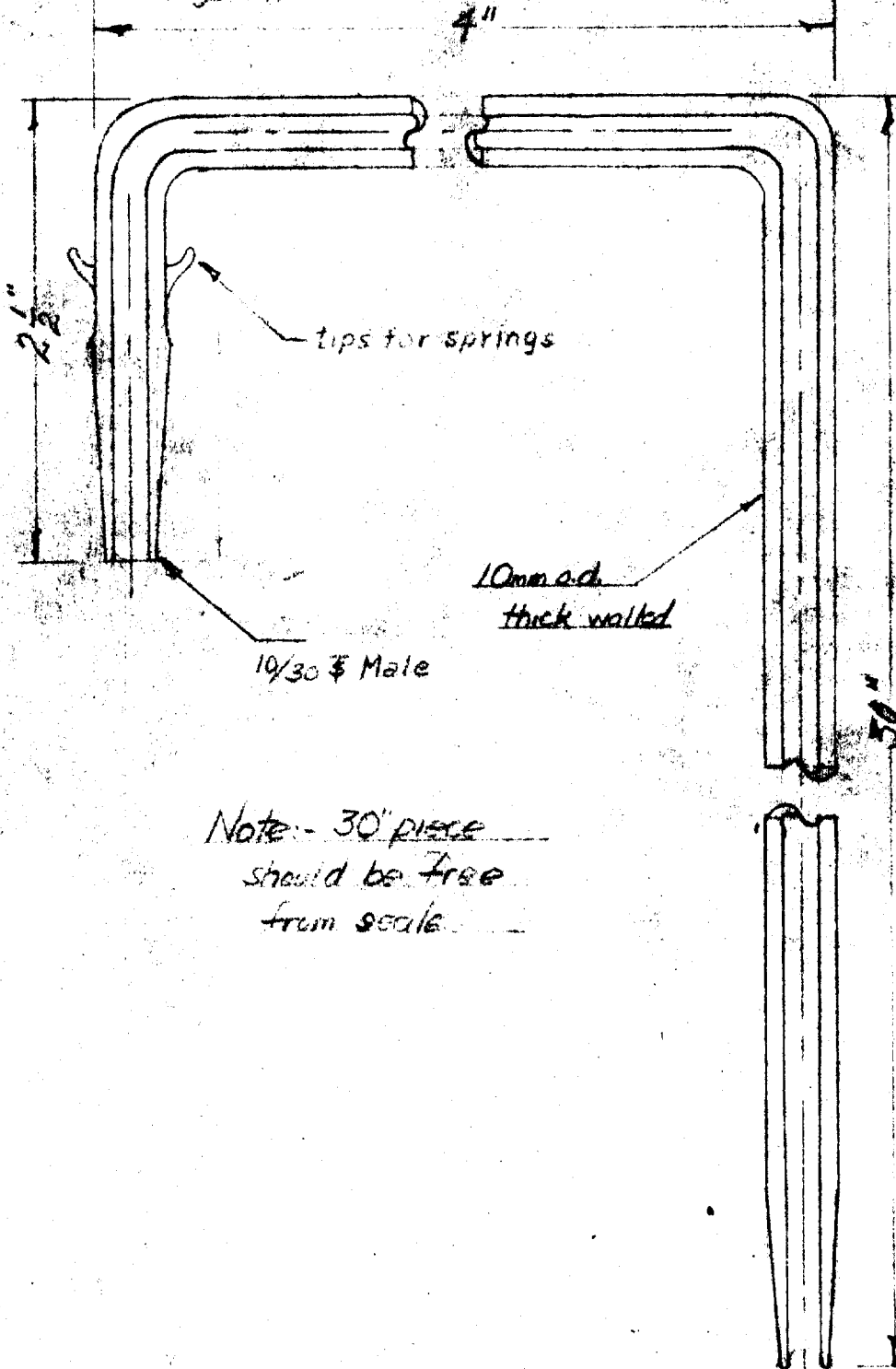
Wall $1/8 \pm 1/32$ "

Extra lot
Part No. 2111

UNCLASSIFIED

S/N Tube - Extractor
Part No. 2121
Material
Pyrex Glass

UNCLASSIFIED



Note - 30" piece
should be free
from scale

D

UNCLASSIFIED

2121

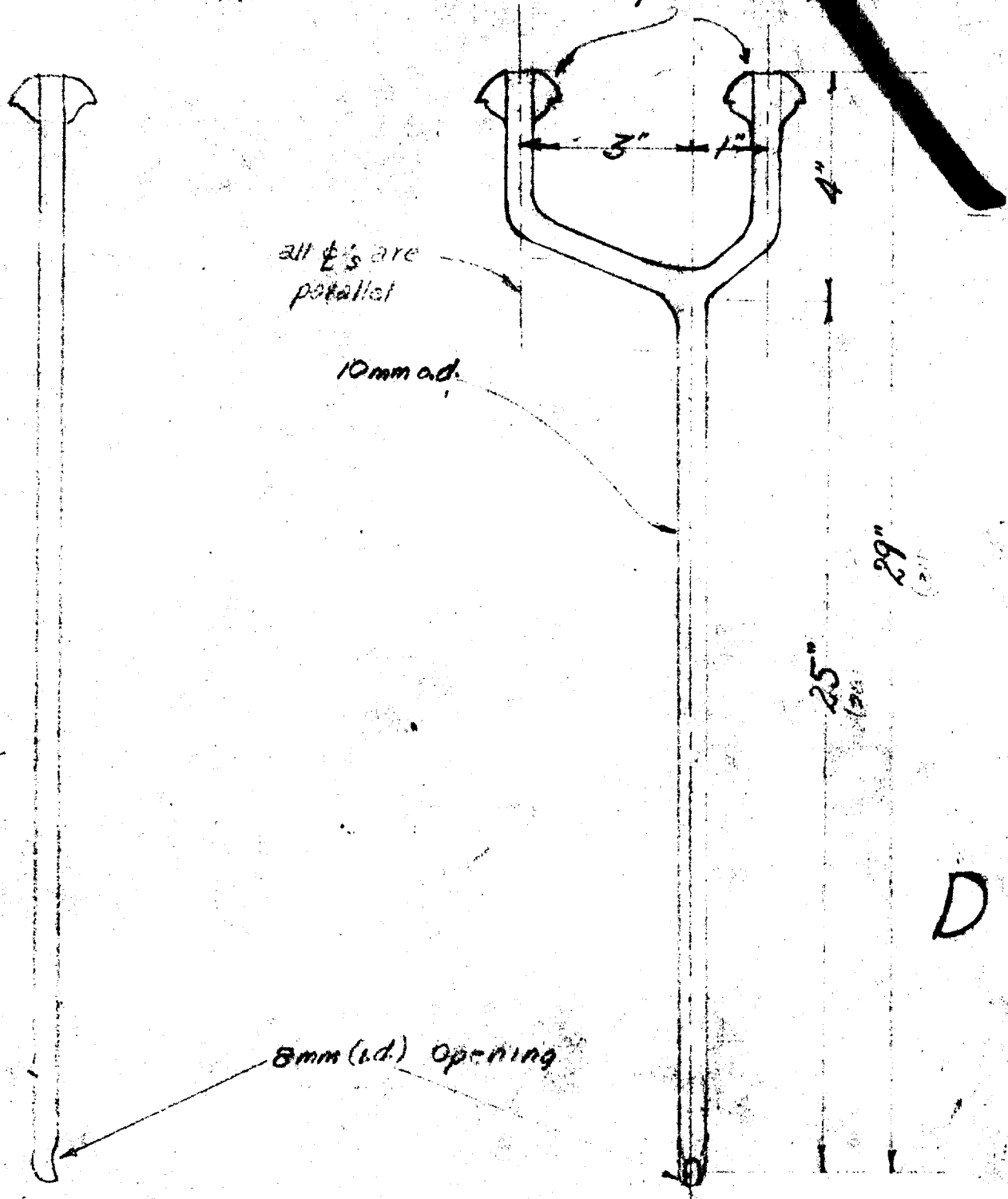
UNCLASSIFIED

Extractor Liquid Introducing tube

Part # 2141

1 Required
Pyrex Glass

35/20 Sambalite

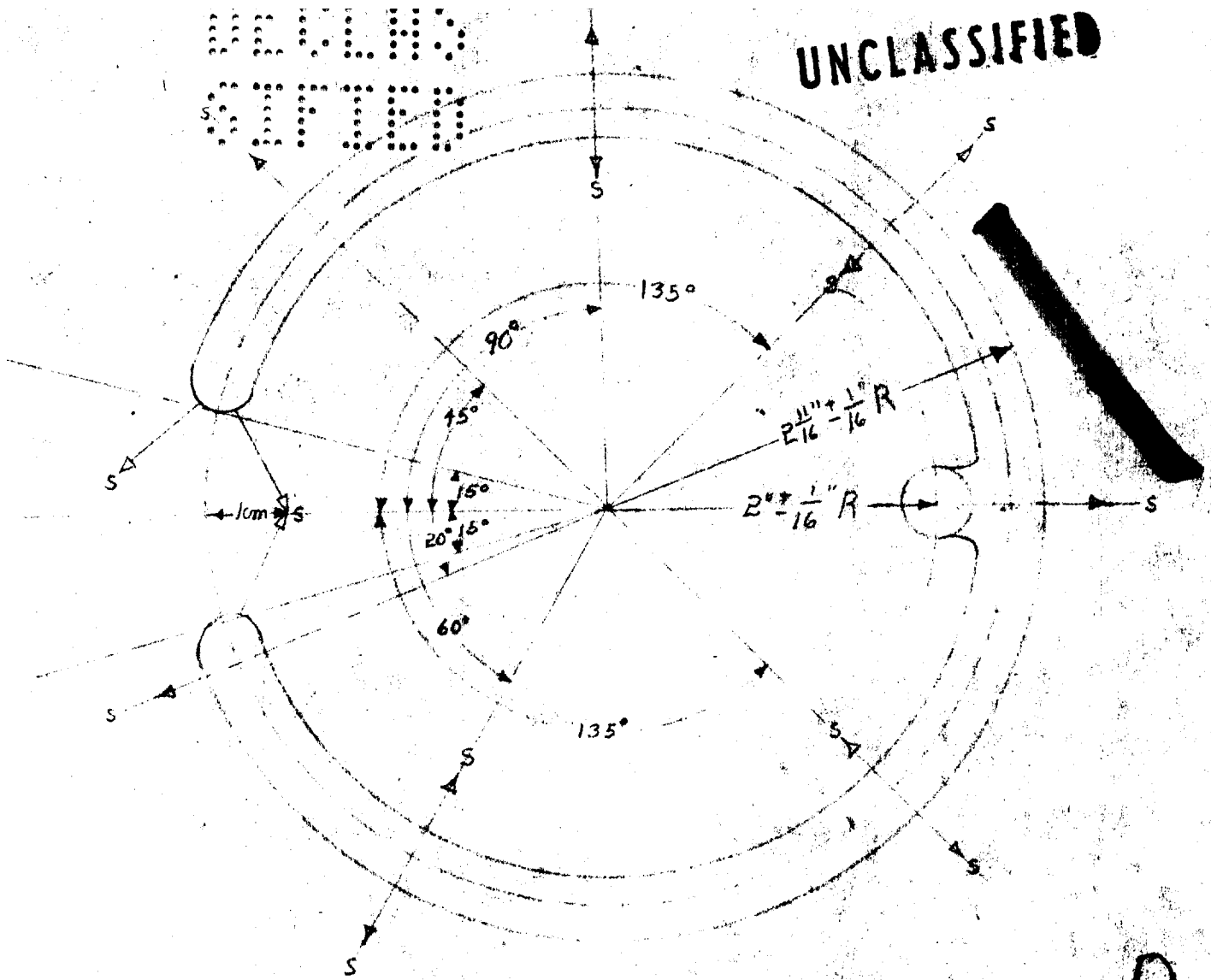


0100

UNCLASSIFIED

Revised 12-75
WWD

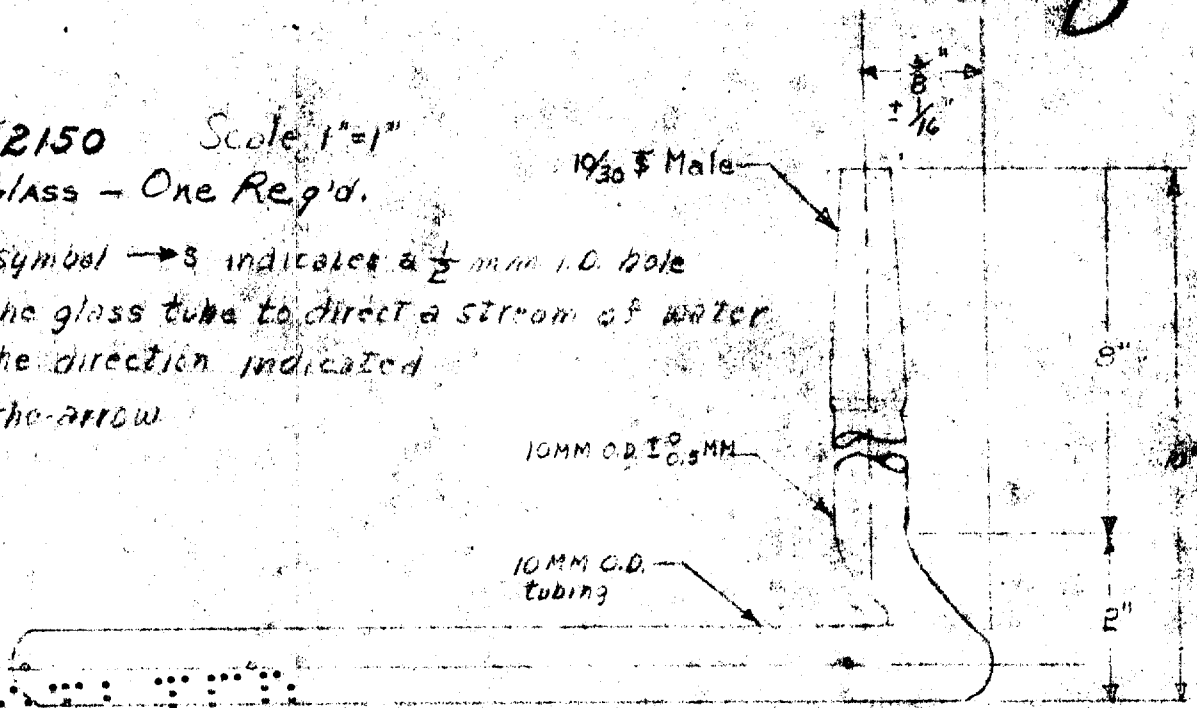
UNCLASSIFIED



Wash Ring

Part No: 2150 Scale: 1"=1"
Pyrex Glass - One Req'd.

Note: The symbol $\rightarrow S$ indicates a $\frac{1}{8}$ mm i.d. hole in the glass tube to direct a stream of water in the direction indicated by the arrow.



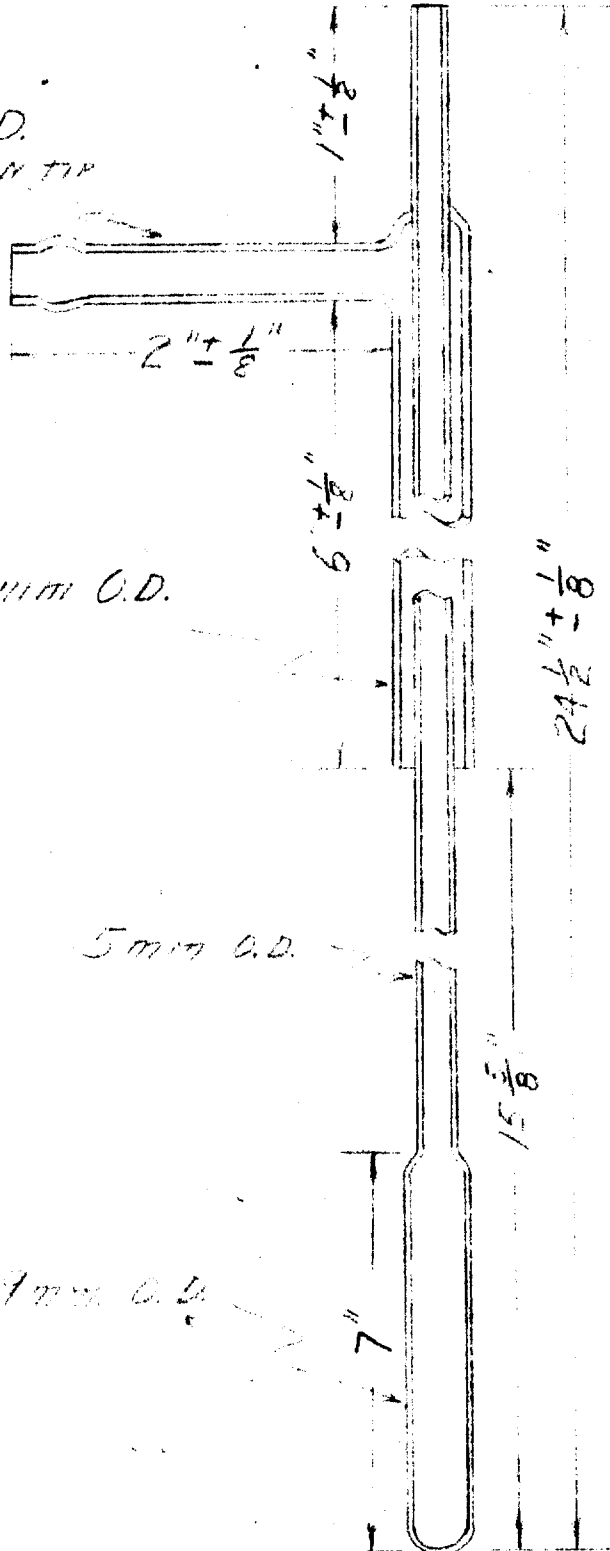
SECRET

UNCLASSIFIED

W. E. ... THERMOCOUPLE TUBE
PART No. 2181
CORNING PIREX GLASS

UNCLASSIFIED

8mm. O.D.
10mm SARAN TIP



10mm O.D.

5mm O.D.

7mm O.D.

W. E. ...
CORNING PIREX GLASS

9-19-45

UNCLASSIFIED

Extractor-Stirrer

Part No. 2470

Pyrex Glass

One Reg'd.

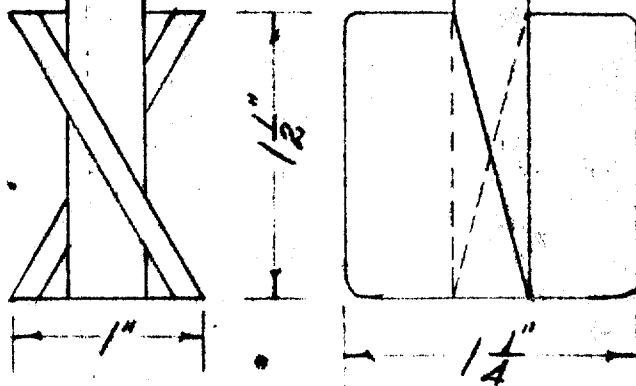
UNCLASSIFIED

Grind flat & chamfer edge

10mm ± 0.1mm
or to fit bushing furnished

20 1/2"

D



2470

UNCLASSIFIED

REVISED 4-20-95

Grind flat & per. indicator
to ϕ of main tube & give
light fine polish.

Top of joint at $\pm \frac{1}{4}$ "
of the same
level as main tube.

102/75
Semi-boil
(male)

6" O.D. $\pm \frac{0}{16}$

Wall $\frac{1}{8}$ " $\pm \frac{1}{32}$ $\pm \frac{1}{4}$
6" $\pm \frac{1}{4}$

90°

80mm e.d.

20" $\pm \frac{1}{4}$

Wall $\frac{1}{8}$ " $\pm \frac{1}{16}$
 $-\frac{1}{32}$

D

Boiler Pot

Part No. 2210

Material glass

Quantity required

Scale = $\frac{1}{2}$ " = 1"

Revised 4-2-75

PAGE 27

7 - 28

UNCLASSIFIED

UNCLASSIFIED

SECRET

SECRET

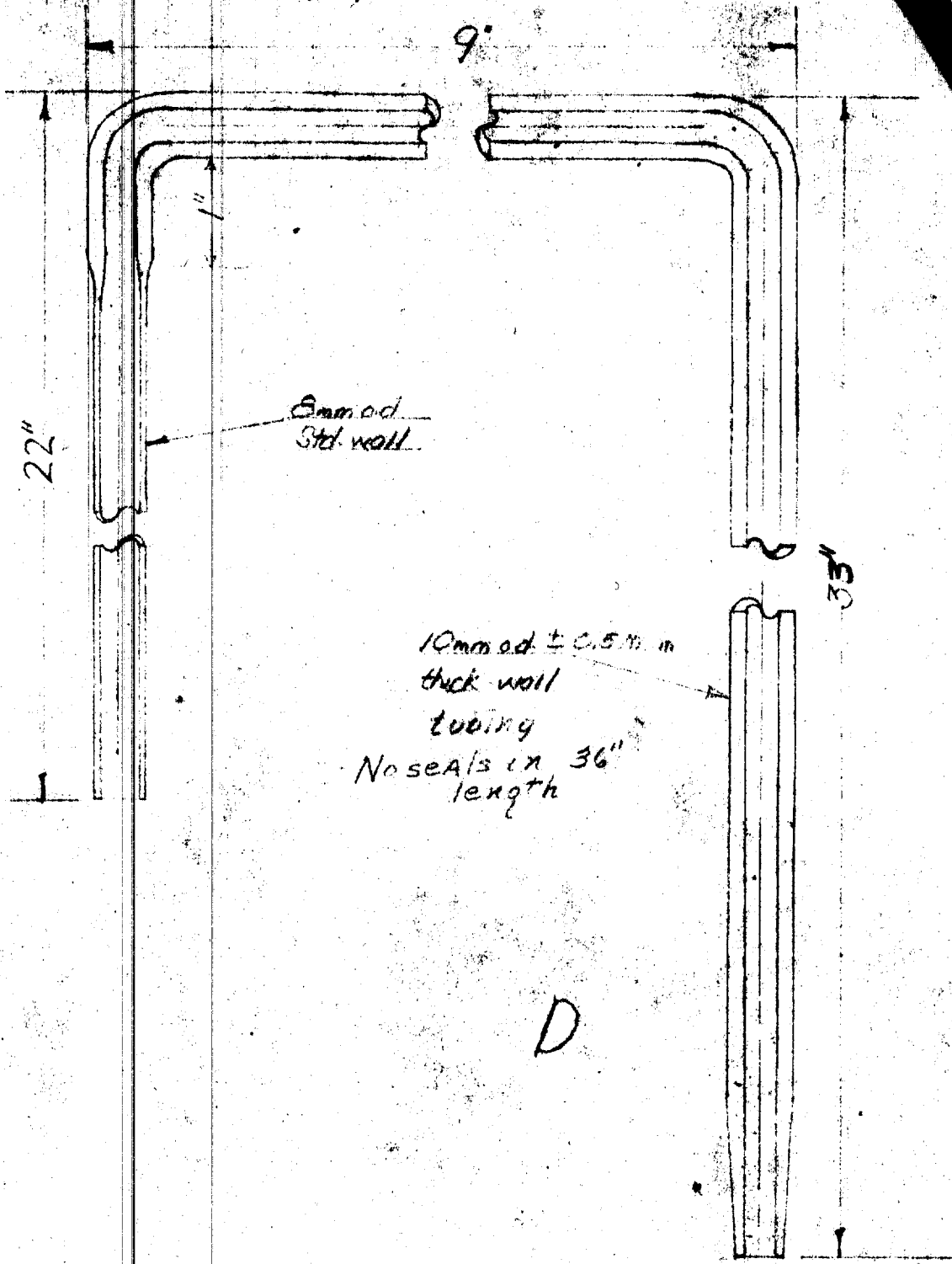
S.N. Tube Boiler

UNCLASSIFIED

Part No 2020

Material: Pyrex Glass

One Required Scale 1"=1"

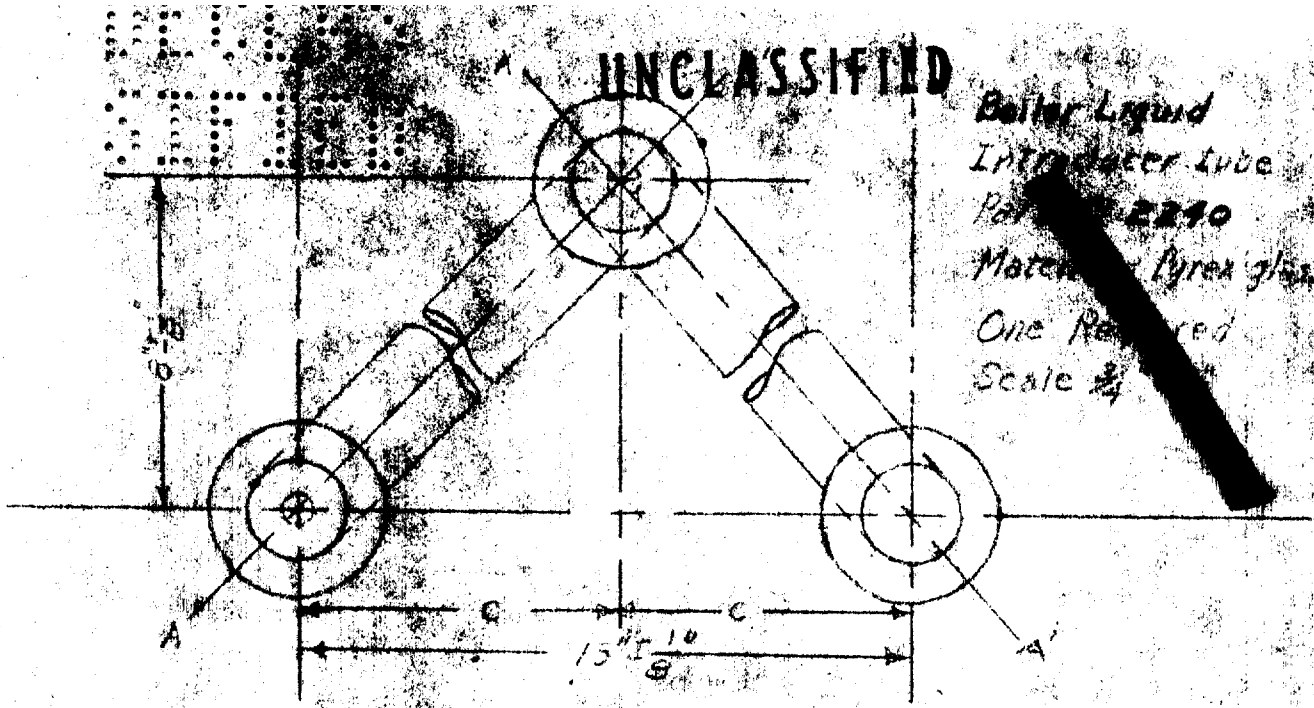


UNCLASSIFIED

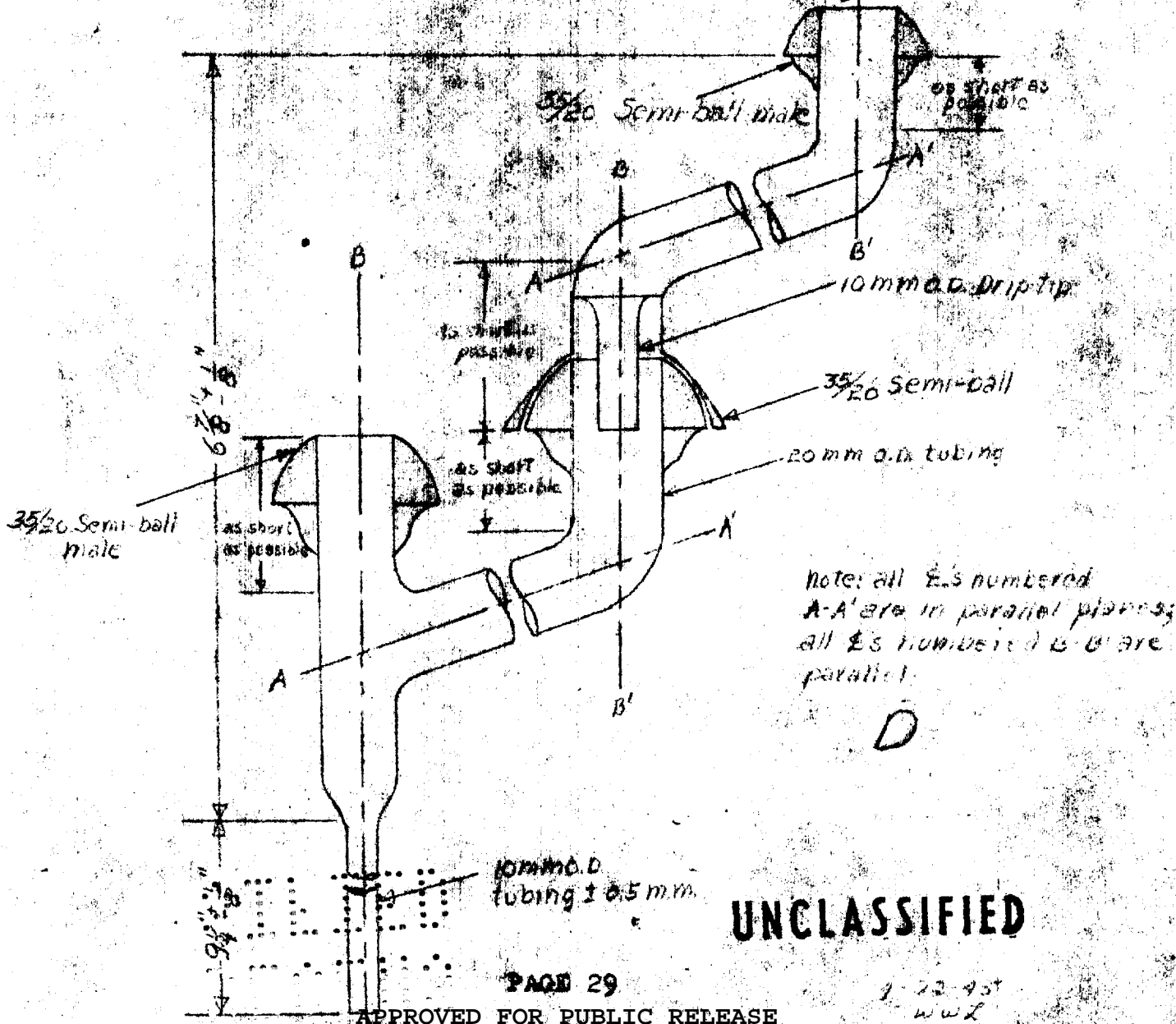
Checked
2-21-75

UNCLASSIFIED

Boiler Liquid
Introducer tube
Part No. 2290
Material Pyrex glass
One Required
Scale 1/4"



Make Patterns when substituting



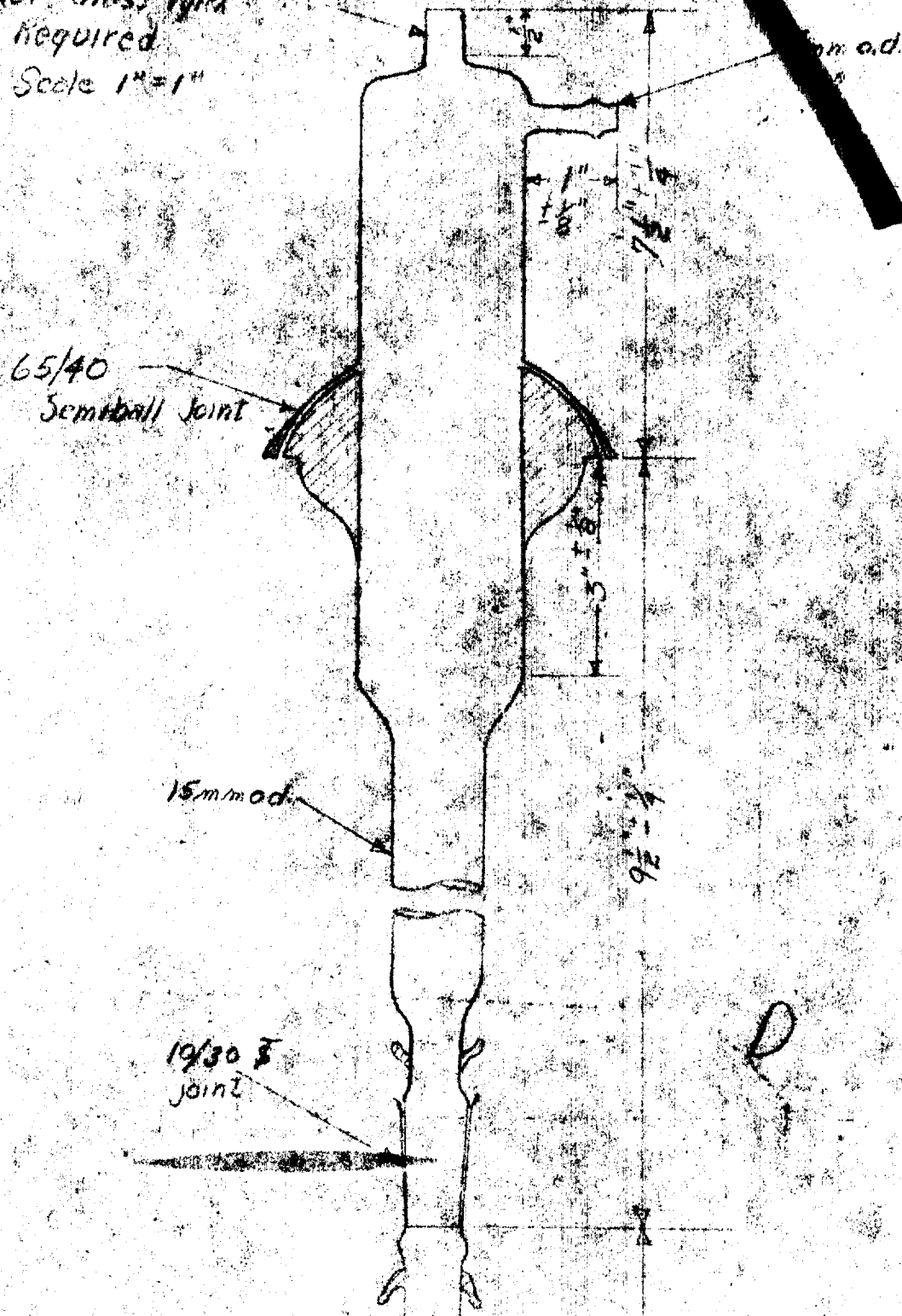
UNCLASSIFIED

1-72-957
W.W.L.

UNCLASSIFIED

S.N. Transfer Head and Bottom
Part No 2250
Material - Glass Pyrex
I Required
Scale 1"=1"

11 mm I.D. ± 1mm
not more than 16 mm

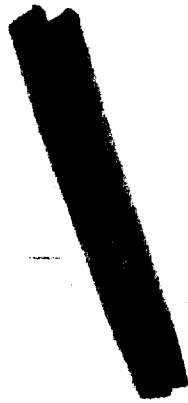
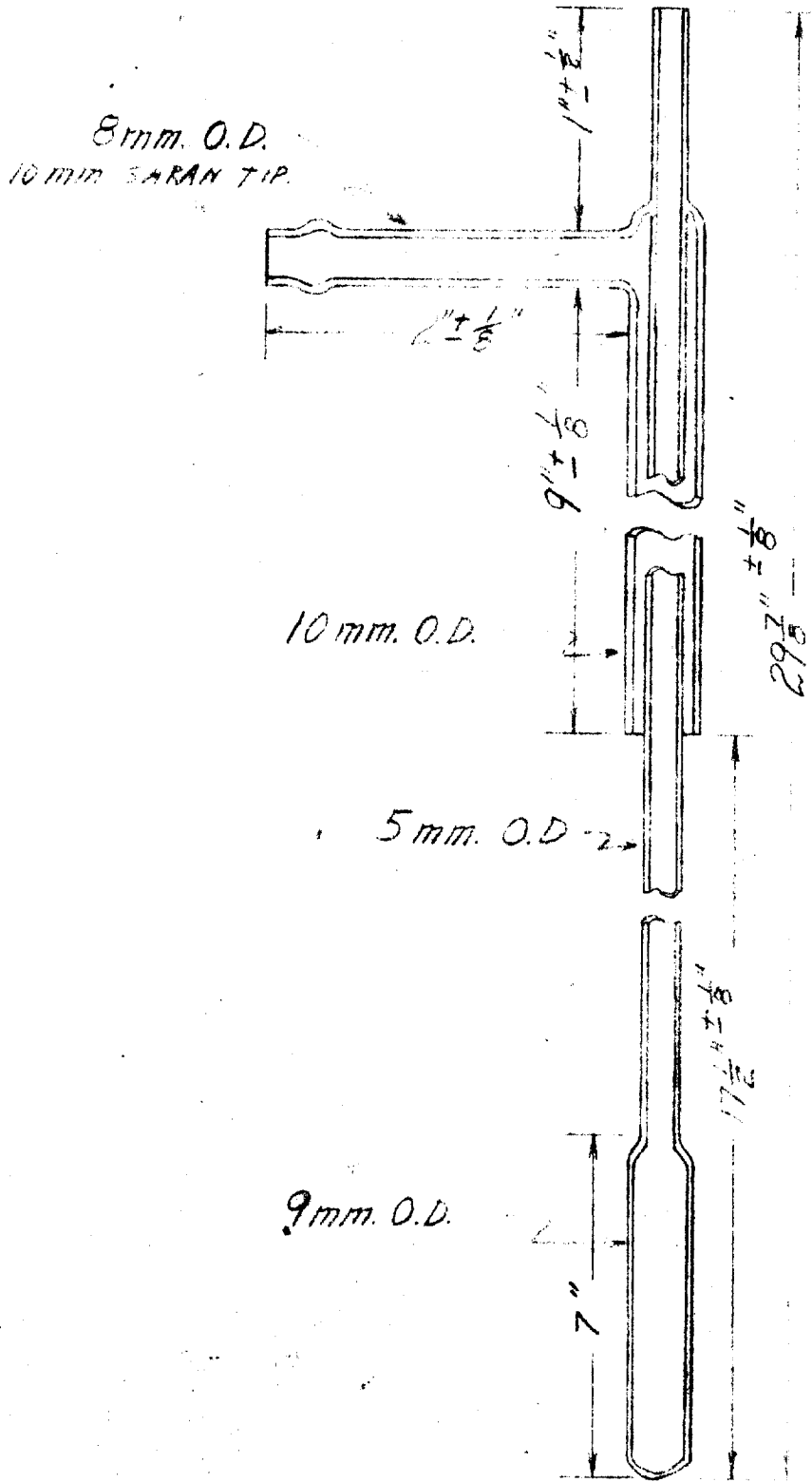


0110

UNCLASSIFIED

Admission to ...

BOILER THERMOCOUPLE **UNCLASSIFIED**
PART No. 2261
PYREX GLASS



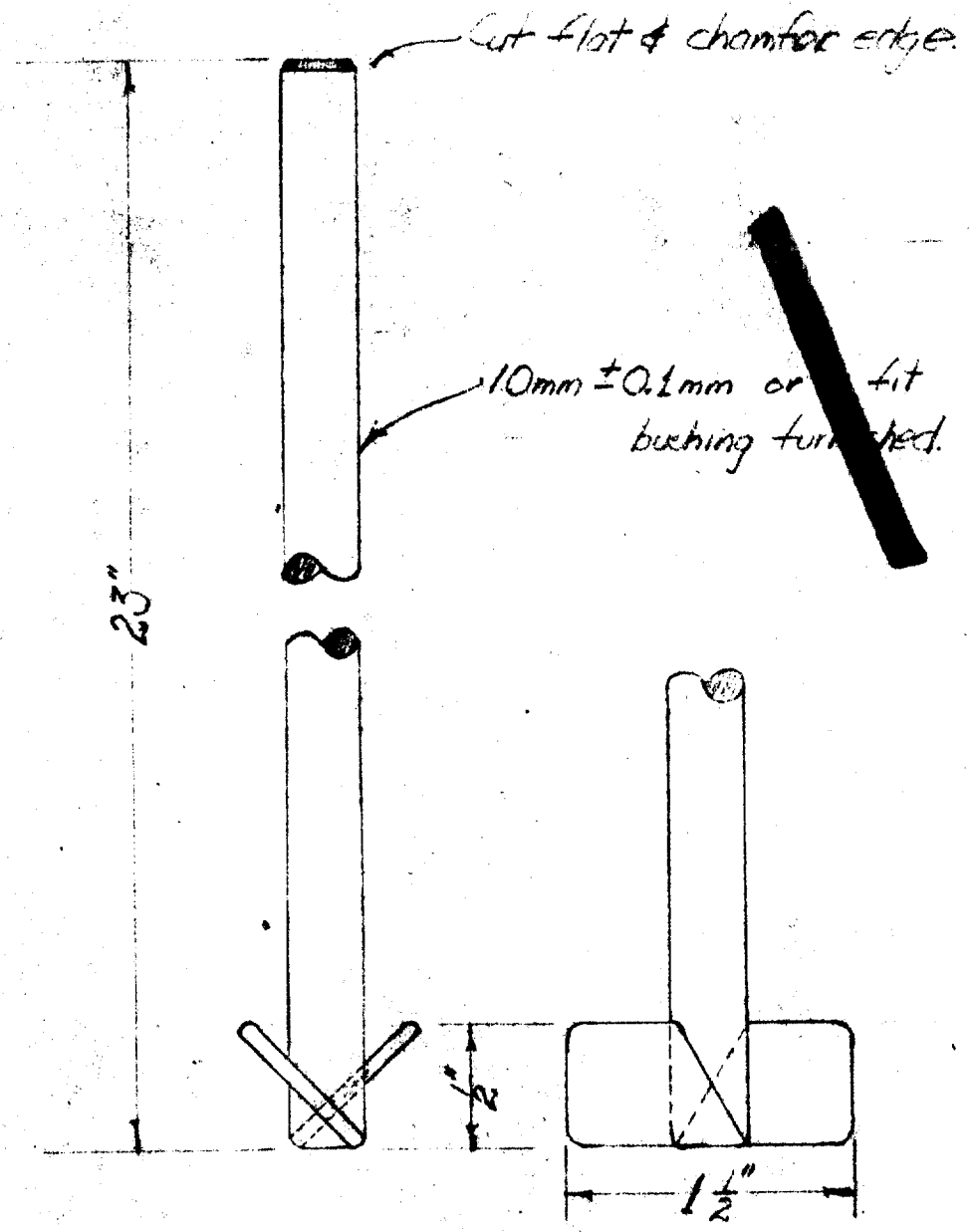
UNCLASSIFIED

0110

9-17-65 MCB

Stirrer Boiler
Part No. 2870
Material Glass, Pyrex
One Required
Scale 1"=1"

UNCLASSIFIED



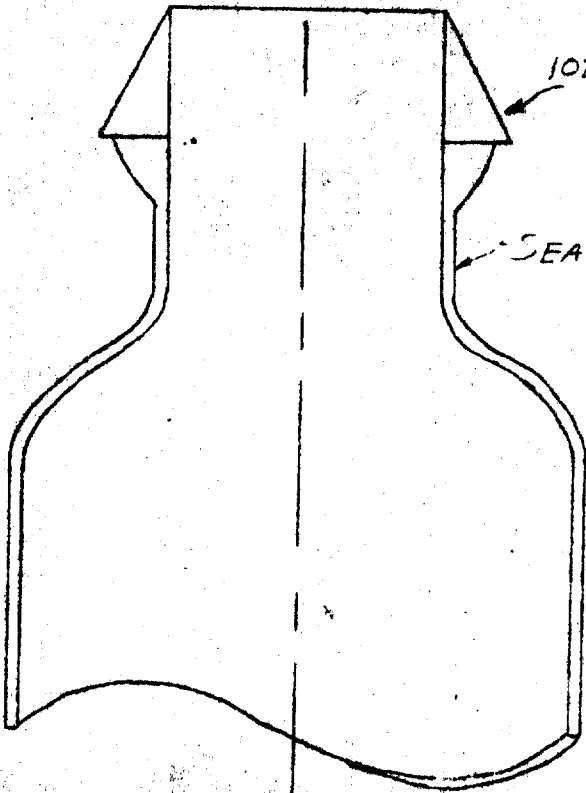
UNCLASSIFIED

2870

Checked 4-1-70
907 40

REAGENT RESERYOIR
PART No. 311
PYREX GLASS

UNCLASSIFIED

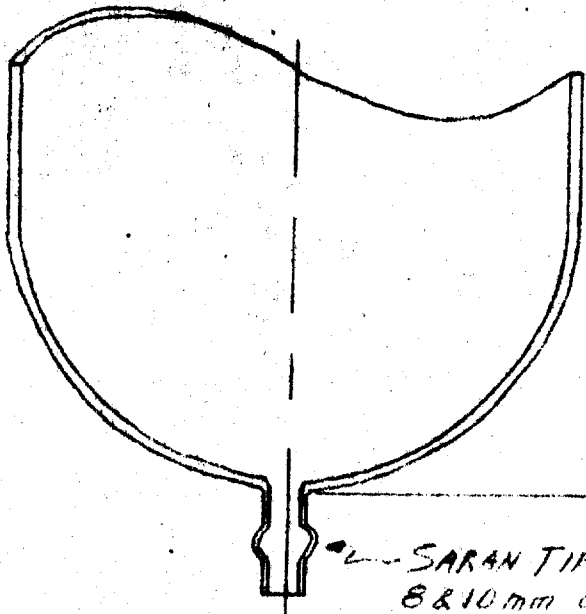


102/75 Semi-ball MALE

SEAL AS CLOSE AS PRACTICAL

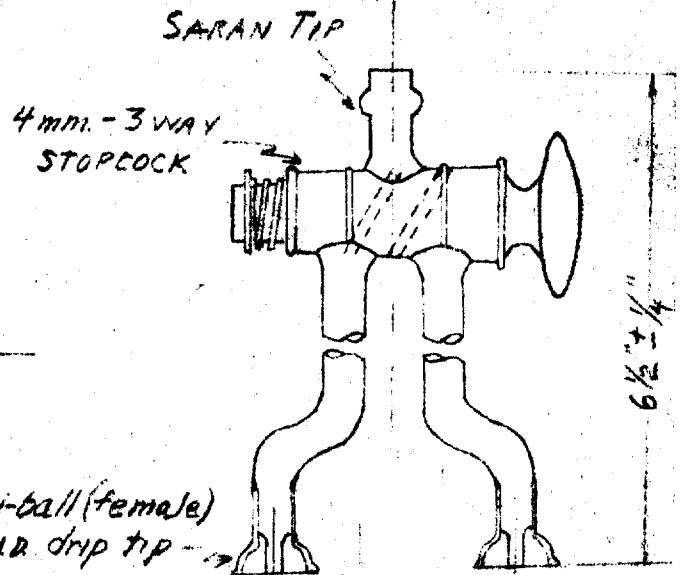
6" O.D. PYREX TUBING
WALL 1/4" + 1/16
- 1/32

16" ± 1"



SARAN TIP
8 & 10 mm od.

18/9 semi-ball (female)
with 3mm I.D. drip tip



SARAN TIP

4mm. - 3 WAY
STOPCOCK

6 1/2" ± 1/4"

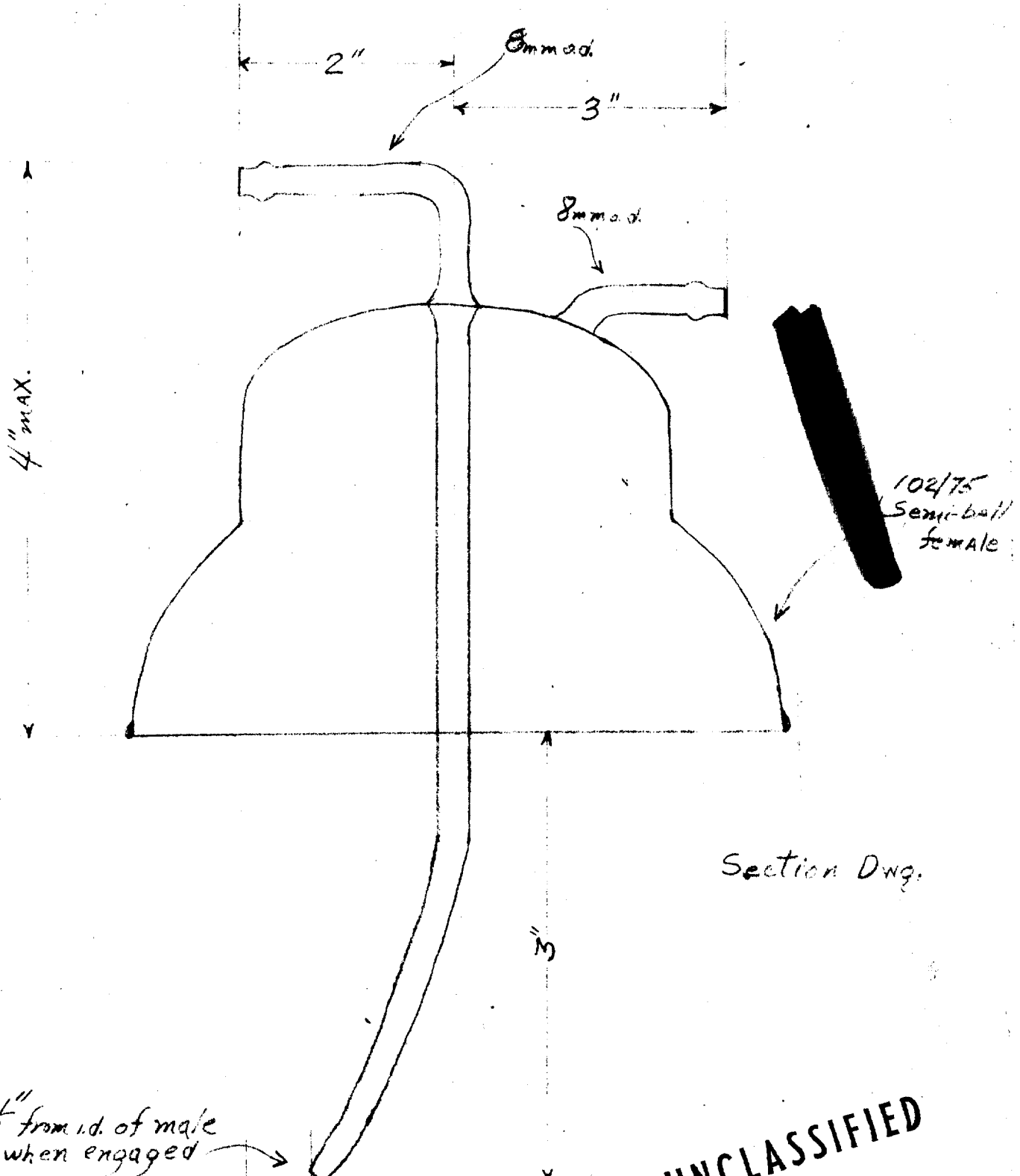
UNCLASSIFIED

9-19-45 JCB

UNCLASSIFIED

Reagent Reservoir Cap.
Part No. 2320
Pyrex Glass

One Part per Apparatus



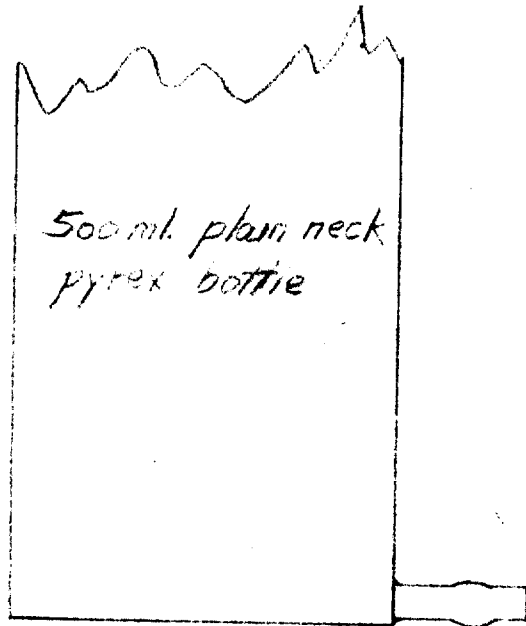
Section Dwg.

UNCLASSIFIED

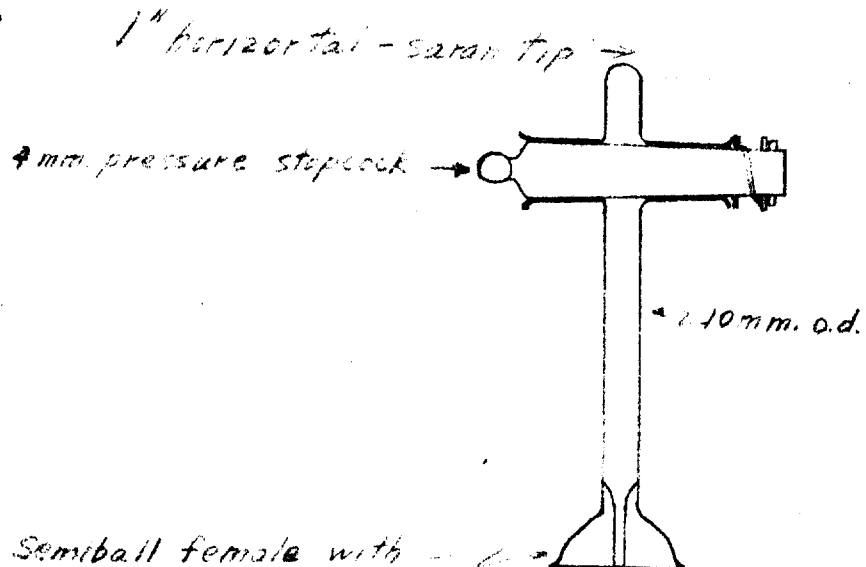
4-23-45 Redesign
JBG

NITRIC ACID RESERVOIR
PART NO. 331
PYREX GLASS

UNCLAS



1" Saran Tip
8mm & 10mm o.d.



10/7 Semiball female with
3mm (i.d.) drip tip

6"

0110

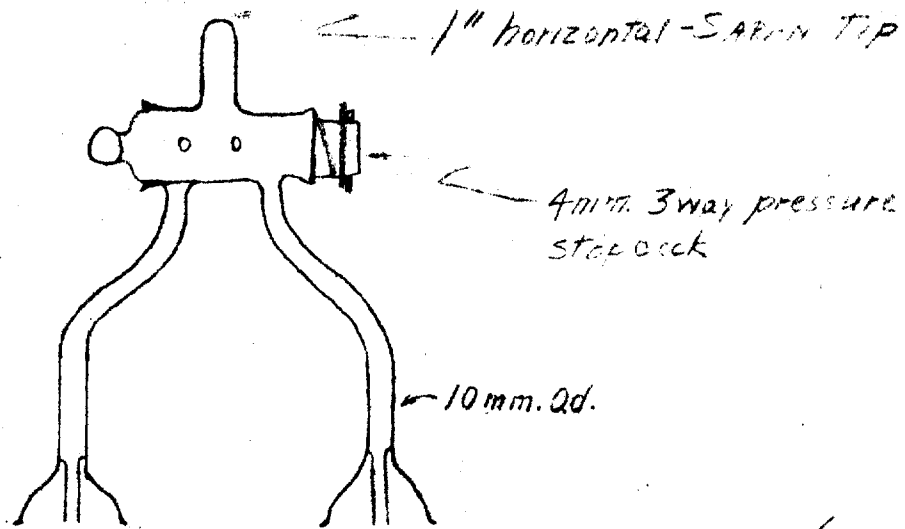
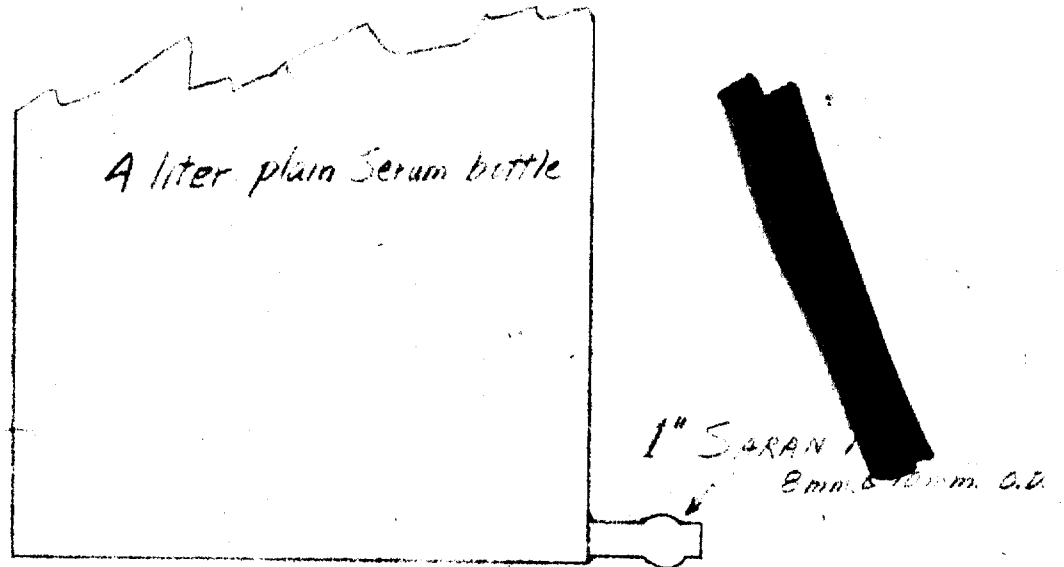
PAGE 35

UNCLASSIFIED

9-17-45 AOL

ETHER RESERVOIR
PART NO. 2341
PYREX GLASS

UNCLASSIFIED



18/9 Semiball (female)
with 3mm. (I.D.) slip tip

SECRET

UNCLASSIFIED

9-19-45 100

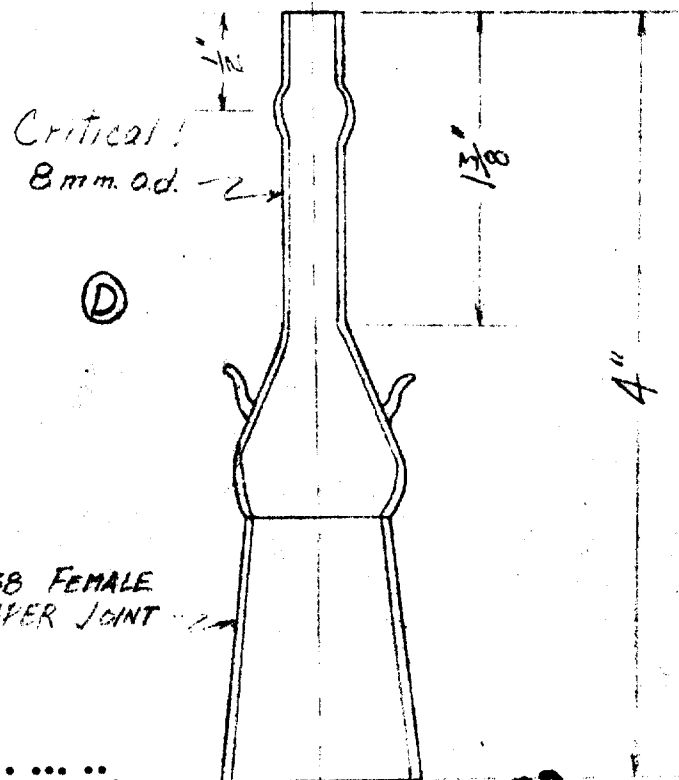
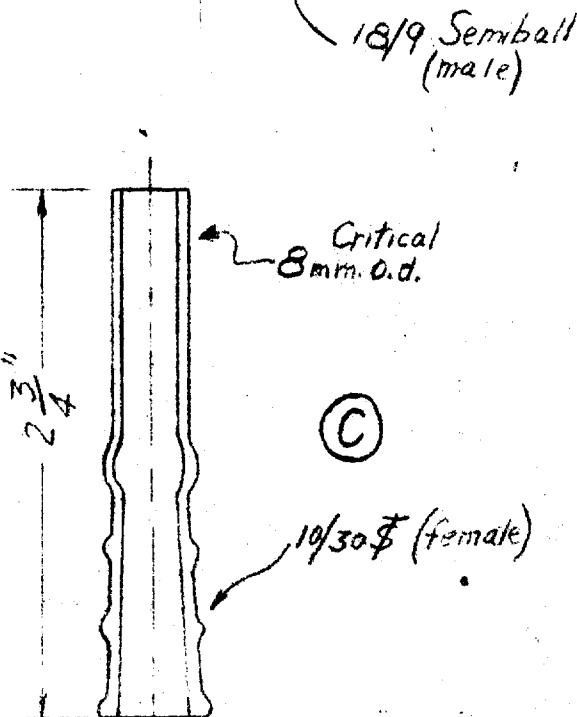
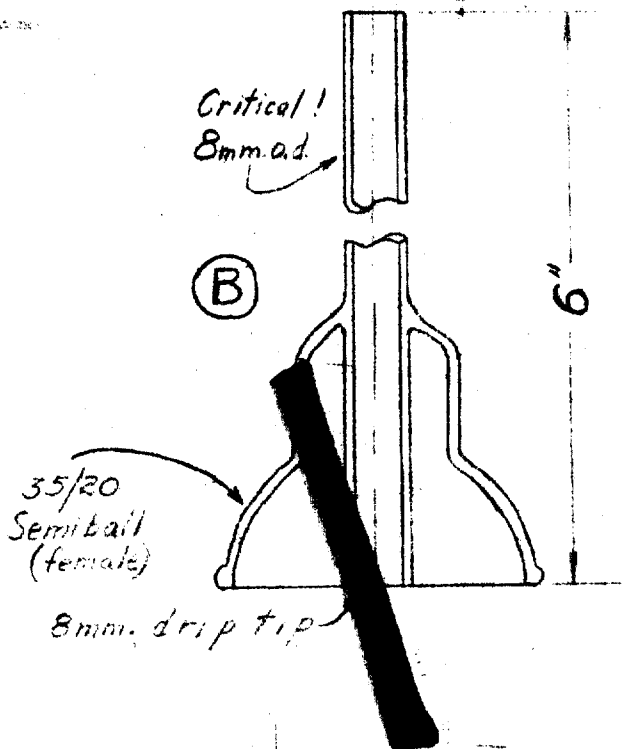
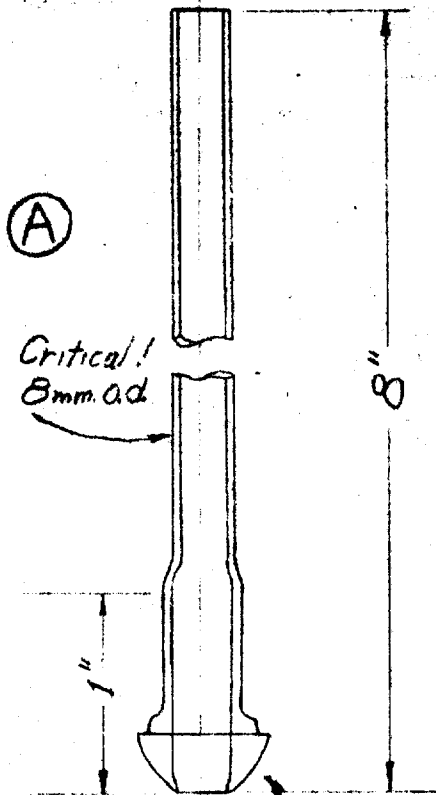
SARAN ADAPTERS

PYREX GLASS

PART NO. E-350-A-B-C-D

SECRET

UNCLASSIFIED



SECRET

PAGE 37

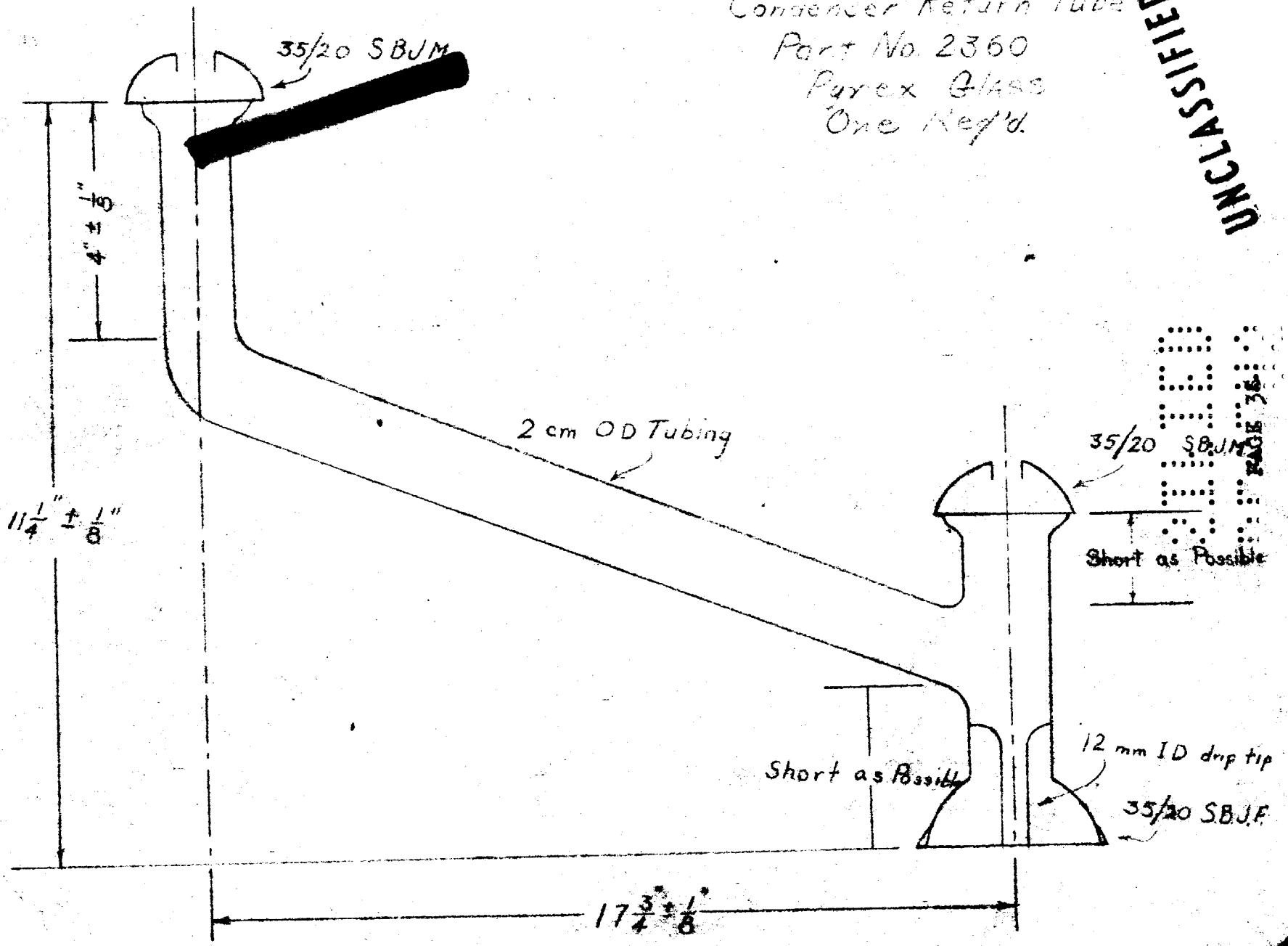
UNCLASSIFIED

4-19-45 ACI

UNCLASSIFIED

UNCLASSIFIED

Condenser Return Tube
Part No. 2360
Pyrex Glass
One Req'd.



35200
35200

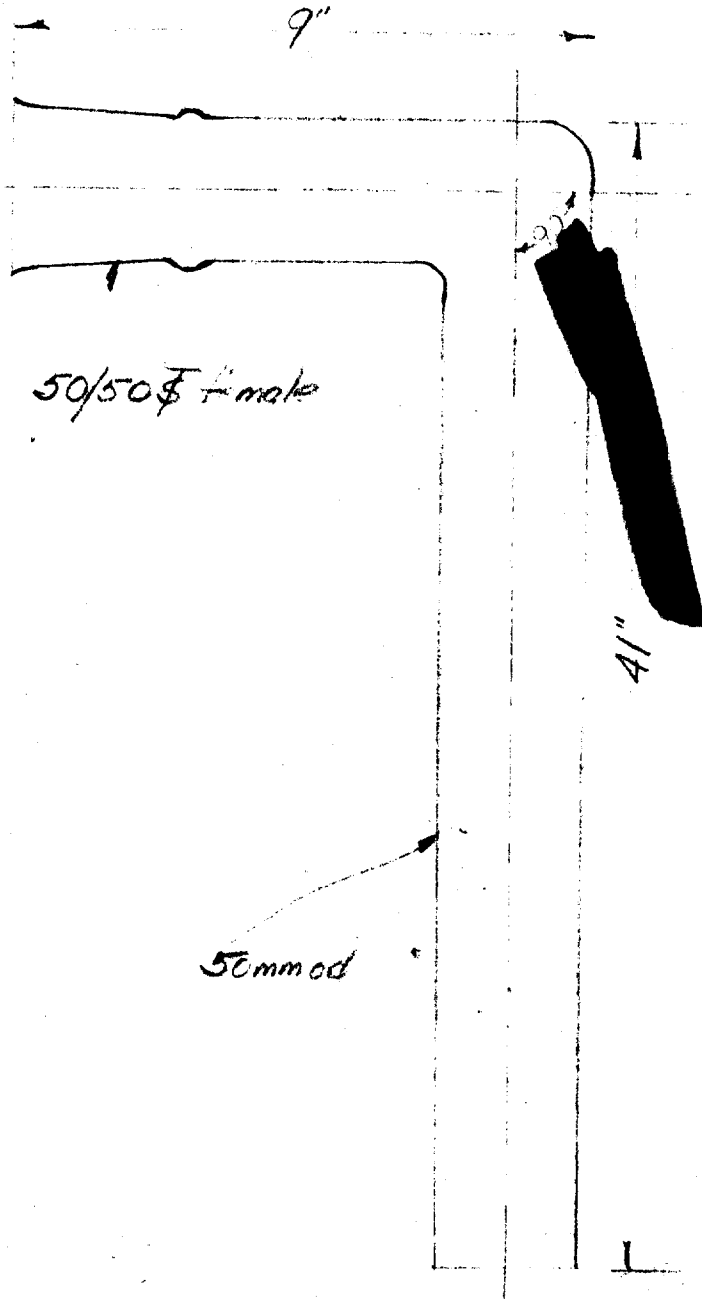
35200
35200

FACE 36

Ether Vapor Safety Tube
Part No. 2370
Pyrex Glass
One Req'd.

01100
01100

UNCLASSIFIED



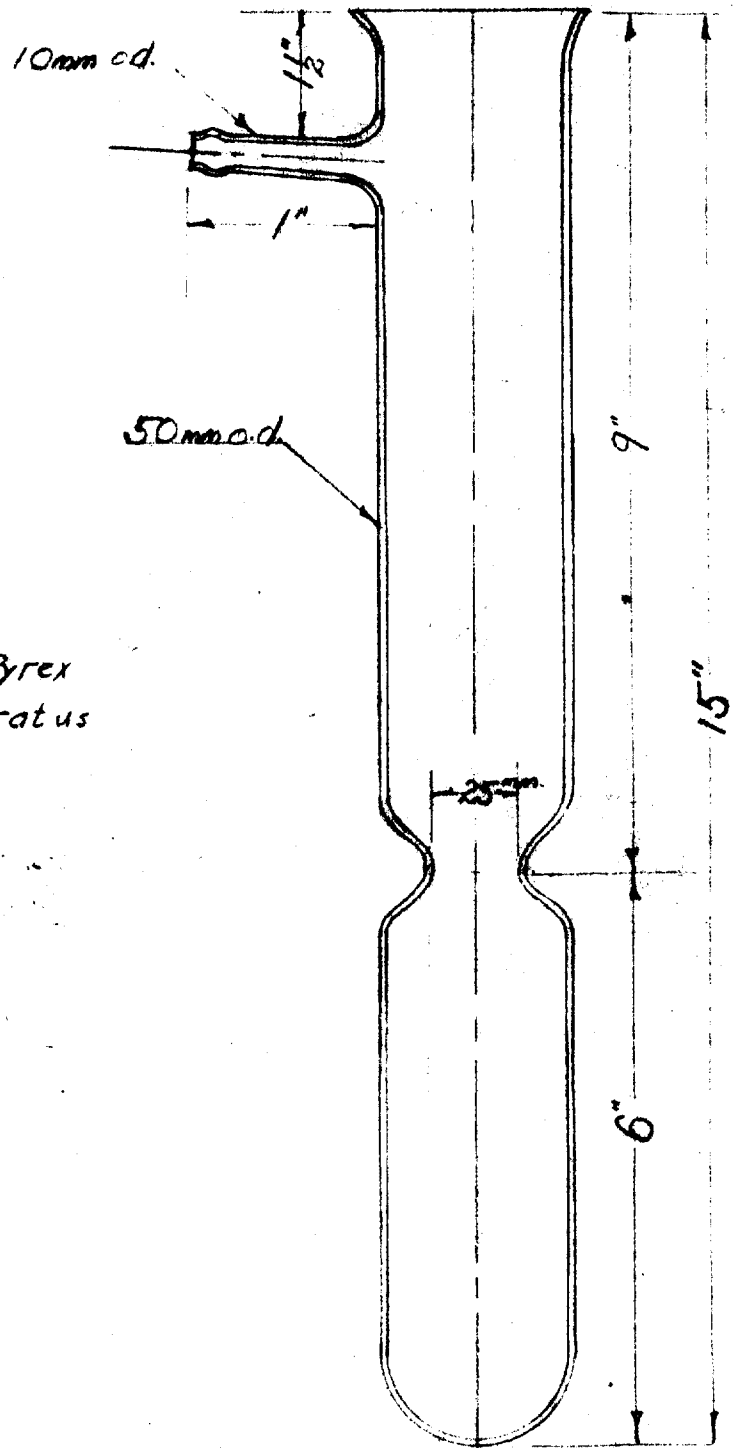
01100
01100
PAGE 79

UNCLASSIFIED

Revised 4/1/58
Ther

Sodium Hydroxide Trap
Part No 2410

UNCLASSIFIED



Material: Pyrex
3 per Apparatus

Scale 1/2" = 1"

UNCLASSIFIED

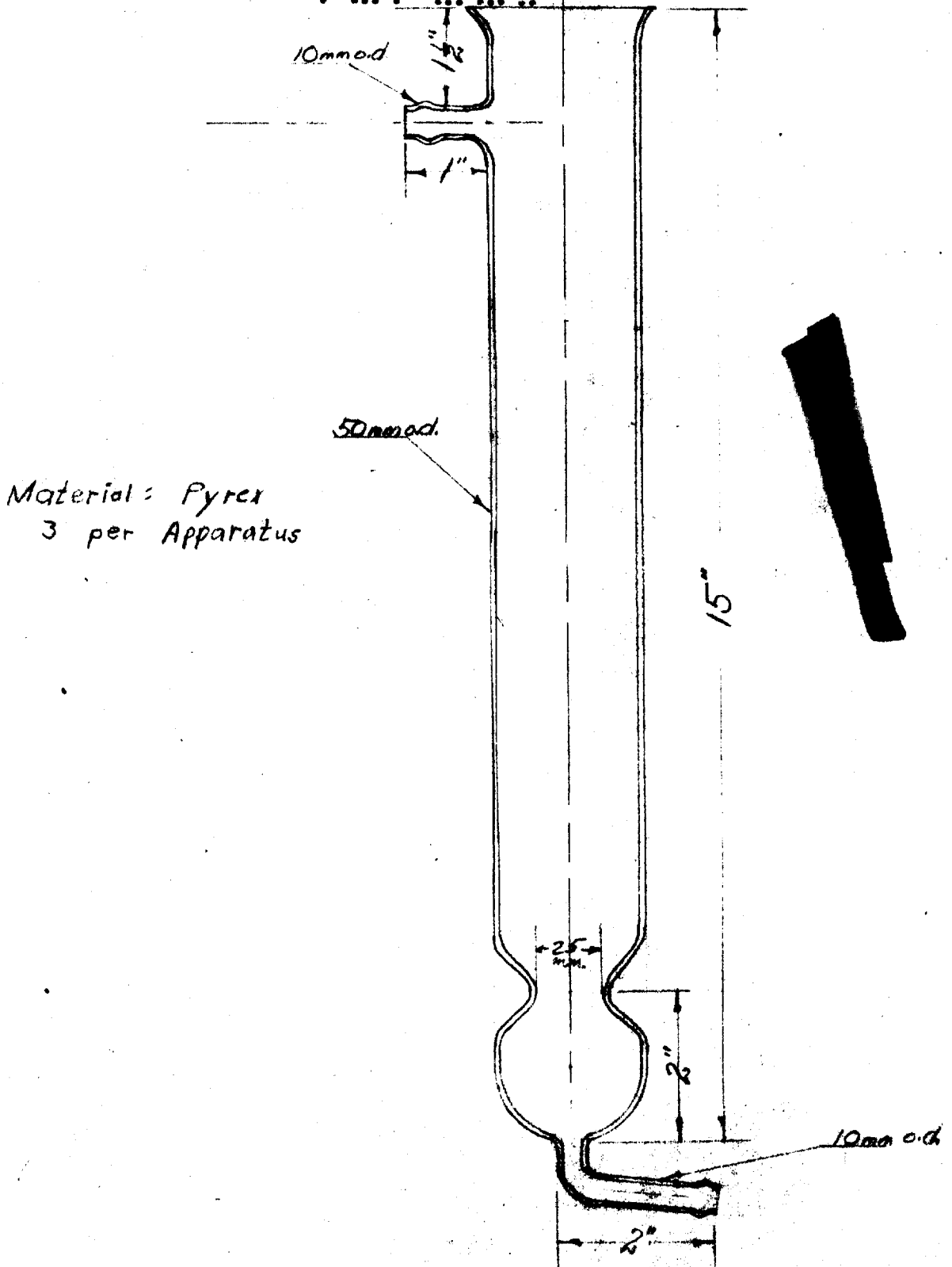
UNCLASSIFIED D

PAGE NO

CNC DEC
4/24/45

Spray Trap
Part No. 2420

UNCLASSIFIED



Material: Pyrex
3 per Apparatus

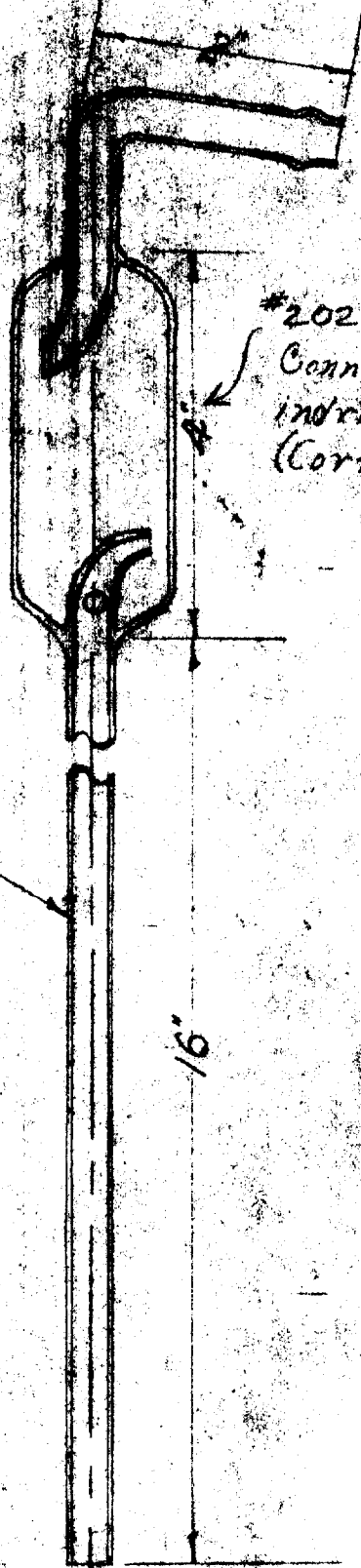
Scale: 1/2" = 1"

UNCLASSIFIED

D

Kjeldahl Trap
Part No 2430

UNCLASSIFIED



Material: Pyrex
3 per Apparatus

#2020 B... ORYYB
Connector (Cylindrical, Kjeldahl
(Corning Co. No.)

12mm

16"

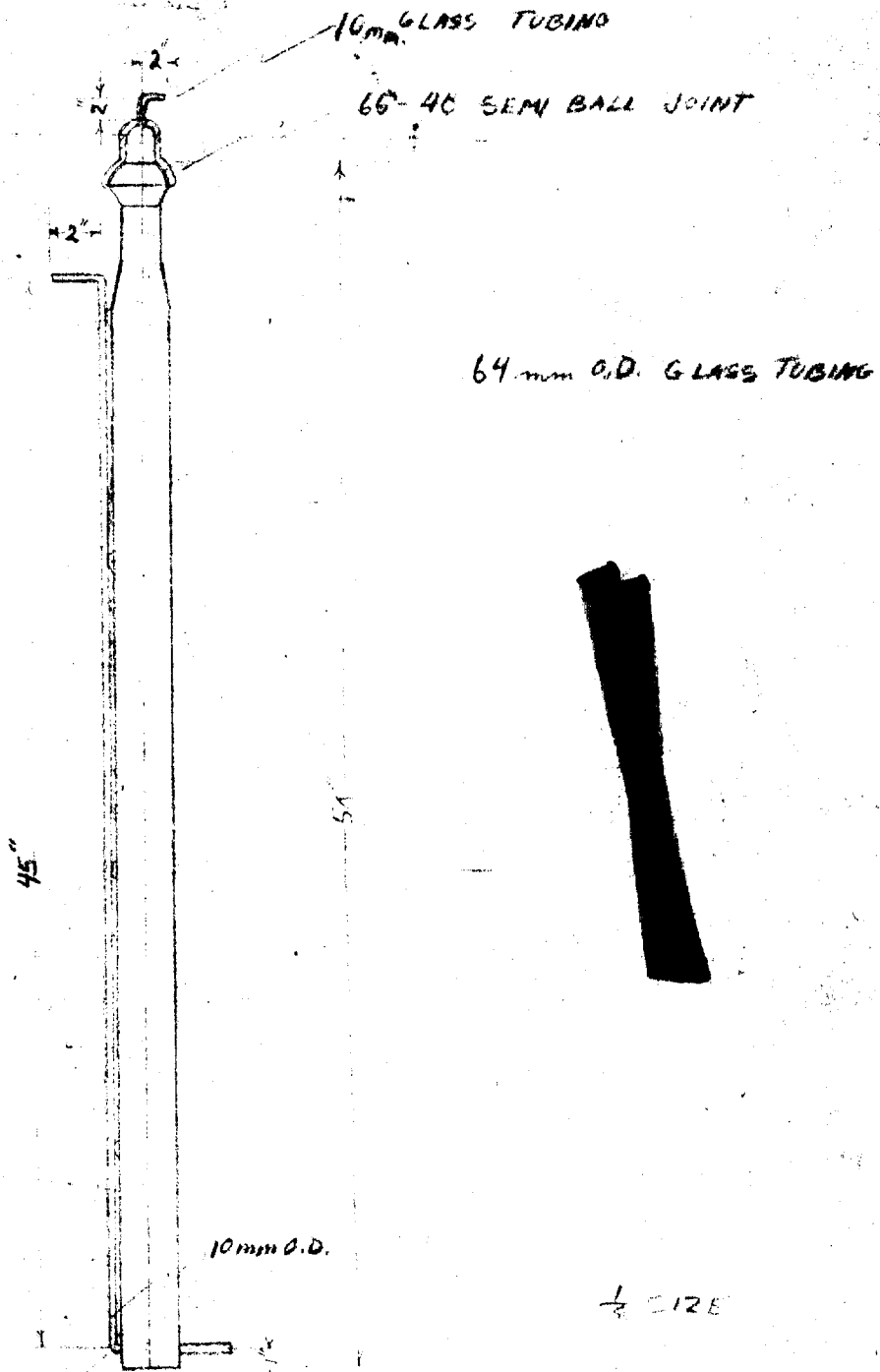
Scale 1/2" = 1"

UNCLASSIFIED

D

BUBBLER
PART NO. 2442

UNCLASSIFIED



ATTACH TO OUTSIDE
OF CYLINDER

MAKE BELG (FOR RUBBER JOINT) TIPS
ON ALL 10MM TUBE ENDS

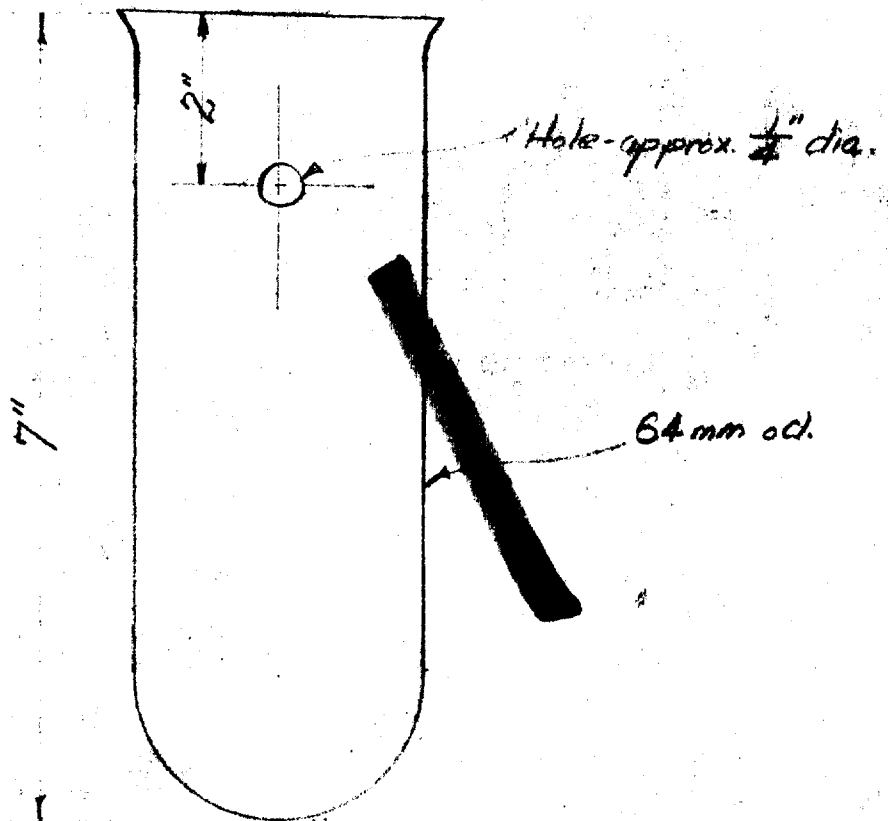
UNCLASSIFIED

SECRET

Liquid Drip Catchers
Drawing No. 6-4
Part No 2470.

UNCLASSIFIED

Material: Pyrex
4 Per Apparatus



SECRET

UNCLASSIFIED

Scale $\frac{1}{2}$ " = 1"

D

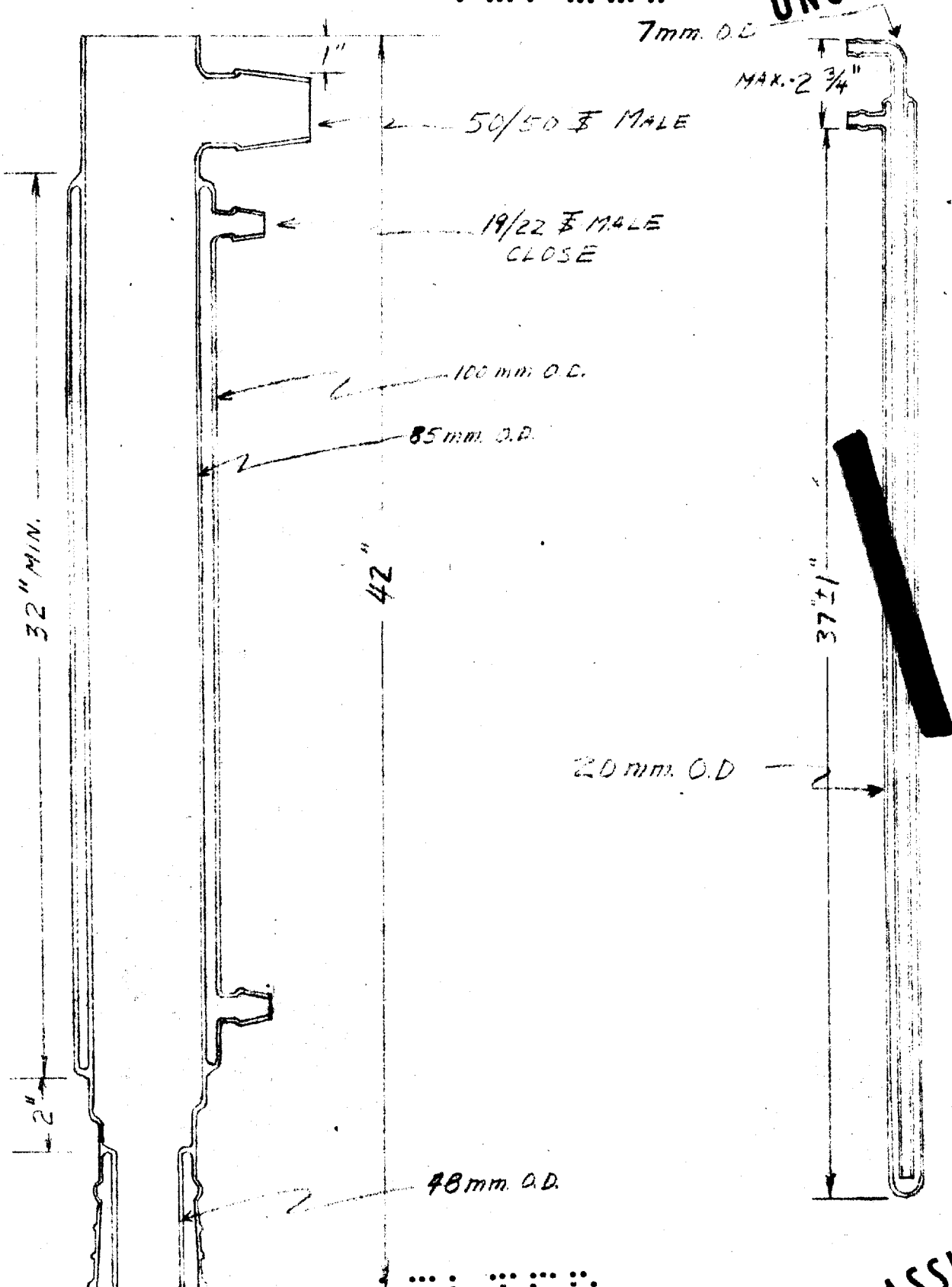
41

CONDENSER & COLD FINGER

PART NOS. 2519 & 2520

PYREX 7745

UNCLASSIFIED



SECRET

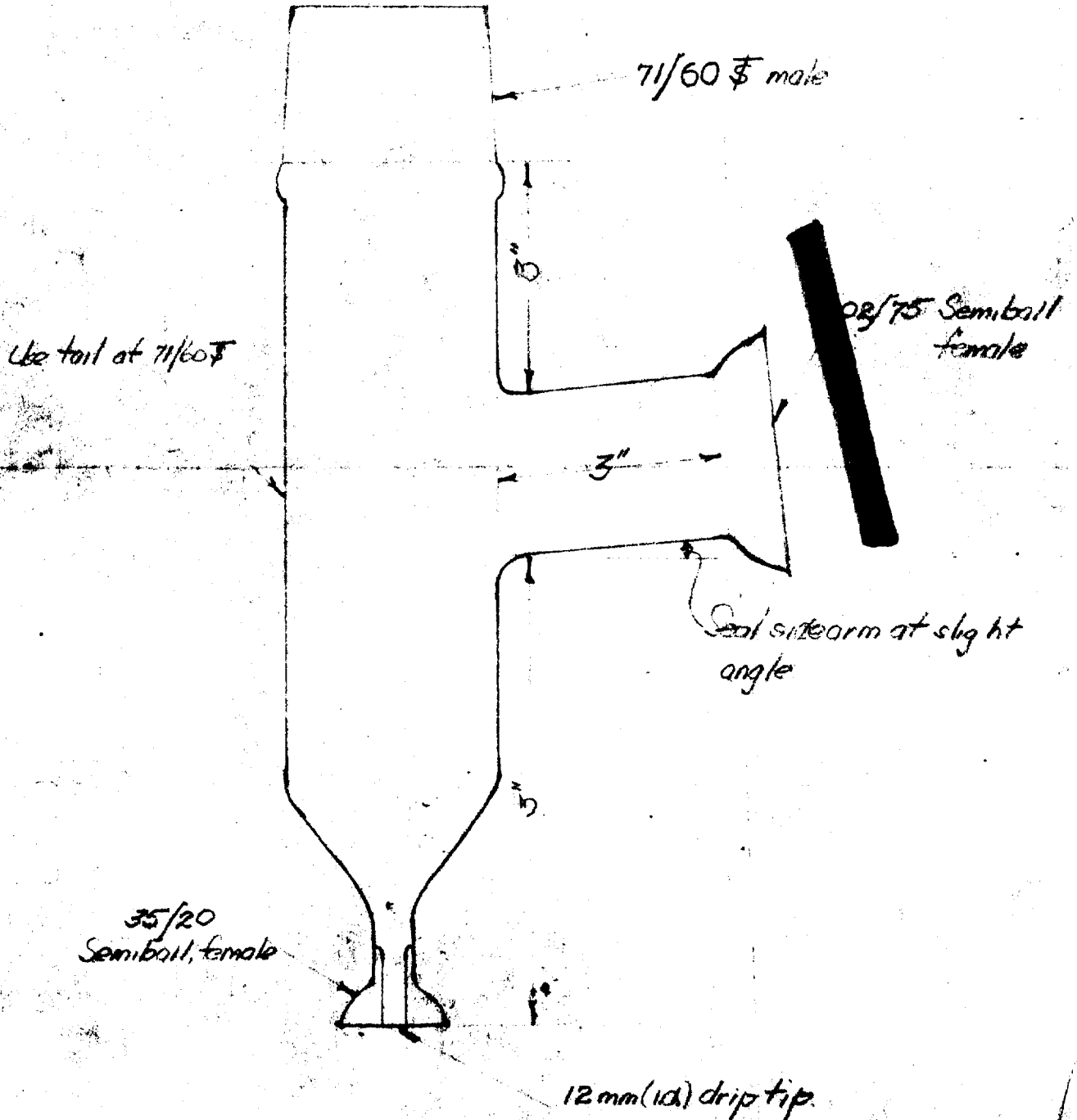
PAGE 45

UNCLASSIFIED
19-45 ACB

UNCLASSIFIED

Liquid Vapor Tee
Part No. 2531
1/206-1/26/45
Pyrex Glass
1 Rqd

UNCLASSIFIED



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PAGE 16

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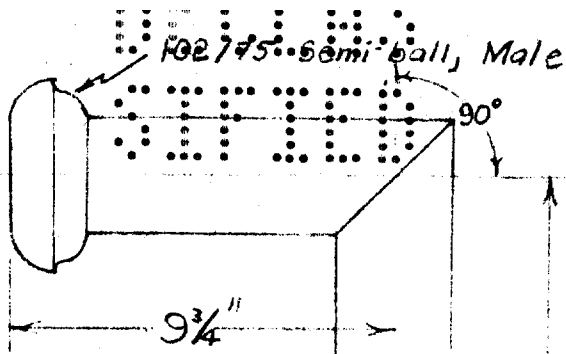
Revised 4/23/45
Thos B

UNCLASSIFIED

Et_2O Vapor Tube
Part No. 2540

Material: Pyrex
1 per Apparatus

80mm tube



19 3/4"

102/75
Semiball

42"



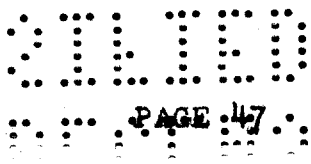
D

22 1/4"

102/75 Semiball
Female

Scale: 1" = 5"

Tolerance: $\pm 1/16$ " on
all dimensions

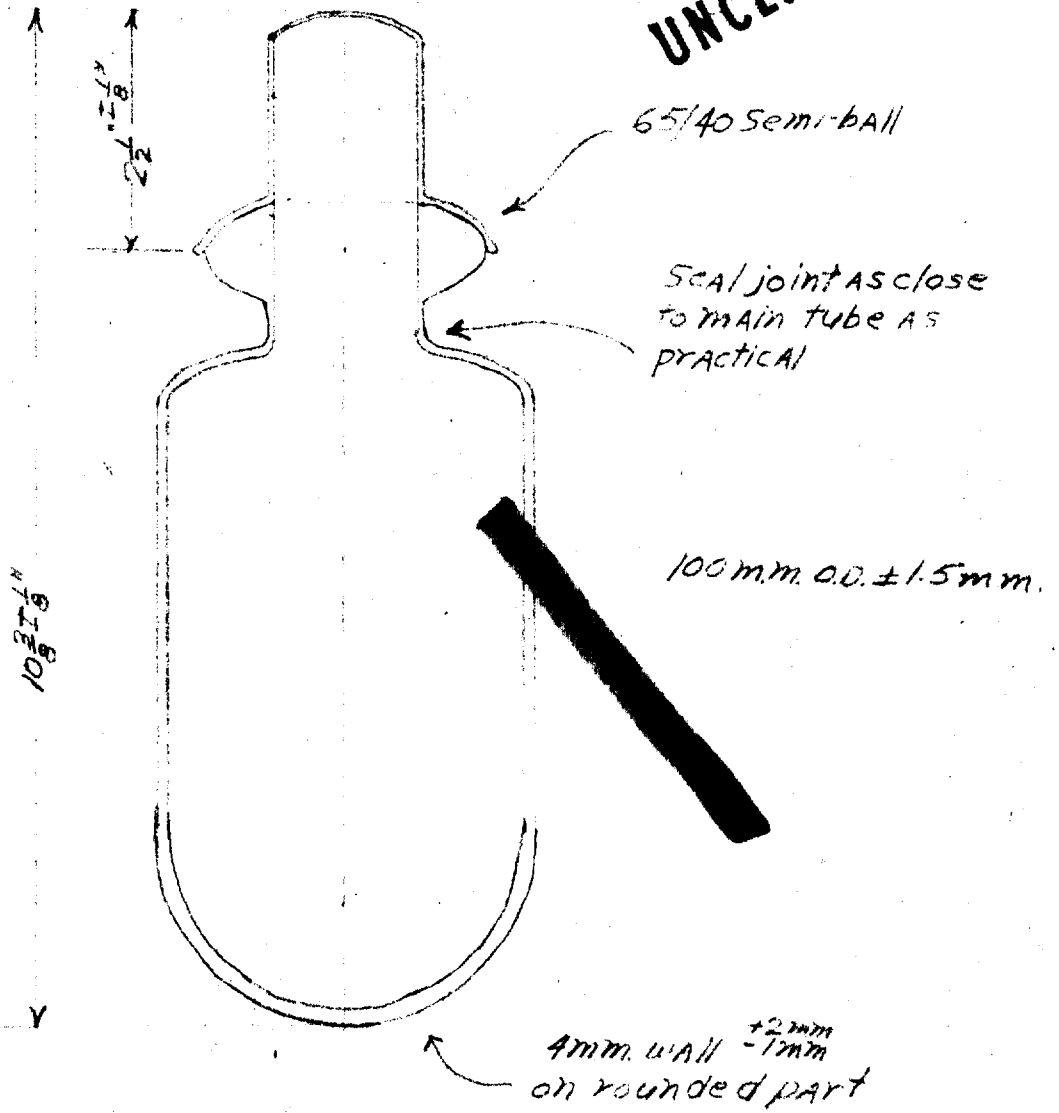


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UNCLASSIFIED 4/24/75
E.E.C.

U.S. GOVERNMENT
PRINTING OFFICE

UNCLASSIFIED



SMALL STORAGE BOTTLE
Part. No. 2610
Pyrex Glass
Four Parts per Apparatus

U.S. GOVERNMENT
PRINTING OFFICE

UNCLASSIFIED

4-23-45 Resimension
105

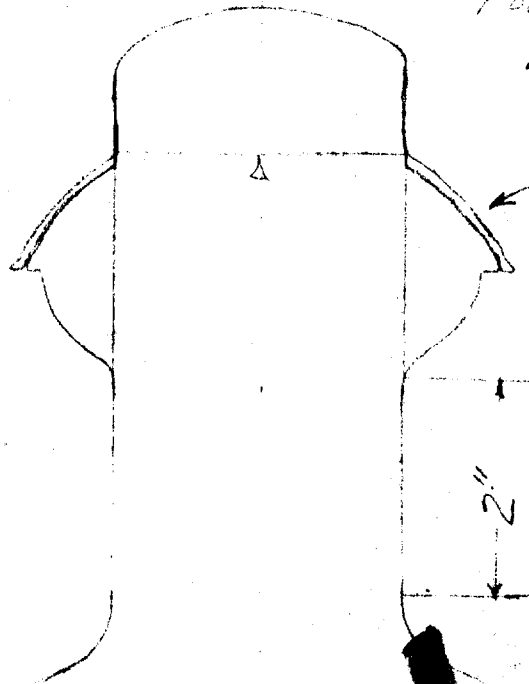
REF ID: A66071

UNCLASSIFIED

Transfer Bottle
Drwg. No. 2630

Pyrex Glass
Four Parts per
Apparatus

65/40
Semiball.



This dimension
critical!

$8 \frac{1}{8}$ "
 $8 \frac{1}{8}$ "

$8 \frac{1}{8}$ "
 $8 \frac{1}{8}$ "

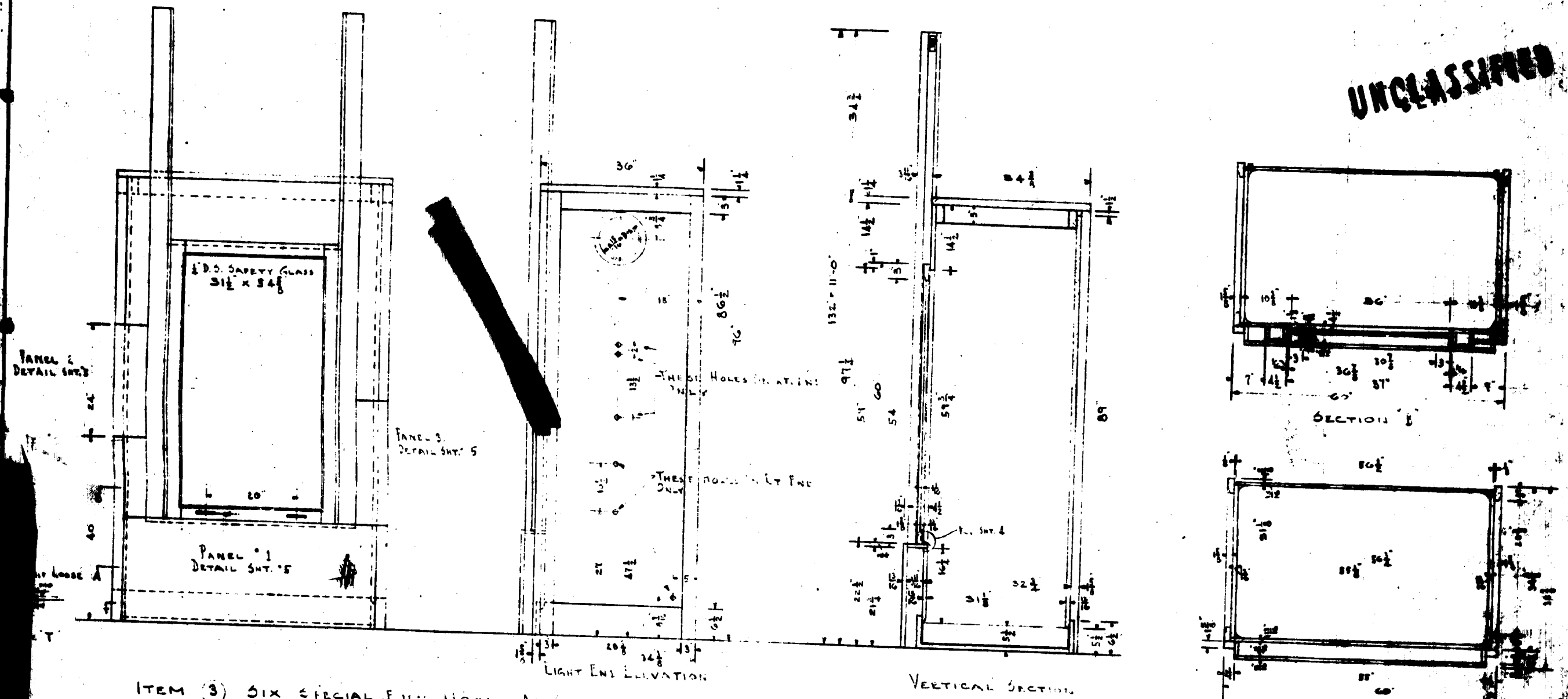
1 liter pyrex v.o. flask

UNCLASSIFIED

REF ID: A66071

4-23-45 Redimension
JBC

UNCLASSIFIED



ITEM ③ SIX SPECIAL FINE HOLES AS SHOWN

FINISH NOTE:
FINISH INTERIOR HIGH GLOSS WHITE ENAMEL
FINISH EXTERIOR GRAY

NOTE:
THESE HOLES TO BE SHIPPED RECESSED INTO
FRONT ASSEMBLY, TOP, TOP INTERNAL, END FLANGE,
BOTTOM PAN, & SACK.

PAGE 50

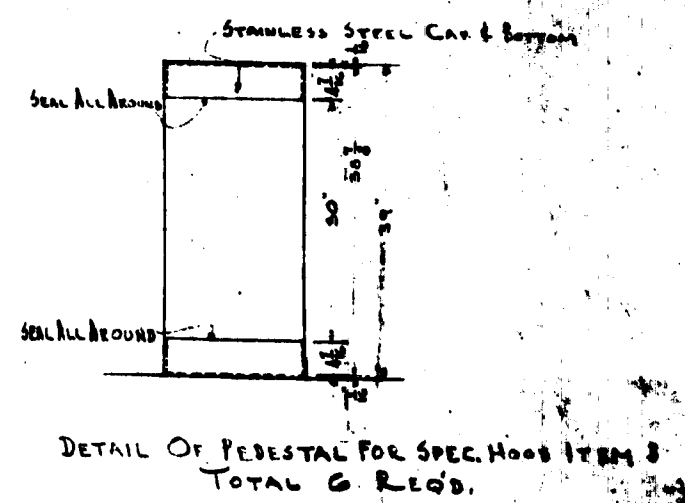
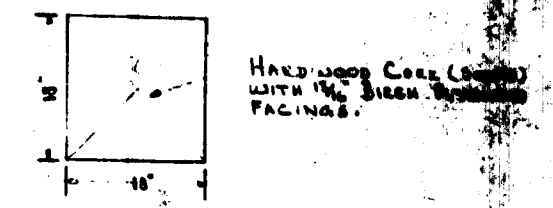
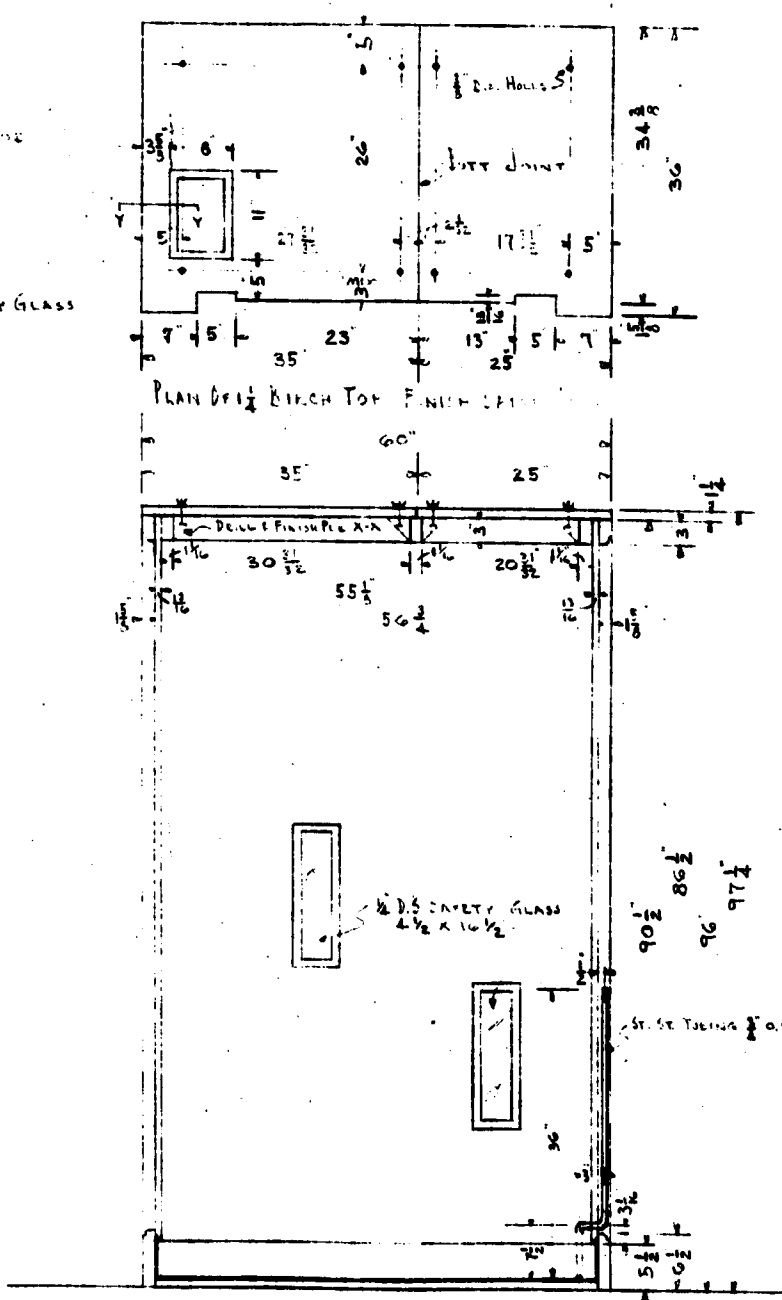
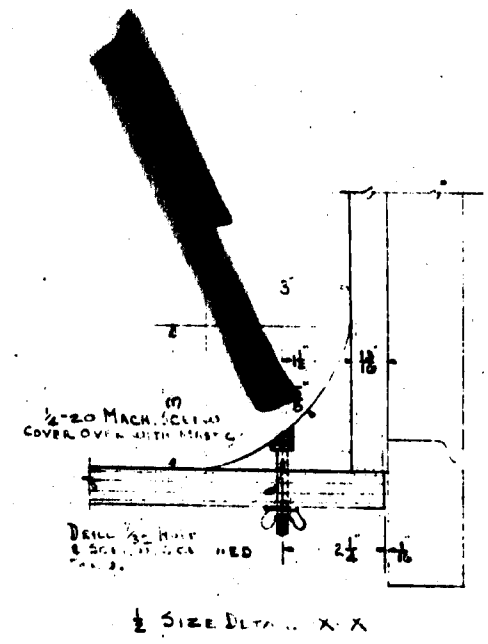
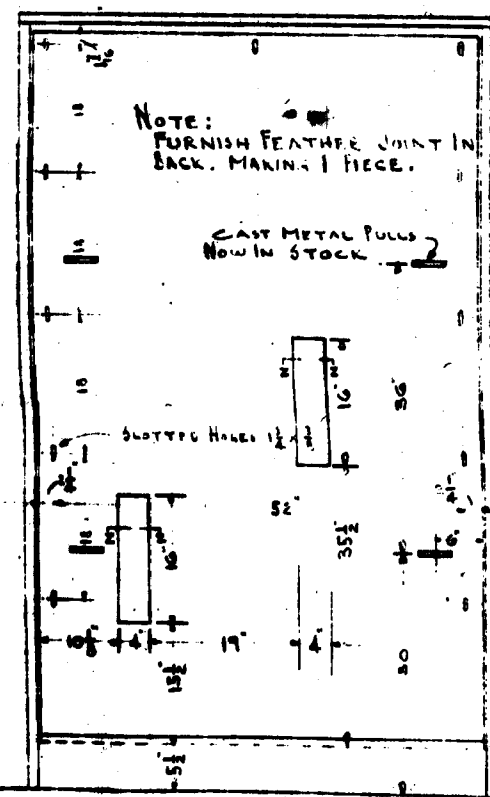
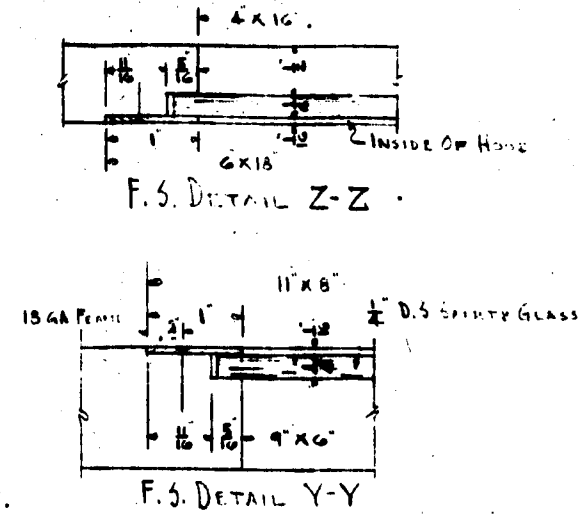
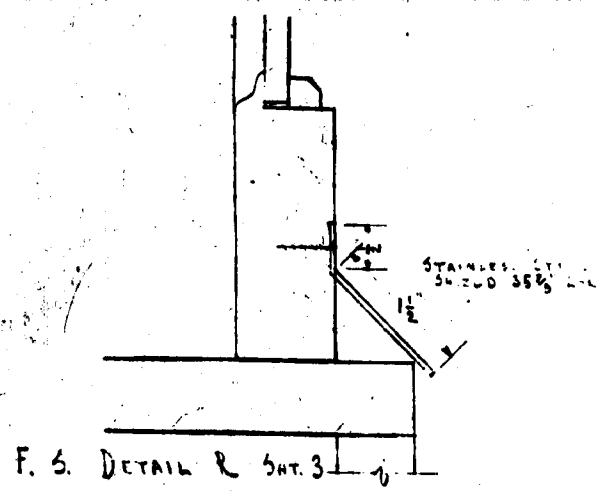
UNCLASSIFIED

REVISED	DATE				REVISED	DATE			
	BY	CHKD	APP'D	DATE		BY	CHKD	APP'D	DATE

KEWAUNEE MANUFACTURING COMPANY
Adrian, Michigan

W-3338

UNCLASSIFIED



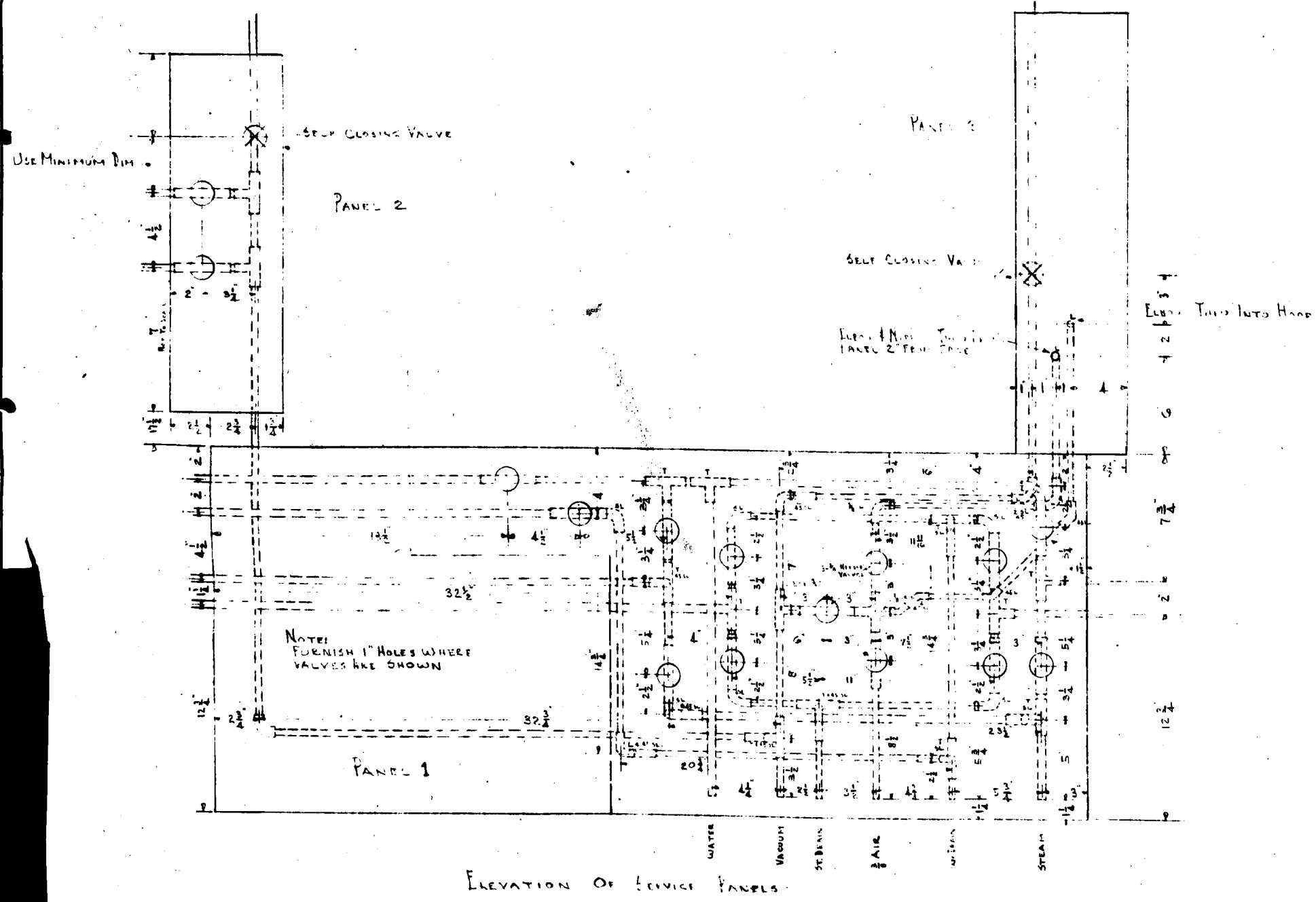
UNCLASSIFIED

PLANNING	DESIGNED	BLUE PRINTS				REVISIONS			
		NUMBER	DATE	BY	CHKD	NUMBER	DATE	BY	CHKD

KEWAUNEE MANUFACTURING COMPANY
Adrian, Michigan

CUSTOMER	ORDER NUMBER
	U 3330

UNCLASSIFIED



UNCLASSIFIED

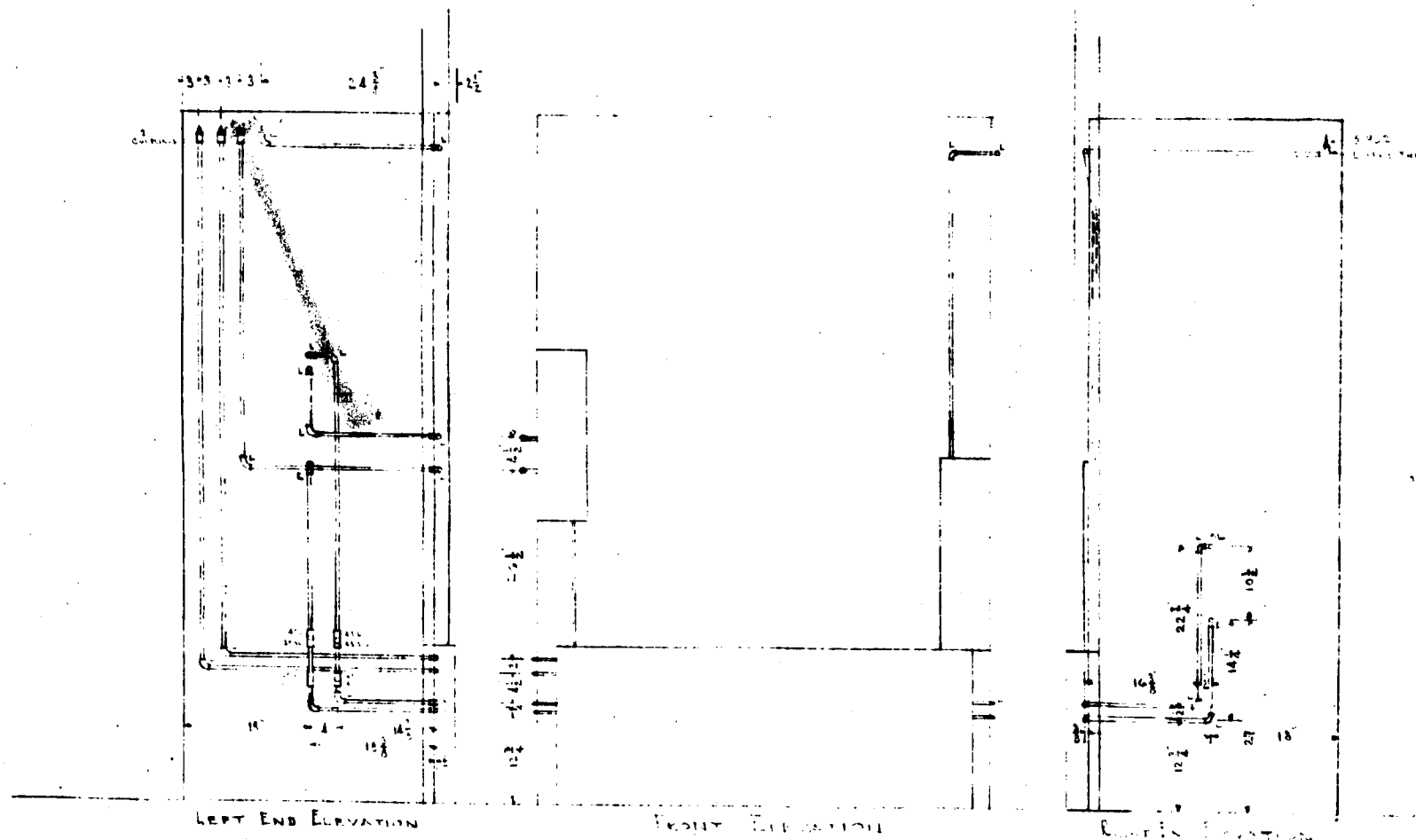
PAGE 52

PLUMBING FIXTURES	BLUE PRINTS			REVISIONS		
	PRINTED	COPIES	PURPOSE	REVISED	DATE	CHECK
HARDWARE	1	3	REV.			

KEWAUNEE MANUFACTURING COMPANY
Adrian, Michigan

CUSTOMER	ORDER NUMBER	DRAWN BY	DATE	SCALE
	U-3338			

UNCLASSIFIED



NOTE:
FURNISH ALL LINES 24" INSIDE
OF HOOD

DETAIL OF HOOD LINE OUTSIDE OF CASE

UNCLASSIFIED

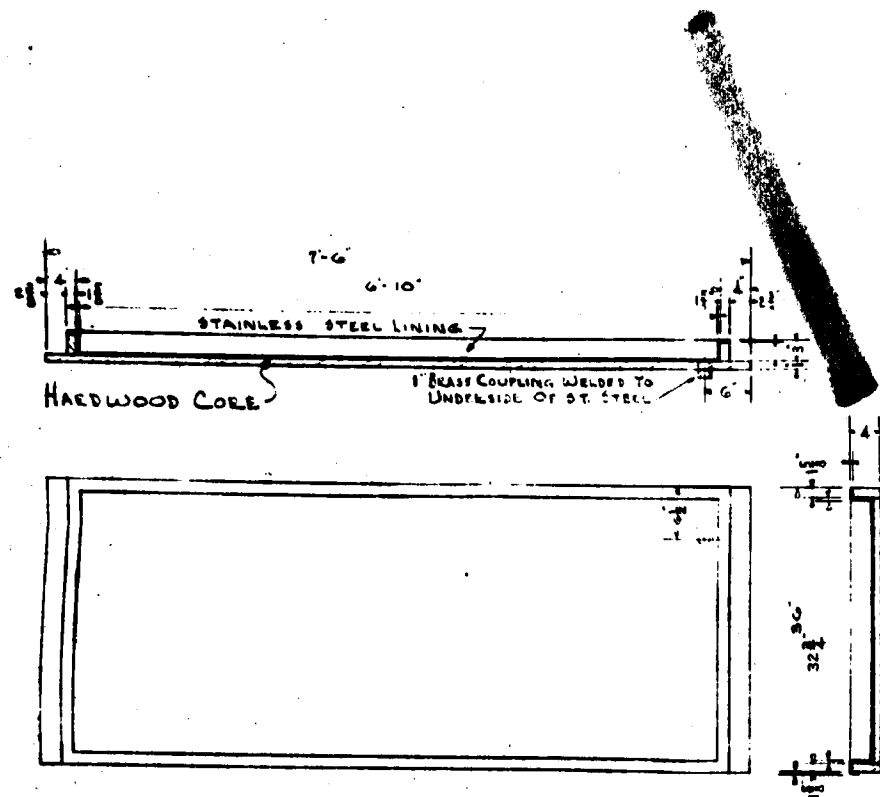
PAGE 53

PLUMBING FIXTURES	BLUE PRINTS						REVISIONS						CUSTOMER	ORDER NUMBER	DRAWN BY	DATE	SCALE
	PRINTED	COPIES	PURPOSE	PRINTED	COPIES	PURPOSE	REVISED	DATE	CHECK	REVISED	DATE	CHECK					

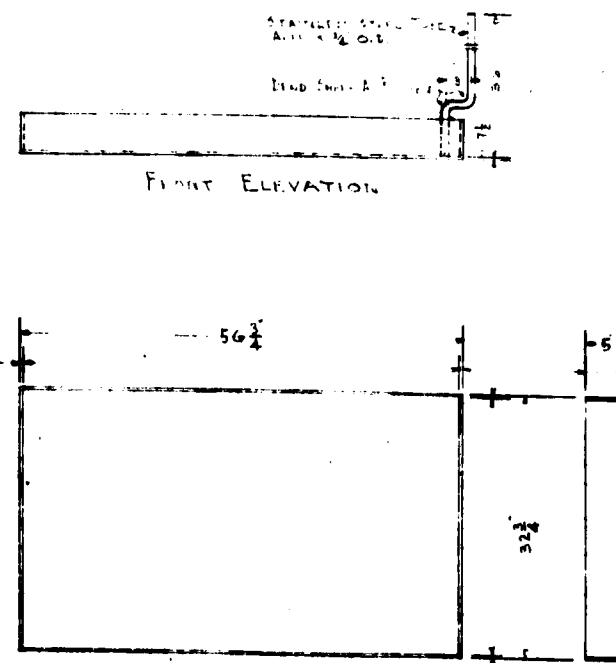
KEWAUNEE MANUFACTURING COMPANY
Adrian, Michigan

CUSTOMER: _____
ORDER NUMBER: 60-2332
DRAWN BY: M. W. L. P.
DATE: 10.15.55
SCALE: 1/8" = 1' FT.

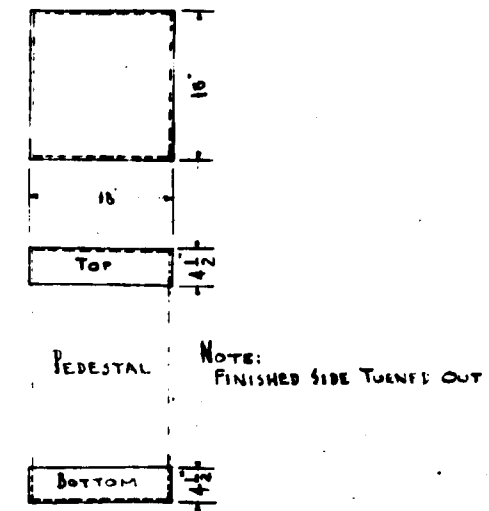
UNCLASSIFIED



DETAIL OF STAINLESS STEEL OVER HARDWOOD CORE TOP
TOTAL 3 REQD. FOR TYPE RC & FC HOODS



DETAIL OF STAINLESS STEEL TUB
TOTAL 6 REQD. FOR SPEC. HOOD



DETAIL OF STAINLESS STEEL PEDESTAL
TOTAL 6 ASSEMBLIES REQD.

PAGE 54

UNCLASSIFIED

PLANNED PURPOSE	BLANK PARTS				REVISIONS			
	DATE	QUANTITY	REVISION	DATE	DATE	QUANTITY	REVISION	DATE

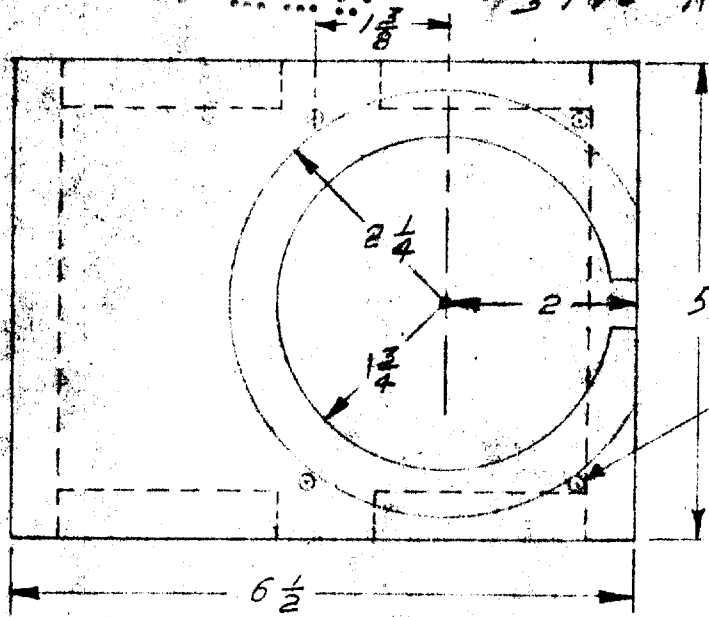
KEWAUNEE MANUFACTURING COMPANY
Adrian, Michigan

CUSTOMER	ORDER NUMBER	DATE	BY	SCALE

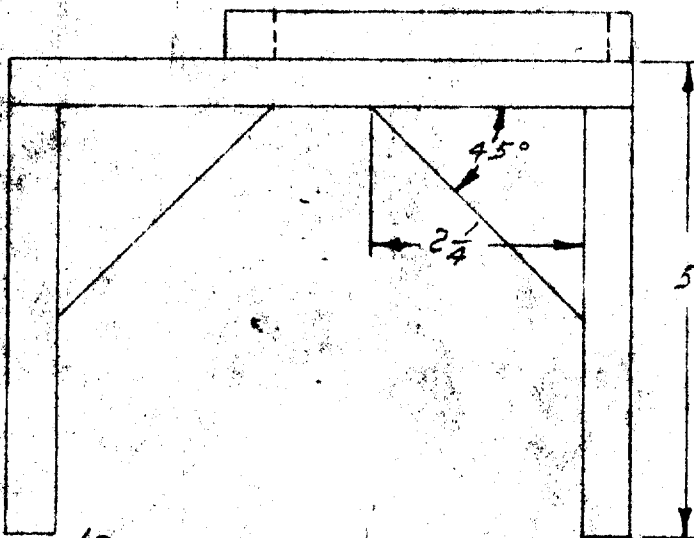
METRIC BOTTLE HOLDER

3410-A

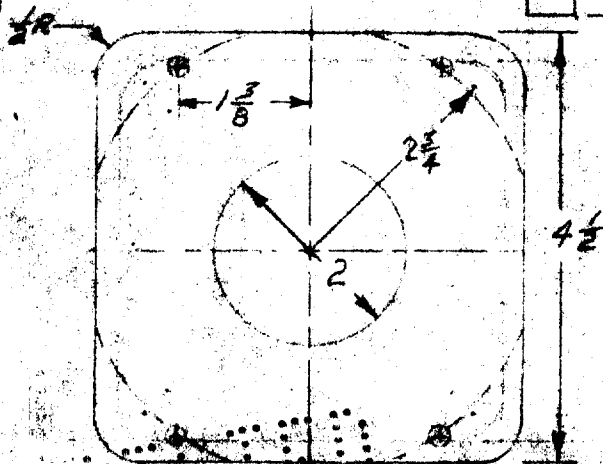
UNCLASSIFIED



DRILL HOLES $\frac{1}{8}$ " DIA.
 LOCATED ON $2\frac{1}{4}$ " DIA.
 CIRCLE



ALL PARTS MADE OF
 $\frac{1}{2}$ " PLYWOOD
 ALSO REQ'D 4 PCS.
 $\frac{1}{8}$ " ROUND BRASS ROD
 8" LONG THD 2" ON
 BOTH ENDS WITH $\frac{1}{8}$ -20
 DIE. (3410-B)



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SCALE - HALF

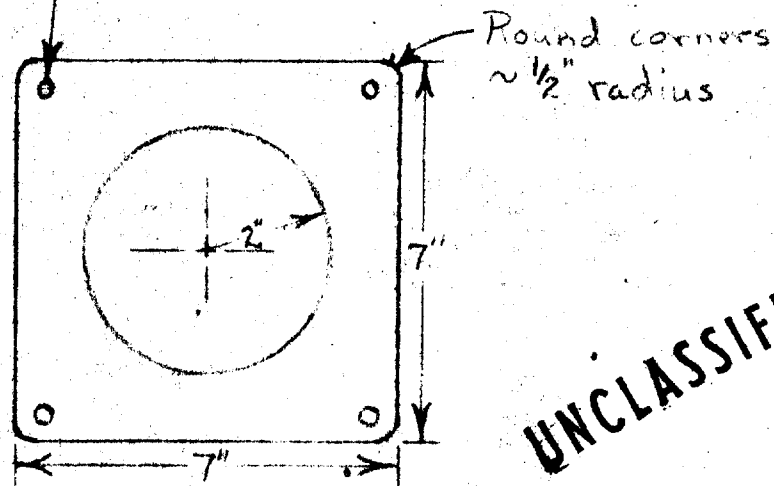
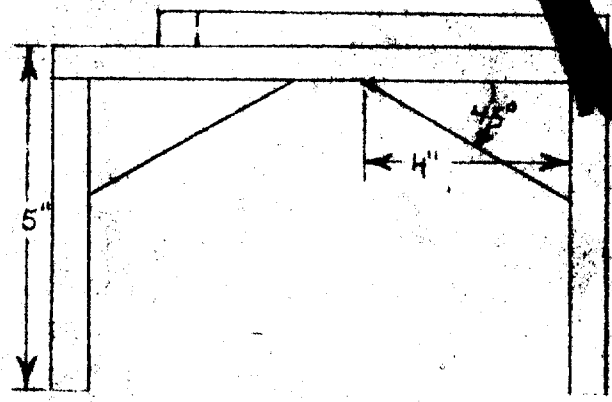
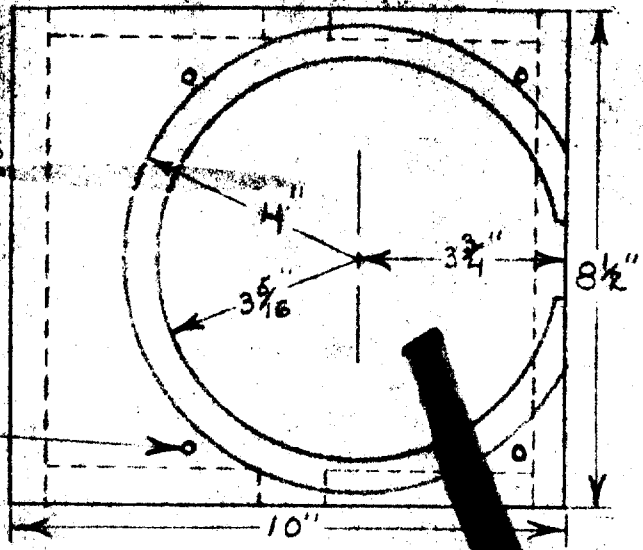
SECRET

Ether Bottle holder

3920-A

UNCLASSIFIED

4 Holes drill $\frac{1}{4}$ "
Holes lie at corners
of a 6" square
whose center
is concentric with
center of circles.



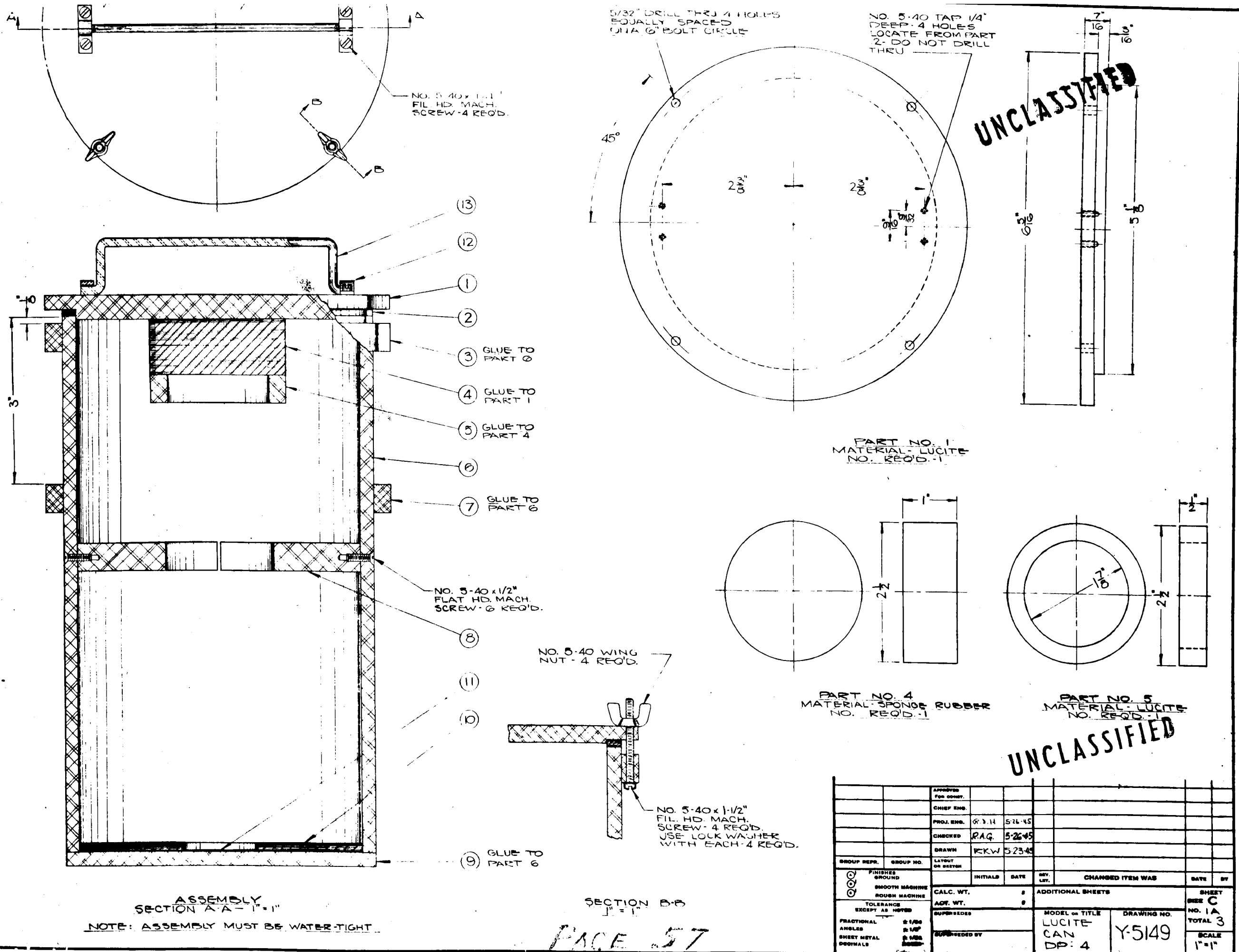
All parts made
of $\frac{1}{2}$ " plyo

Also req'd 4 pcs.
1/4" round brass rod
11" long thd 3" on both
ends with 1/4-20 die.
(3920-B)

UNCLASSIFIED

5035

SECRET

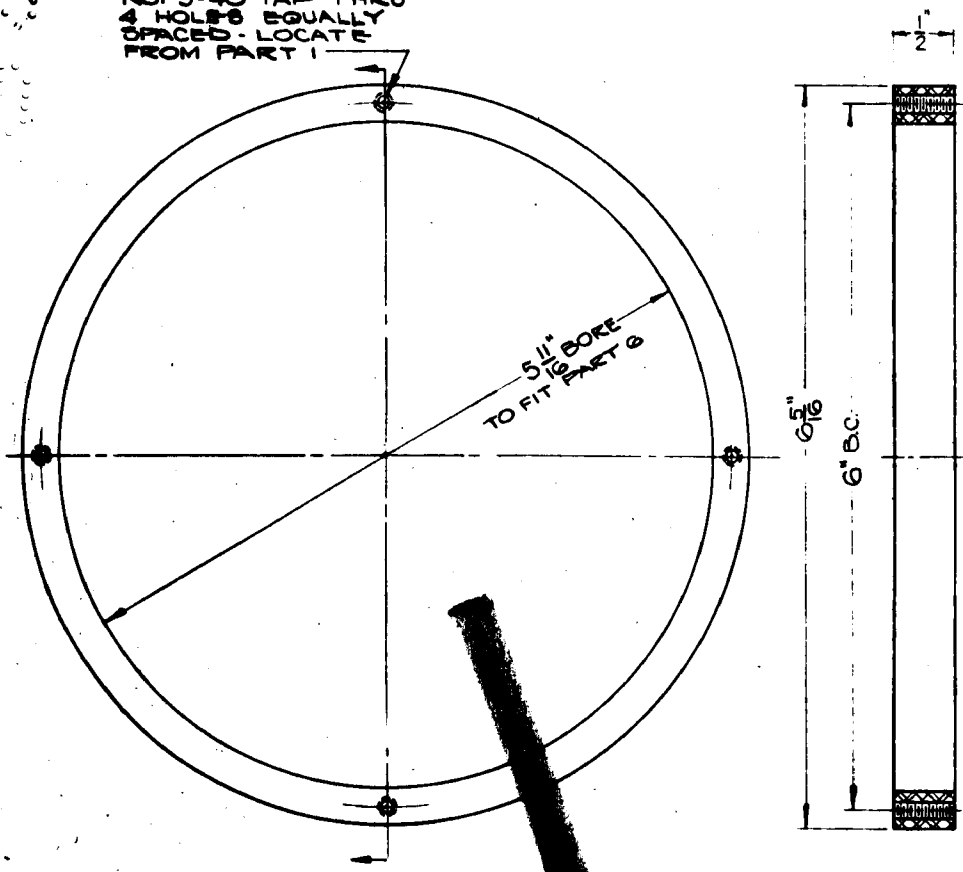


APPROVED FOR COPY					
CHIEF ENG.					
PROJ. ENG.	R. J. H.	5-26-45			
CHECKED	R.A.G.	5-26-45			
DRAWN	R.K.W.	5-23-45			
GROUP REPR.	GROUP NO.	LAYOUT OR REVISION	INITIALS	DATE	REV. LET.
FINISHES	SMOOTH MACHINE	TOLERANCE EXCEPT AS NOTED	CHANGED ITEM WAS		
ROUGH MACHINE			CALC. WT.	ADDITIONAL SHEETS	SHEET NO. 1A TOTAL 3
			AGF. WT.	MODEL OR TITLE	DRAWING NO.
FRACTIONAL	± 1/30		SUPERSEDED	LUCITE CAN DP: 4	Y-5149
ANGLES	± 1/2'		SUPERSEDED BY		SCALE 1" = 1"
SHEET METAL	± 1/32				
DECIMALS	± .005				

PAGE 57

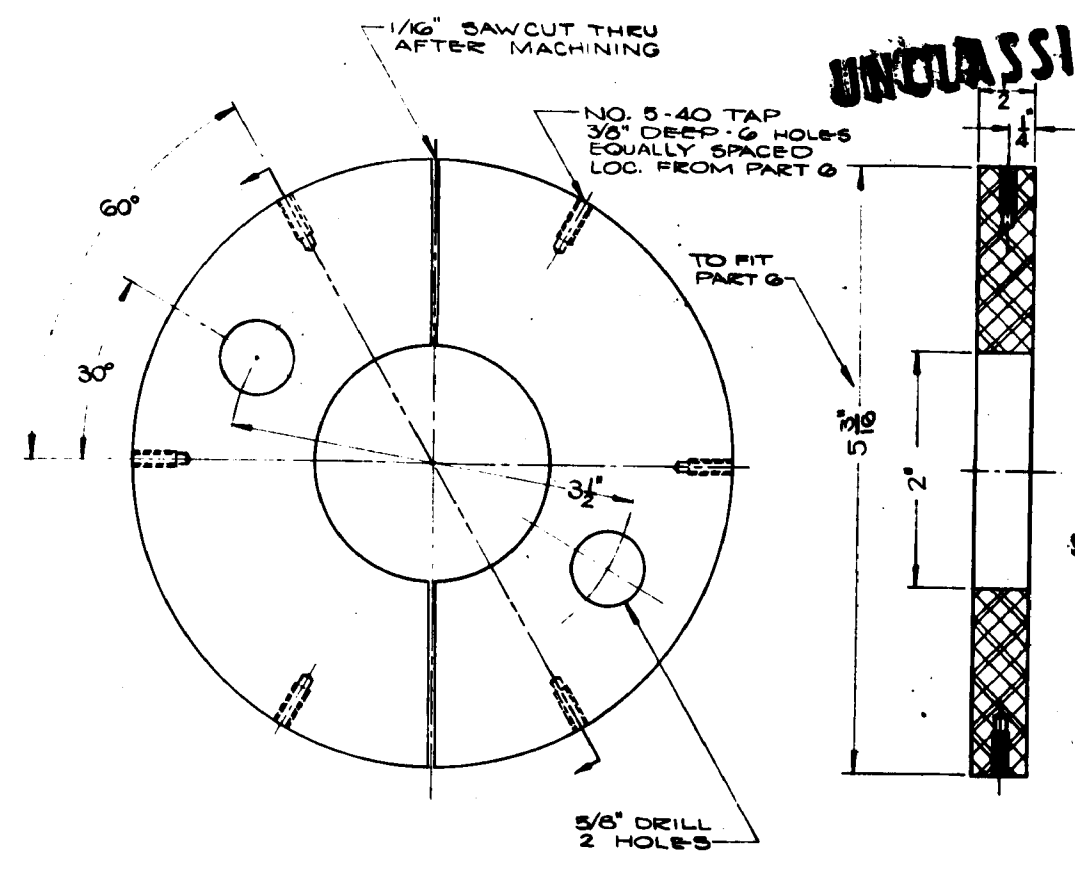
UNCLASSIFIED

NO. 5-40 TAP THRU
HOLE 3/8" EQUALLY
SPACED. LOCATE
FROM PART 1

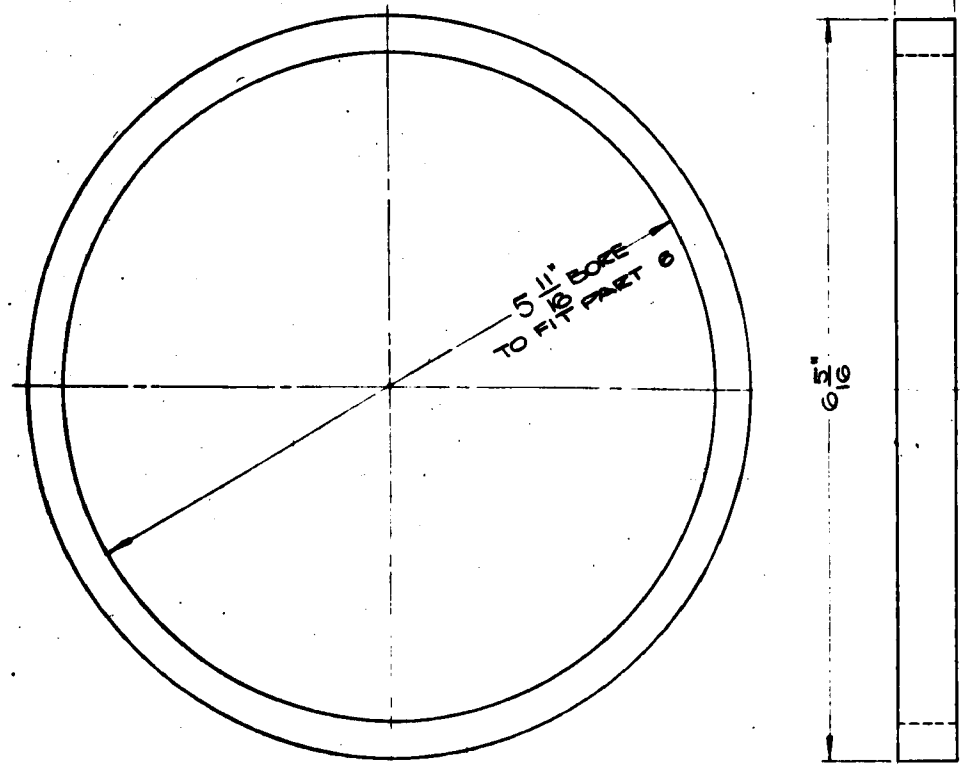


PART NO. 3
MATERIAL - LUCITE
NO. REQ'D - 1

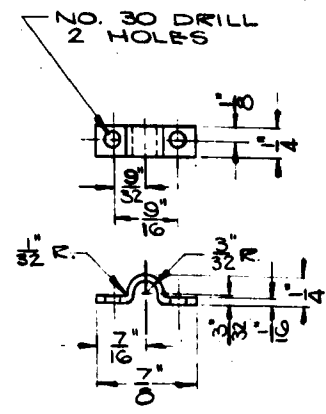
1/16" SAWCUT THRU
AFTER MACHINING



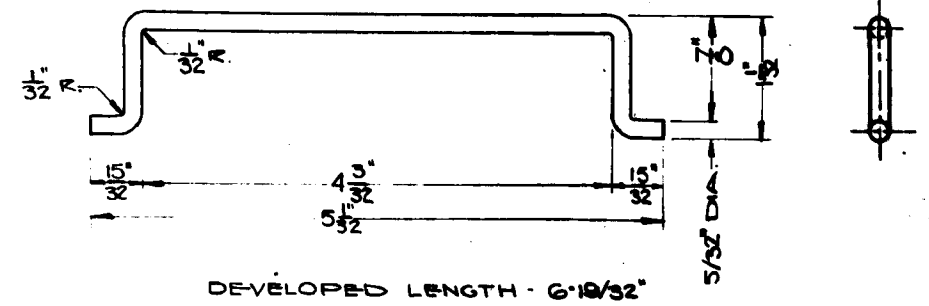
PART NO. 6
MATERIAL - LUCITE
NO. REQ'D - 1



PART NO. 7
MATERIAL - LUCITE
NO. REQ'D - 1



PART NO. 12
MATERIAL - 303 STAINLESS STEEL
NO. REQ'D - 2



PART NO. 13
MATERIAL - 303 STAINLESS STEEL
NO. REQ'D - 1

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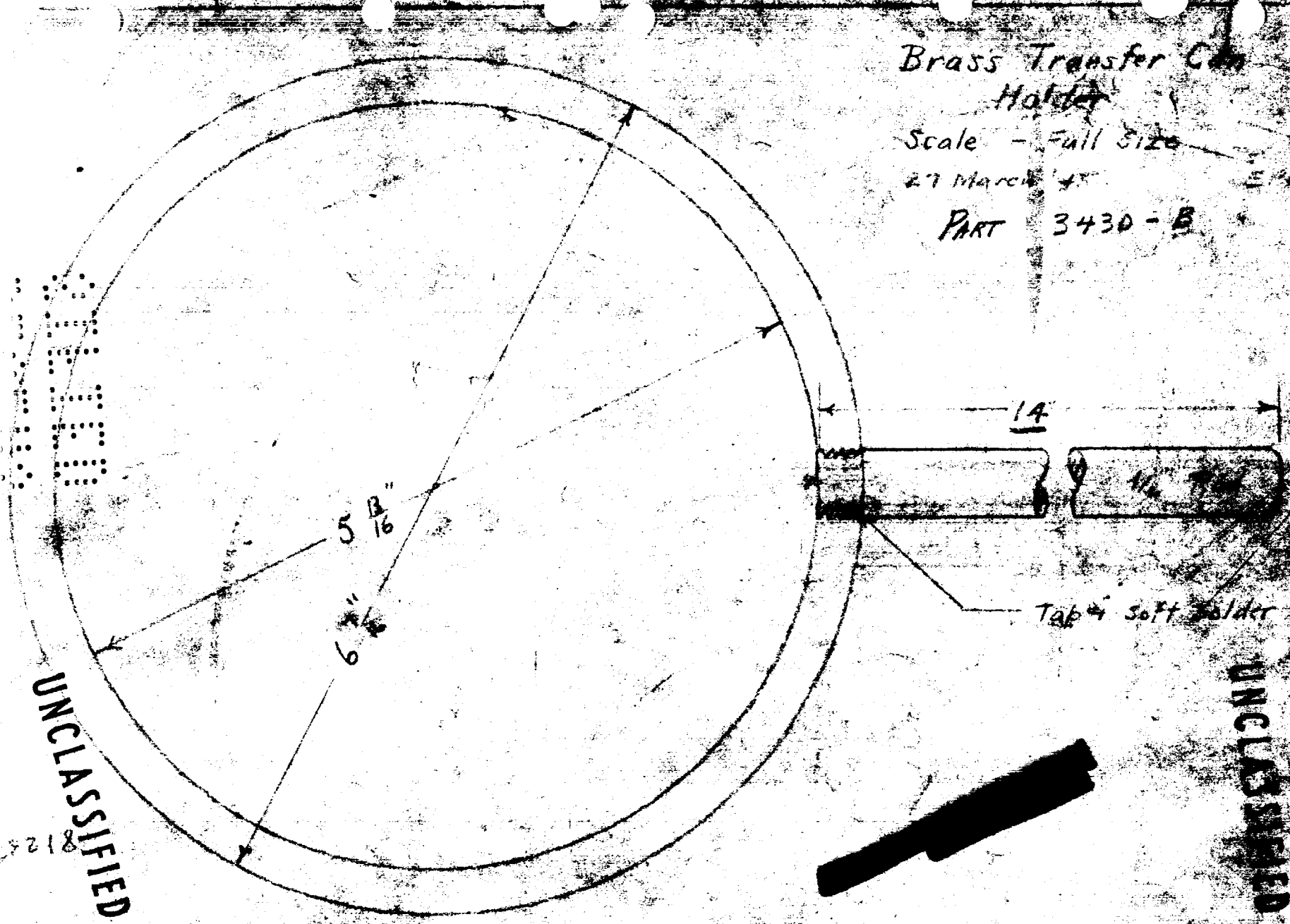
GROUP REPR.	GROUP NO.	LAYOUT OR REVISION	INITIALS	DATE	REV. NO.	CHANGED BY
DESIGNED		CALC. WT.				
DRAWN		ACT. WT.				
CHECKED		SUPERSEDED BY				
APPROVED		MATERIAL				
		NO. OF SHEETS				
		TITLE				
		LUCITE CAN DP. 4				

Brass Transfer Can
Holder

Scale - Full Size

27 March 47

PART 3430-B

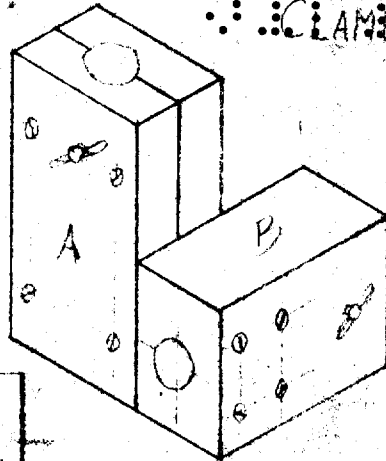


UNCLASSIFIED

UNCLASSIFIED

CLAMP FOR STORAGE BOTTLE

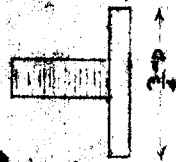
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BRIS PART 3430-D KNURL EDGE

2 SCREWS

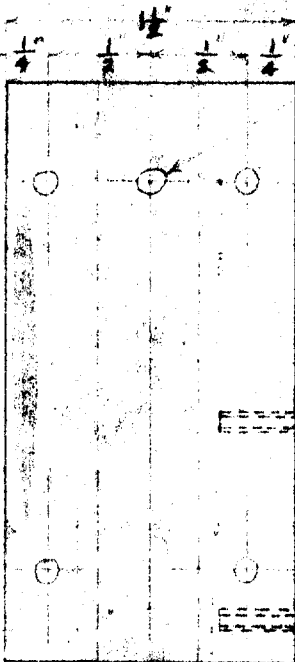
1/4" 28 NF-2



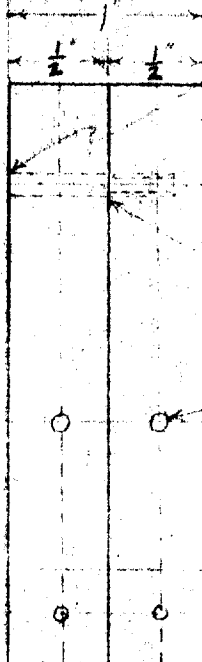
0.510 D. HOLE 0.520



5 FLAT HEAD SCREWS { 1 1/4" LONG 4 1 1/2" LONG



1 HOLE DRILL AND TAP FOR 1/4" 28 NF-2 - 2 TURNS TO 1/2" HOLE



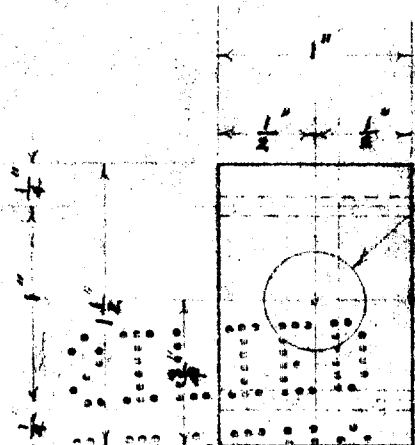
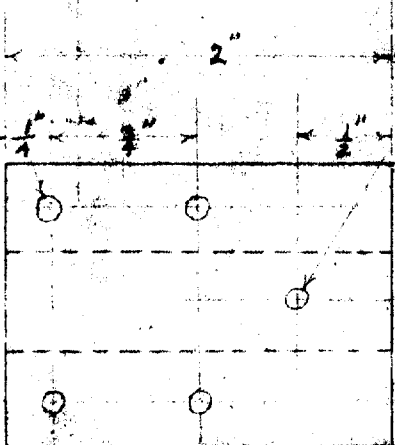
DRILL AND TAP FOR HOLE 32 NF-2 - 4 HOLES 3/8" DEEP

4 HOLES DR. & TAP NO. 10 32 NF-2 7/8" DEEP

DRILL HOLES - SAW INTO 2 PIECES IGNORE METAL LOST

4 - 3/16" HOLES - COUNTERSINK

DRILL TAP 1/4" 28 NF-2 TO CENTER



0.510 D HOLE 0.520

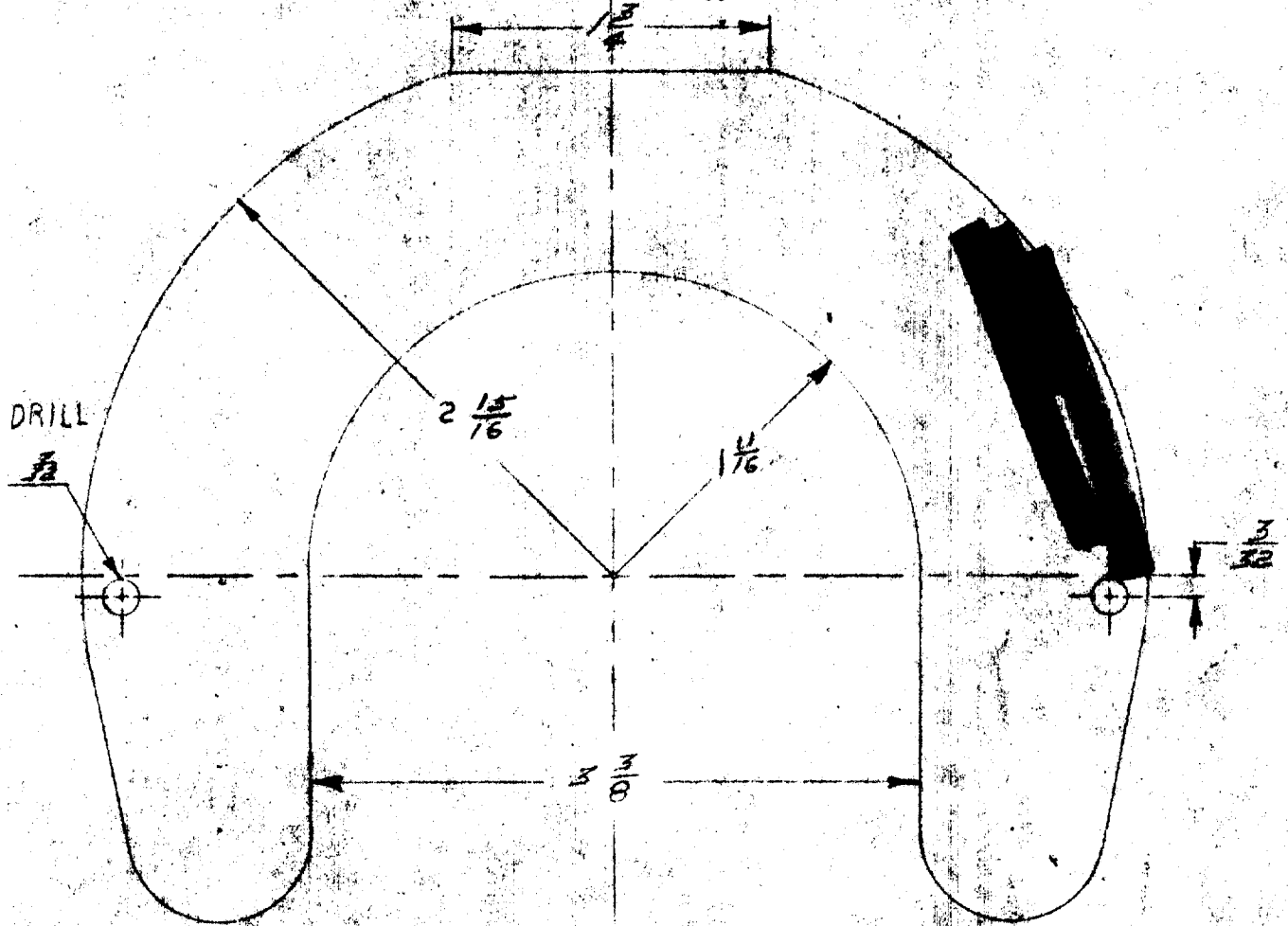
B

FULL SIZE

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BALL JOINT CLAMP 102-7
PART 3440-A

UNCLASSIFIED



MAT. - BRASS

NO. REQ. - 2

SCALE - FULL

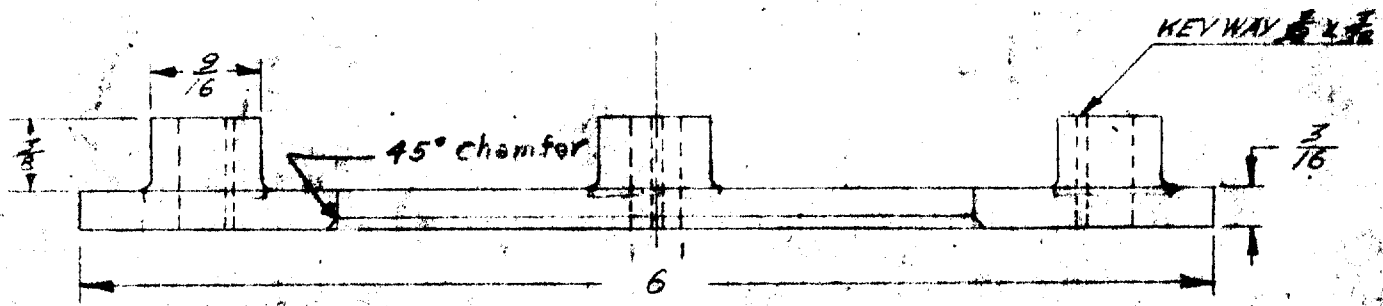
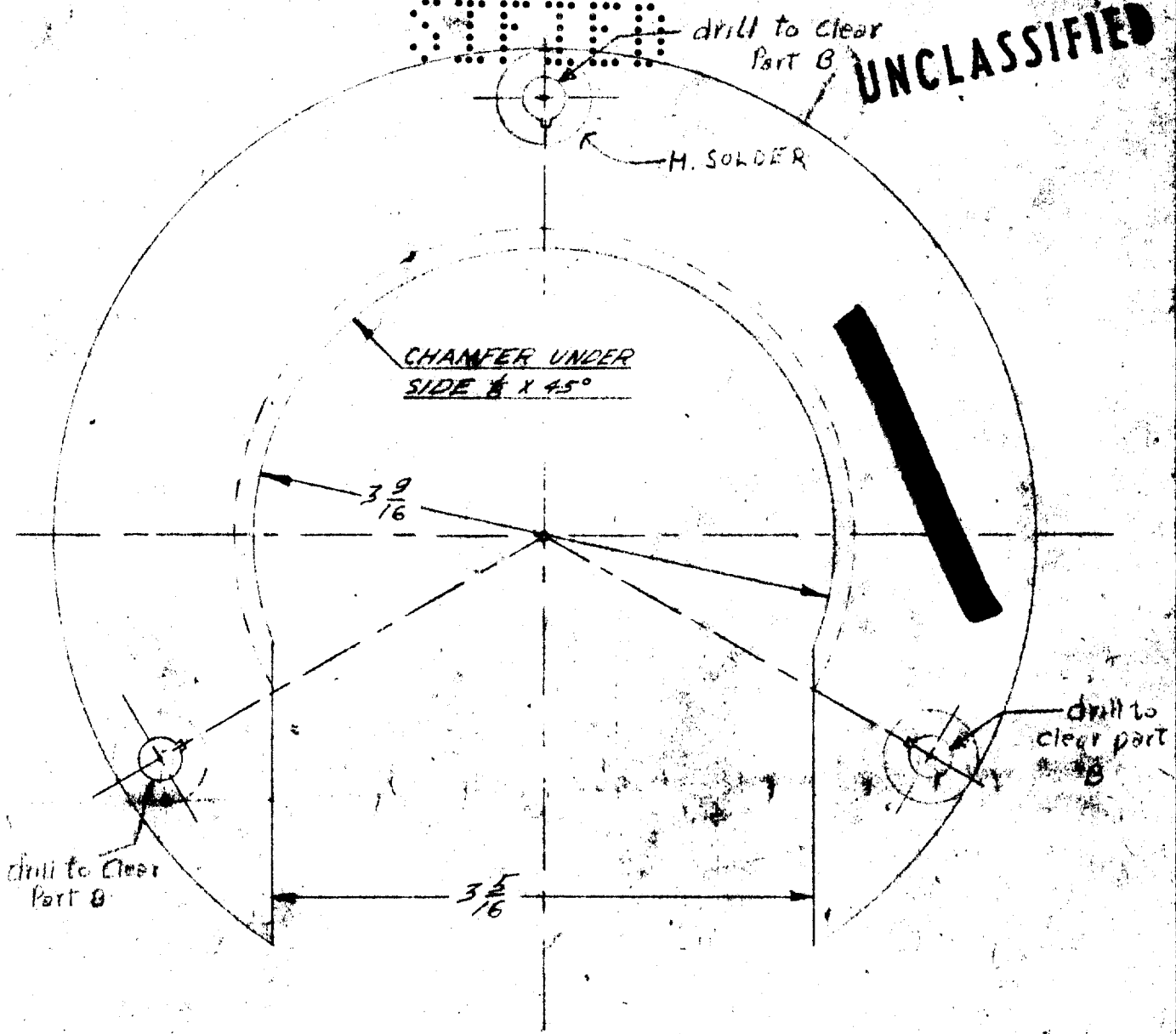
0100

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UNCLASSIFIED



Part C required

102-75 SPECIAL B.J. CLAMP

UNCLASSIFIED

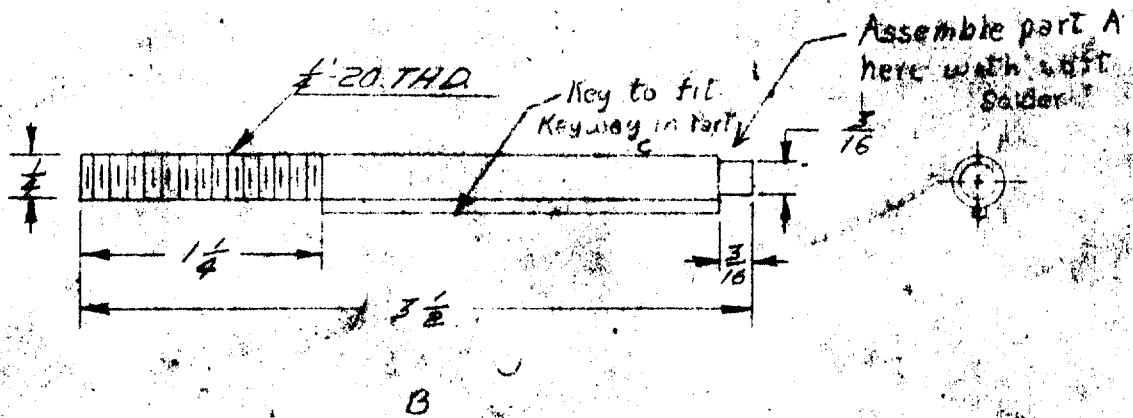
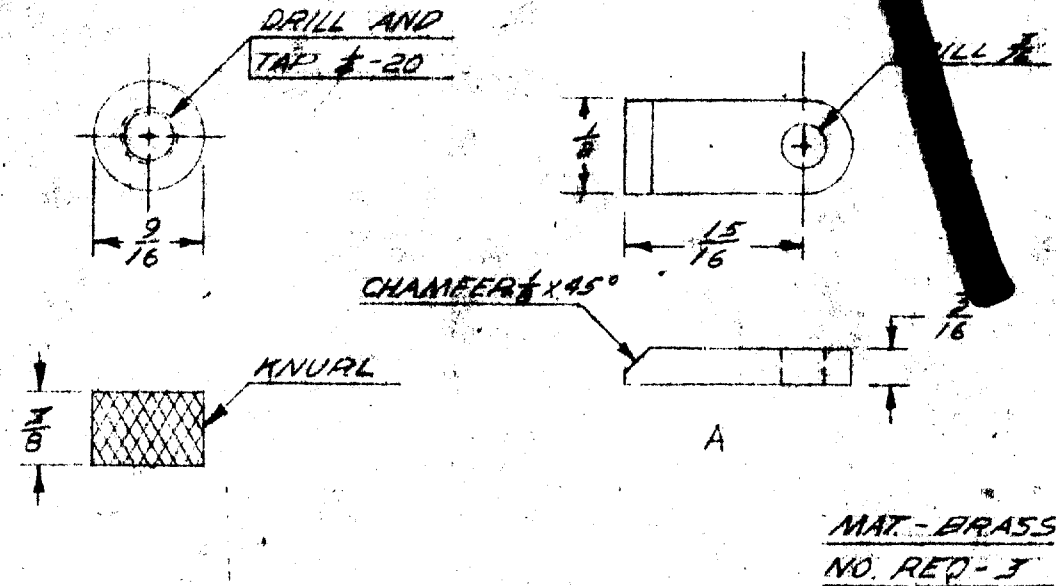
PART 3440-B-1

MAT. - H.R. BRASS
NO. REQ. - 1
SCALE - FULL

PAGE 6

UNCLASSIFIED

UNCLASSIFIED



PART 344.D-B-2

UNCLASSIFIED

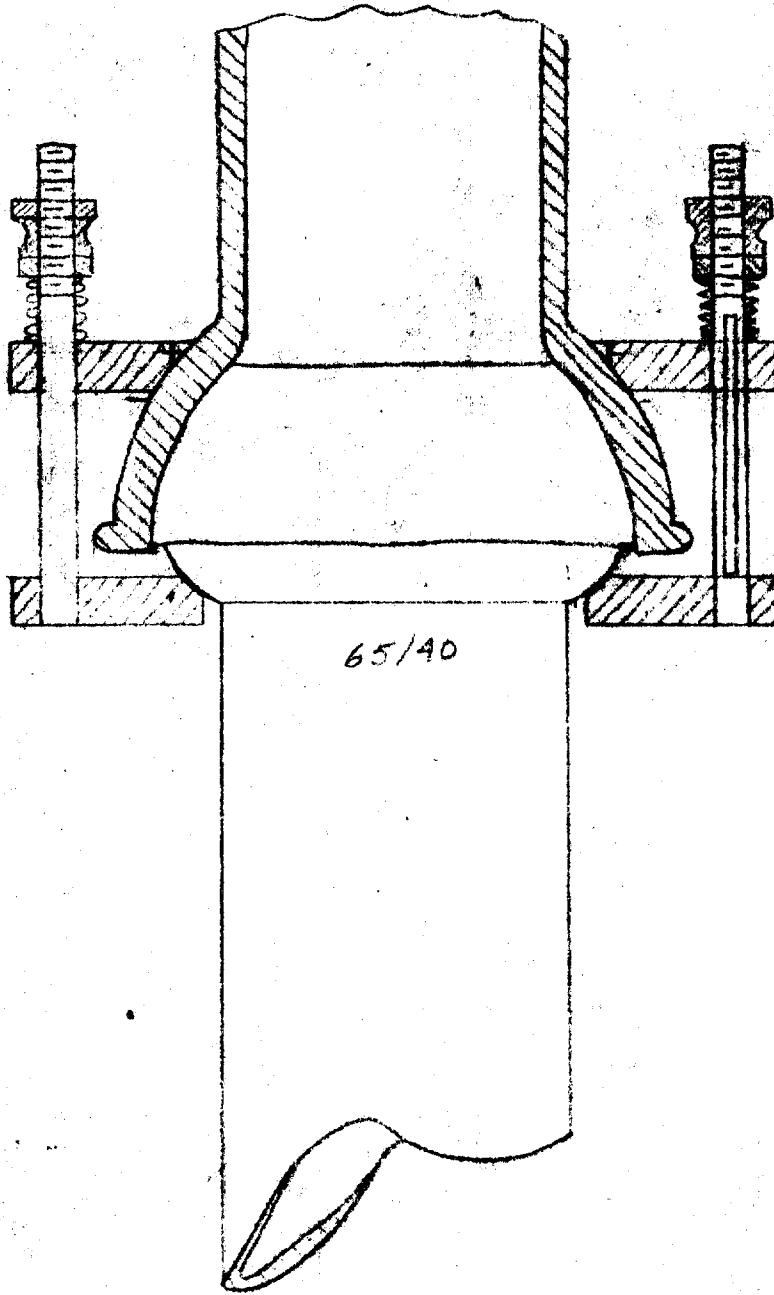
UNCLASSIFIED

SPECIAL BALL JOINT CLAMP

SHEET 1 OF 3

ASSEMBLY

PART 3440-C-1



SCALE 1" = 1"

UNCLASSIFIED

PAGE 85

UNCLASSIFIED

UNCLASSIFIED

SPECIAL BALL-JOINT CLAMP

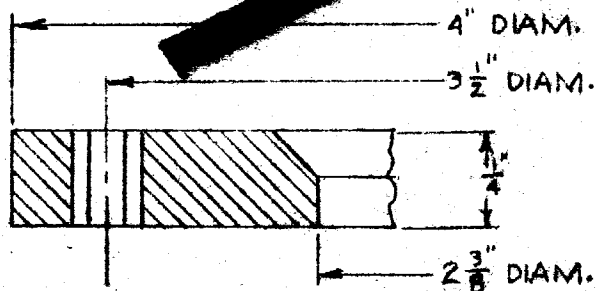
SHEET 2 OF 3

MATERIAL - $\frac{1}{4}$ " SHEET BRASS

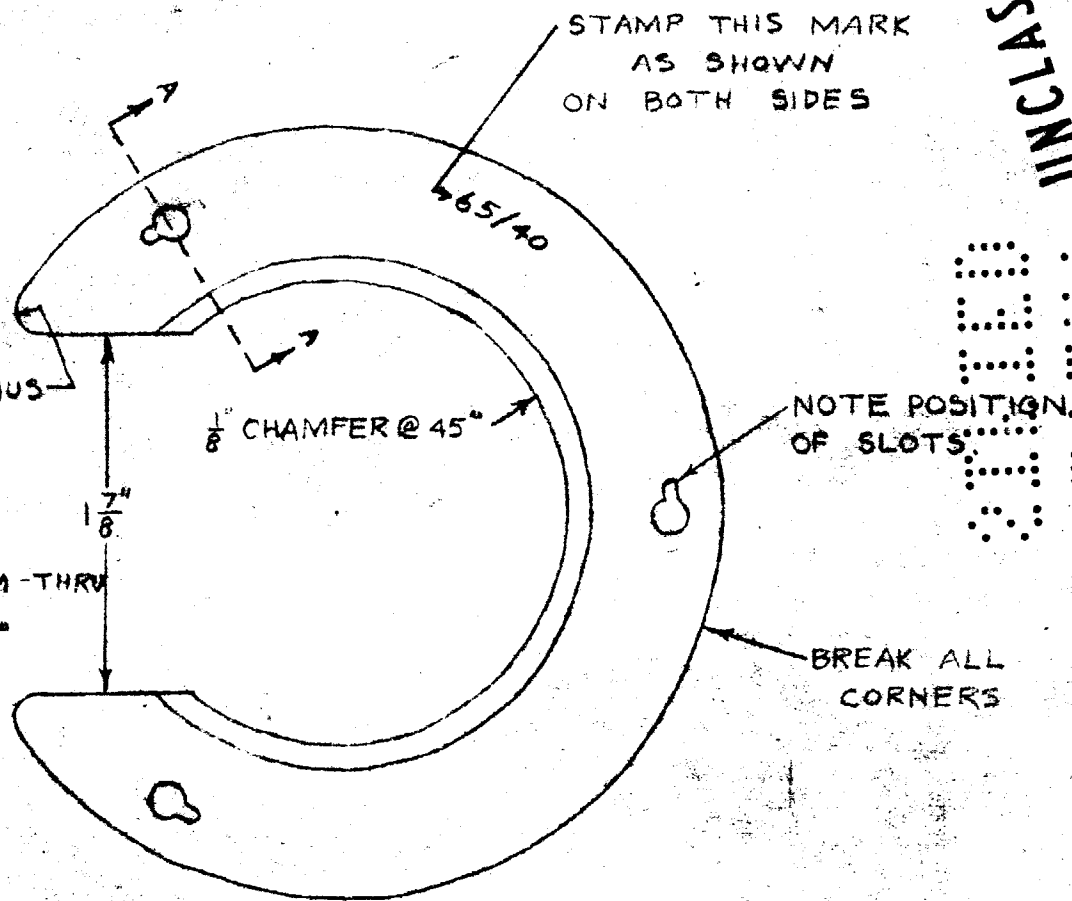
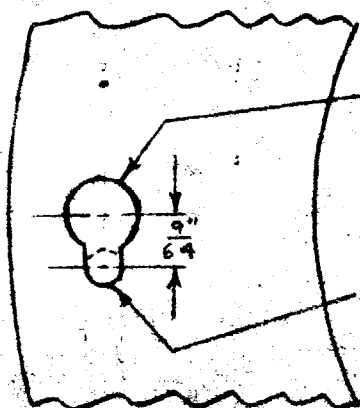
QUANTITY - ONE

PART 3440-C-2

UNCLASSIFIED



SECTION A-A



PART A

PAGE 26

U.S. GOVERNMENT PRINTING OFFICE

UNCLASSIFIED

SPECIAL BALL JOINT CLAMP

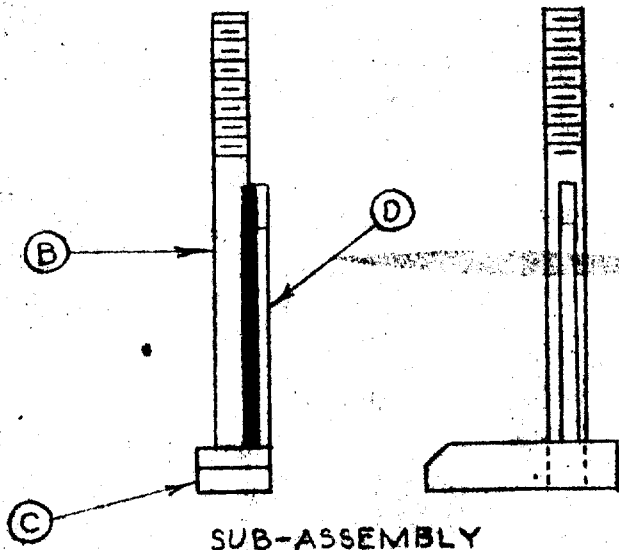
SHEET 3 OF 3

PART 3440-G-12

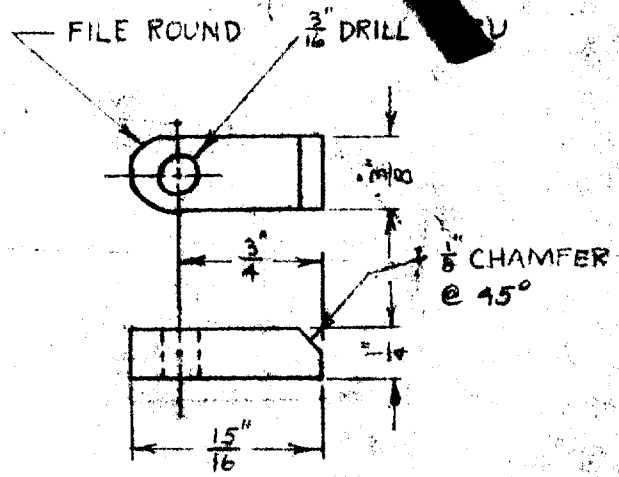
NOTE: PROVIDE THREE THUMB NUTS AND THREE HEX JAM NUTS.
PROVIDE THREE SPRINGS - $\frac{3}{4}$ " FREE LENGTH - GROUND ENDS -
 $\frac{1}{8}$ " PITCH - 0.029" SPRING WIRE - SPRING $\frac{3}{8}$ " O.D.



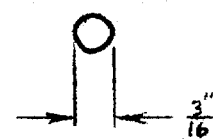
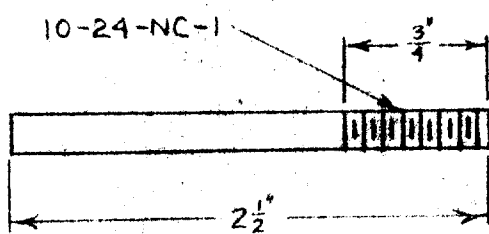
PART D - BRASS - MAKE THREE



SUB-ASSEMBLY
(SOFT SOLDER TOGETHER)



PART C - BRASS - MAKE THREE



PART B - BRASS - MAKE THREE

U.S. GOVERNMENT PRINTING OFFICE

UNCLASSIFIED

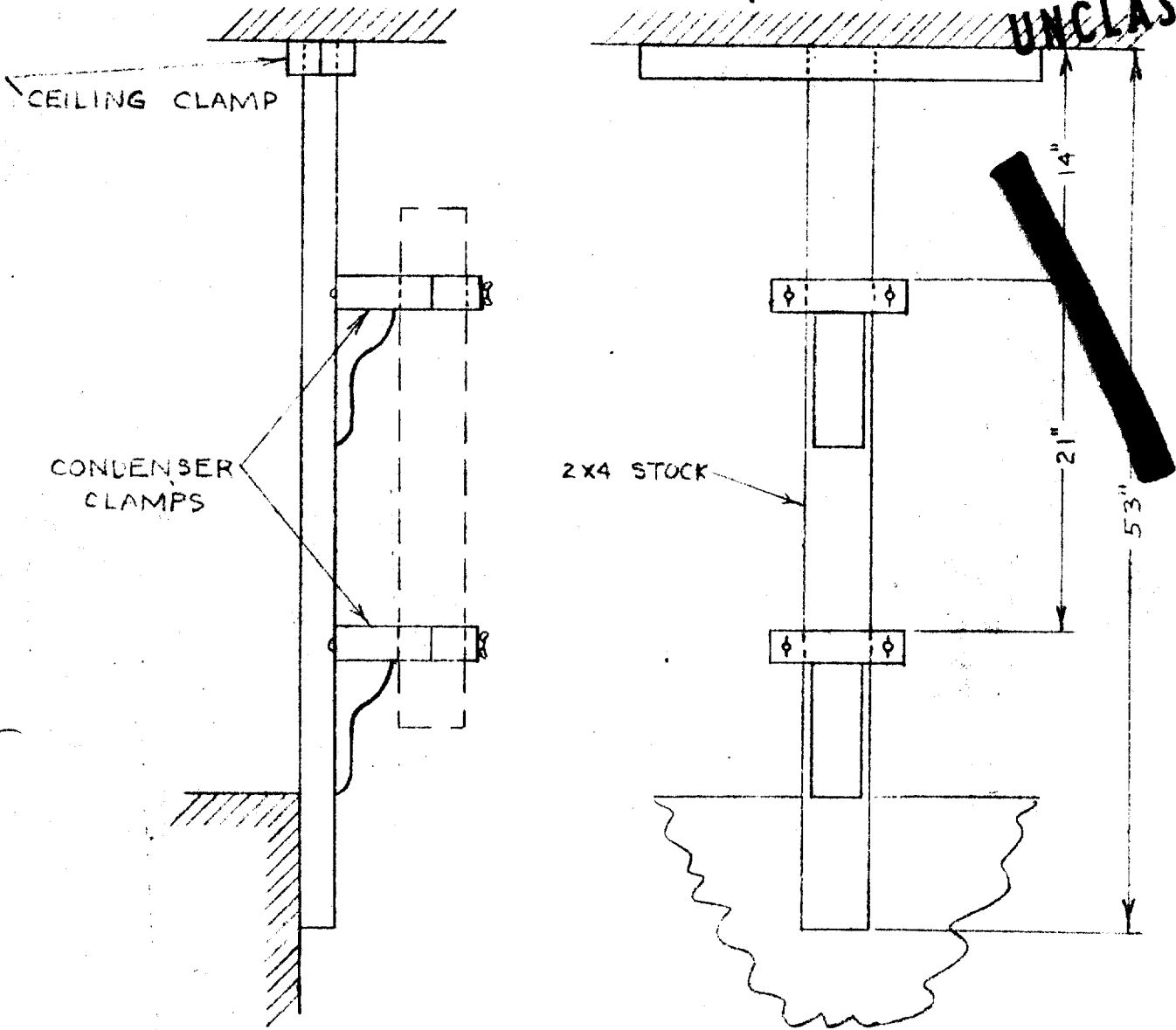
SECRET

CONDENSER STAND ASSEMBLY

3150

(CEILING)

UNCLASSIFIED



SECRET

UNCLASSIFIED

GROUP CM-5
PHONE 239

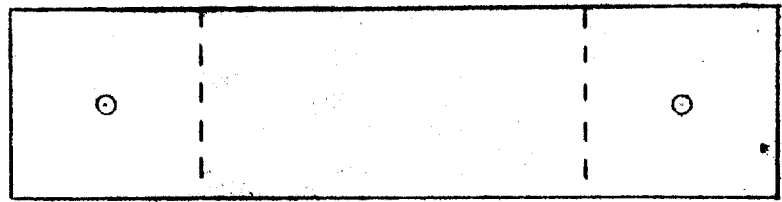
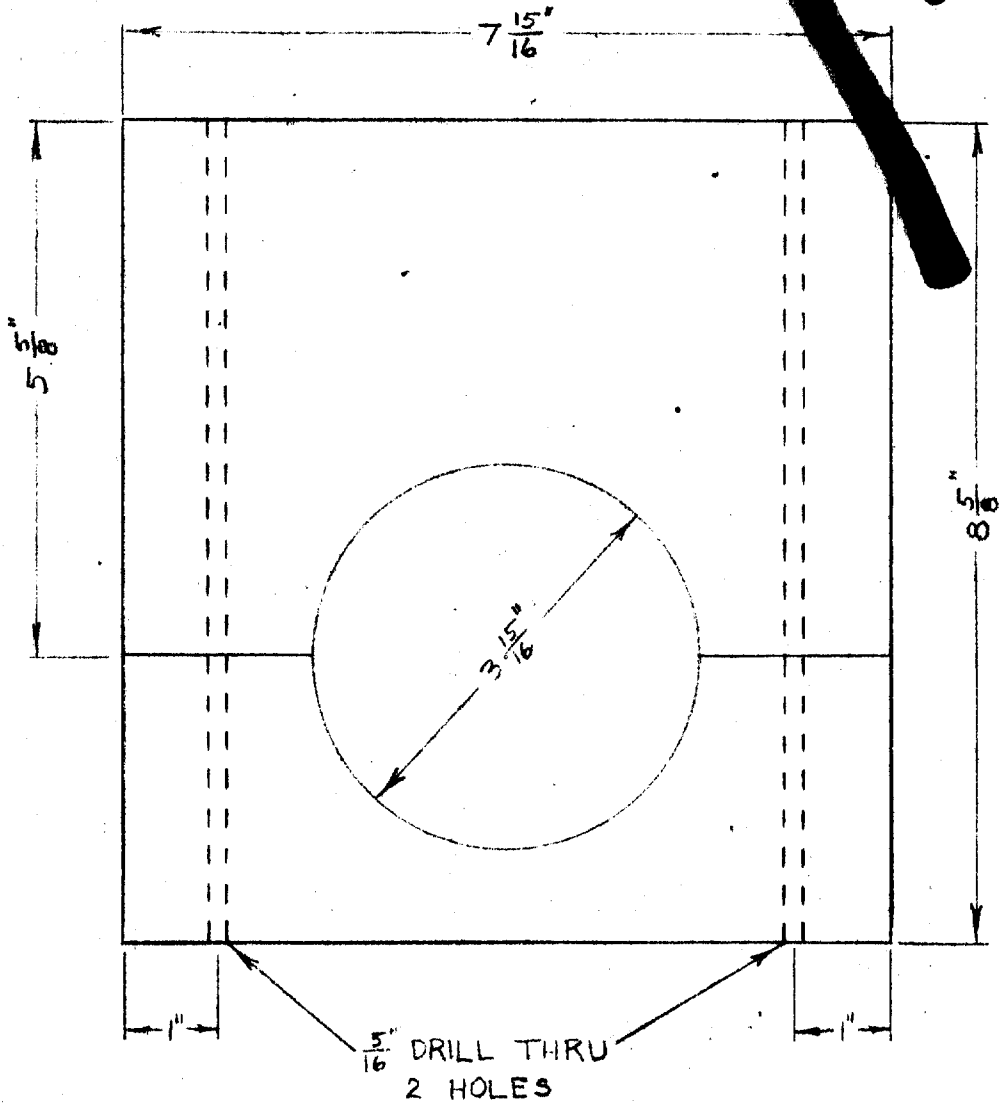
GROUP 1

CONDENSER CLAMP

3450-A

MATERIAL - PINE
MAKE TWO

UNCLASSIFIED



UNCLASSIFIED

GROUP CM-5
PHONE 233

GROUP 1

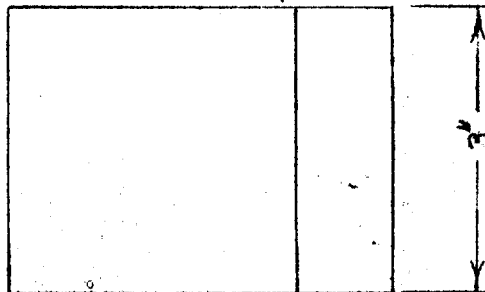
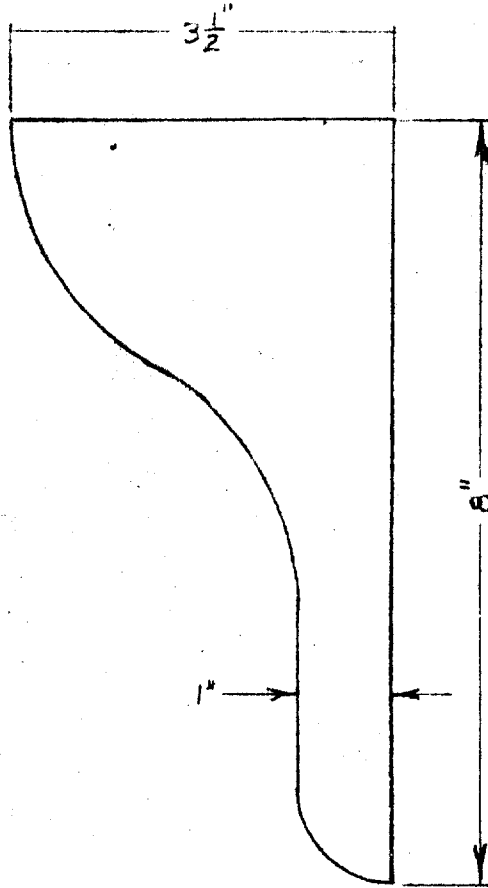
DATE 69

CONDENSER CLAMP BRACKET

3450-B

MATERIAL: BRASS
MAKE TWO

UNCLASSIFIED



UNCLASSIFIED

GROUP CM-5
PHONE 233

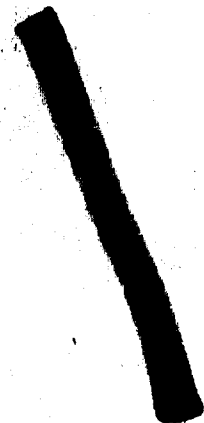
0110

CEILING CLAMP
FOR
CONDENSER STAND

3450-C

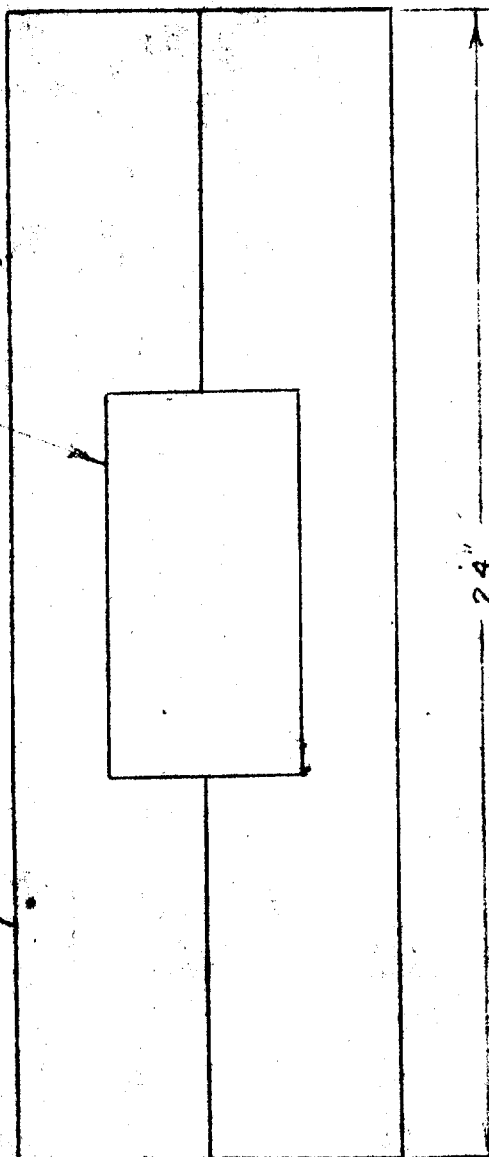
MATERIAL - PINE
MAKE ONE

UNCLASSIFIED



CUT SLOT TO FIT
VERTICAL "2X4"

REGULAR "2X4" STOCK



24"

SPLIT IN TWO PIECES

UNCLASSIFIED

0110

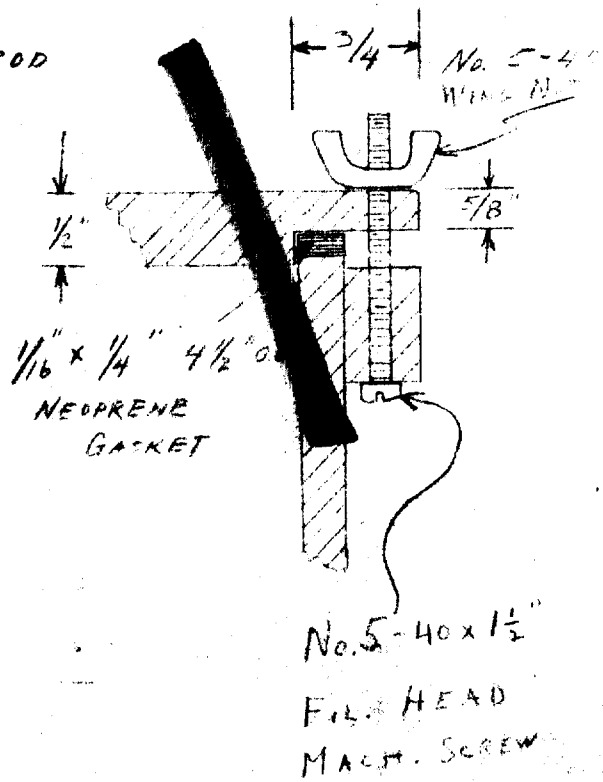
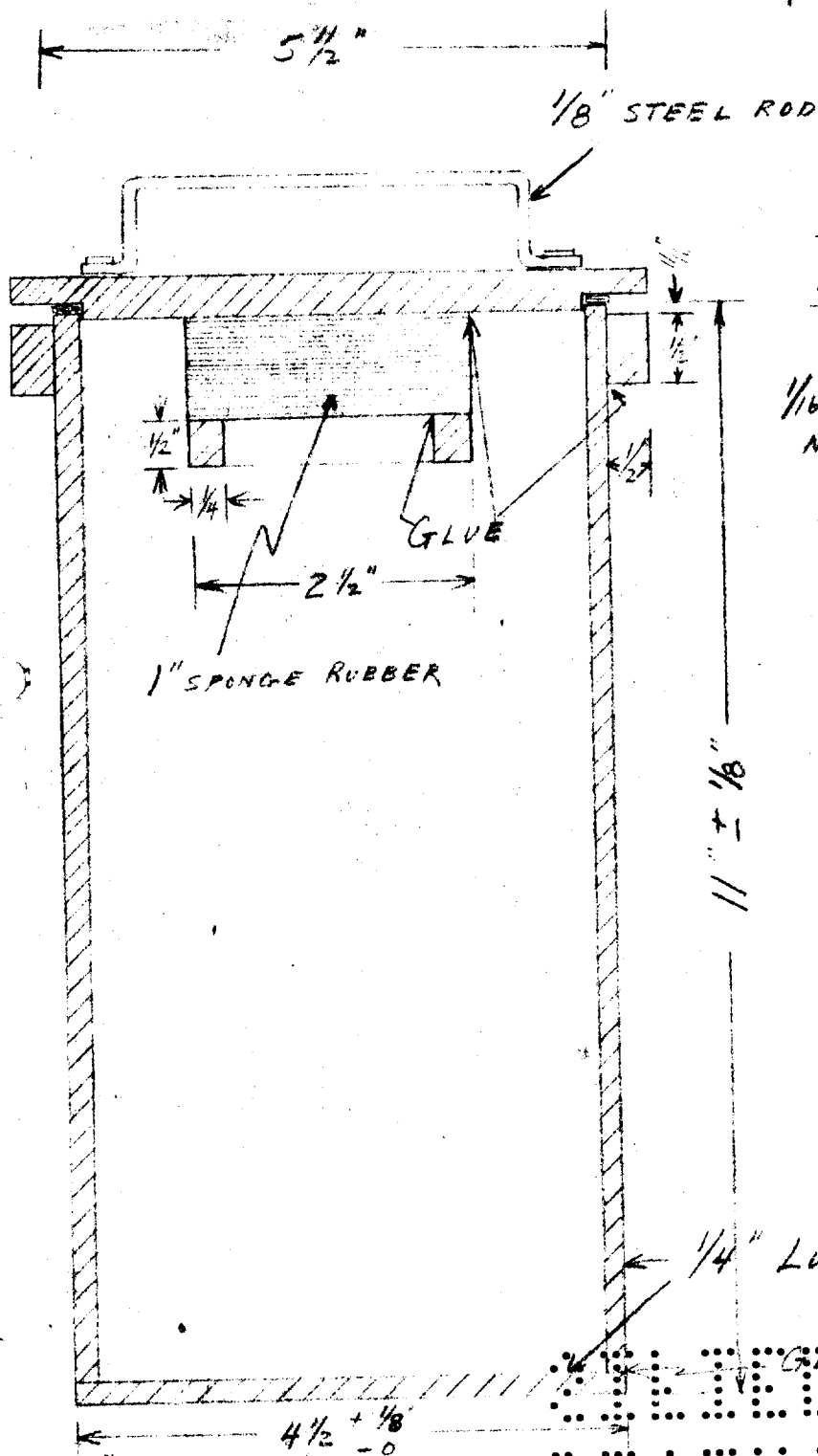
...PAGE 7... ..

GROUP CM-5
PHONE 233

UNCLASSIFIED

No 5-40 x 1/4" FILE HEAD
MACH. SCREW

UNCLASSIFIED STORAGE CONTAINER



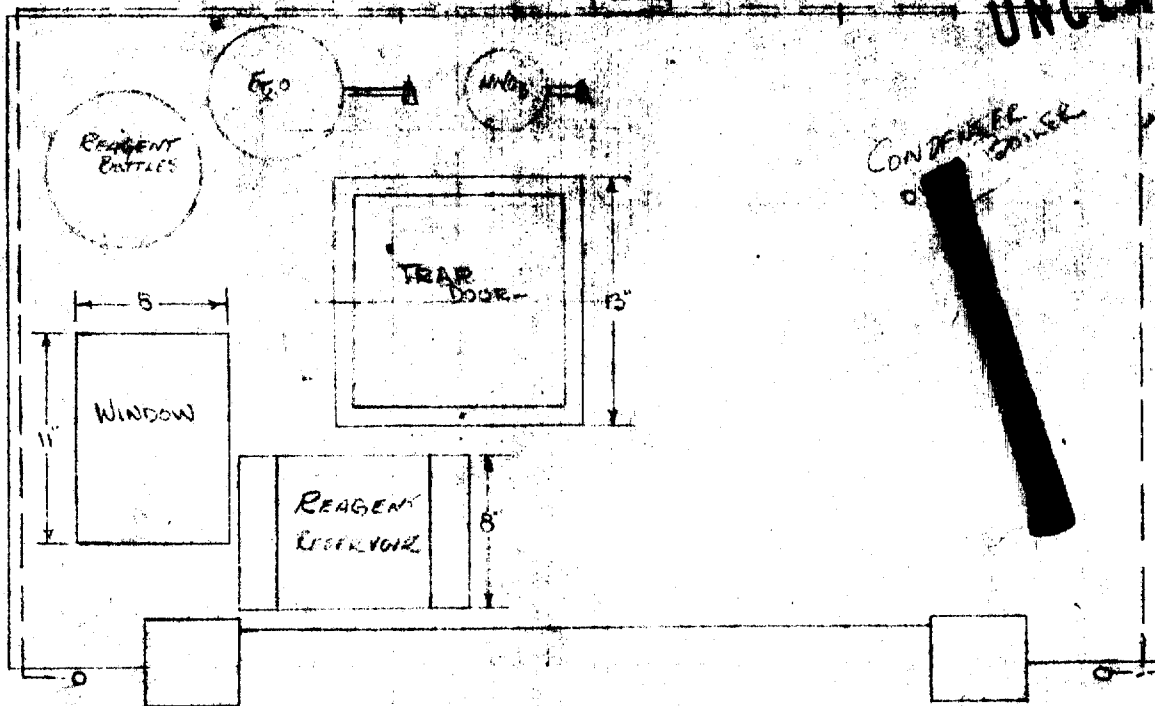
UNCLASSIFIED

0110
0110

Hood Top
13470

4 Plus Receptacles

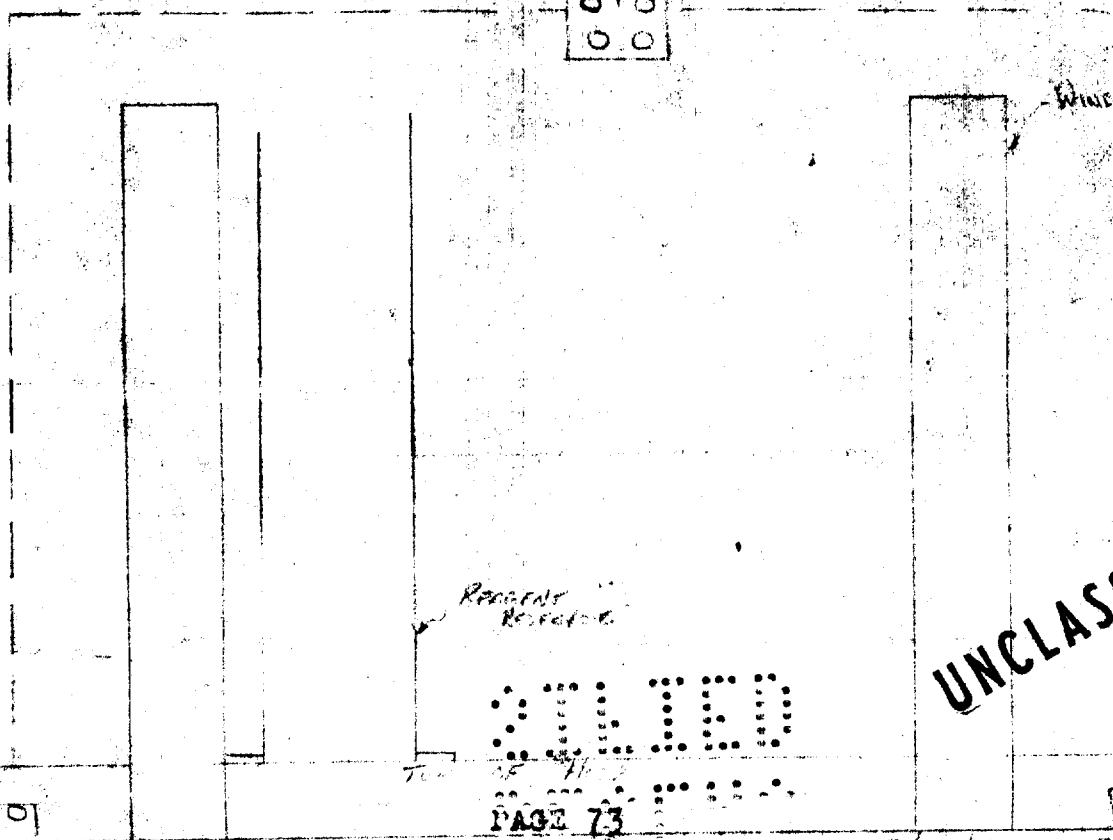
UNCLASSIFIED



CEILING

4 PLUS RECEPTACLE

SCALE
1" = 10"



UNCLASSIFIED

0110
0110

SCALE

1/2" = 10"

HOOD TRAP DOOR

MATERIAL - PLYWOOD
MAKE ONE

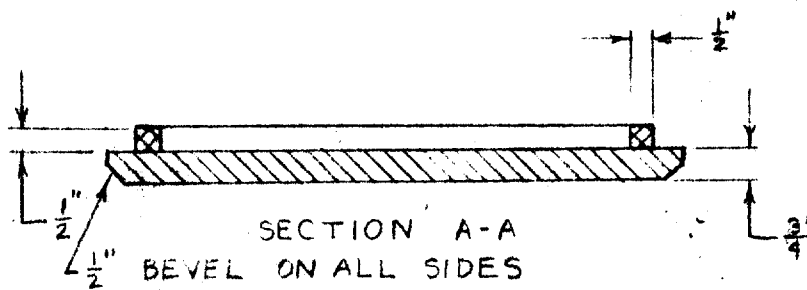
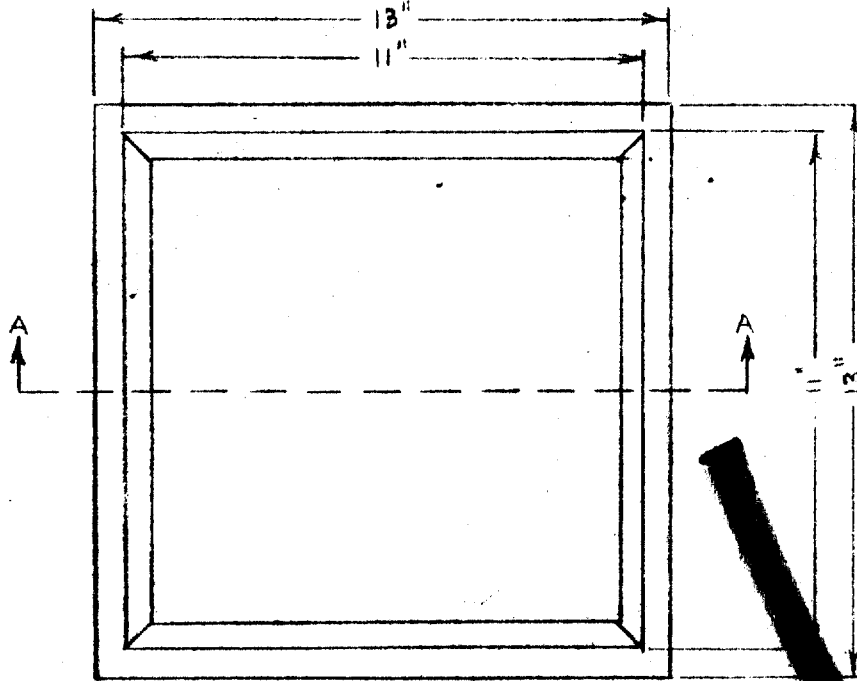


PINE



3470-A

UNCLASSIFIED



UNCLASSIFIED

0110

GROUP CM-5
PHONE 233

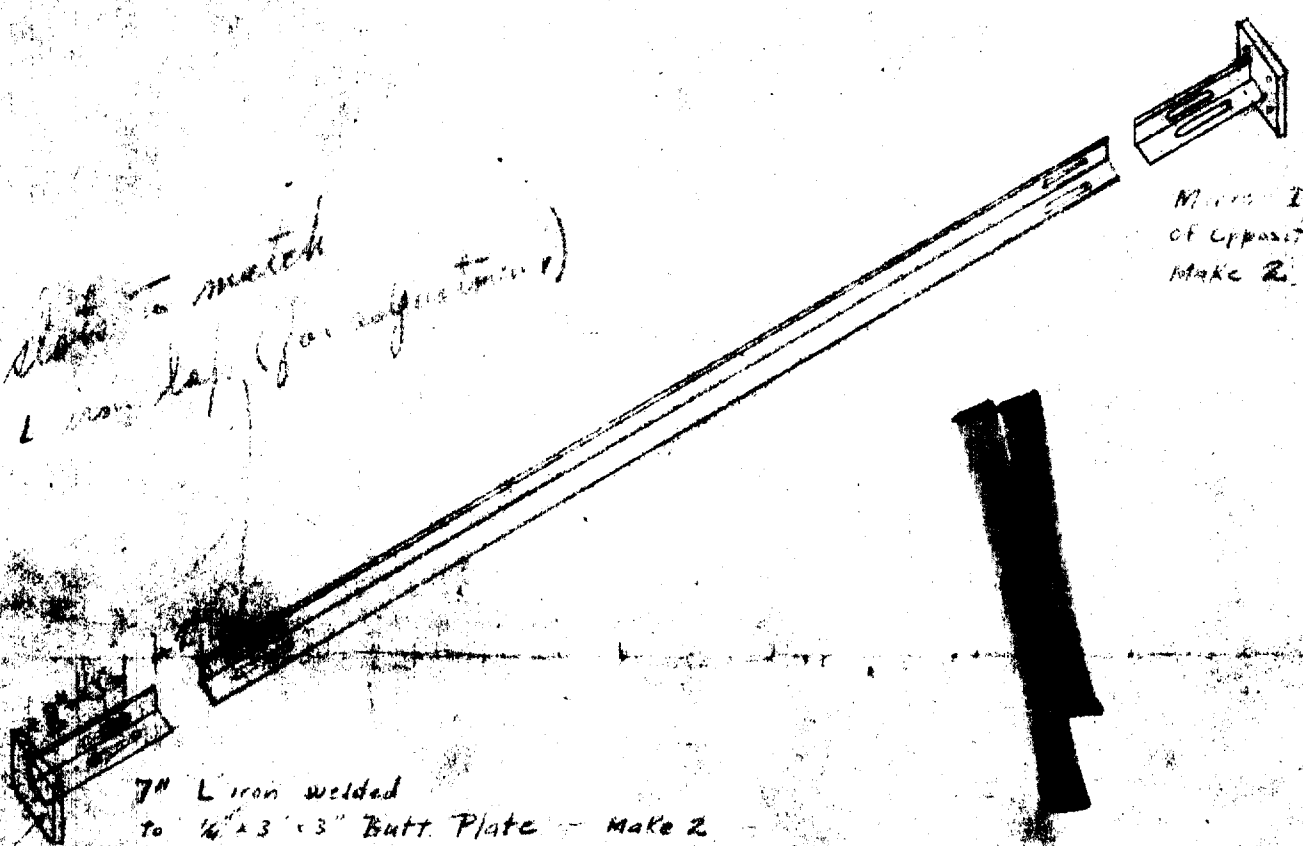
U.S. GOVERNMENT PRINTING OFFICE

HOOD SUPPORT BRACE

PART 3480

UNCLASSIFIED

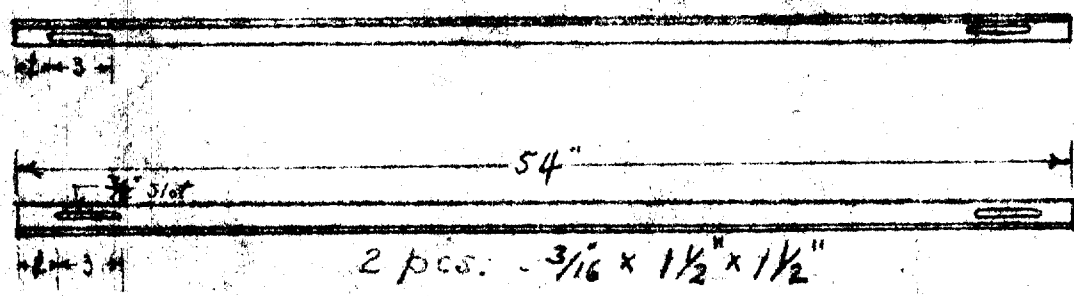
when L iron lap (for adjustment)



7" L iron welded to 1/4" x 3" x 3" Butt Plate - Make 2

Drill & countersink 4 holes to hold #12 wood screws from "L" iron side.

Change Part



Note: all slots 3/8" x 3"

U.S. GOVERNMENT PRINTING OFFICE

MAKE TWO

UNCLASSIFIED

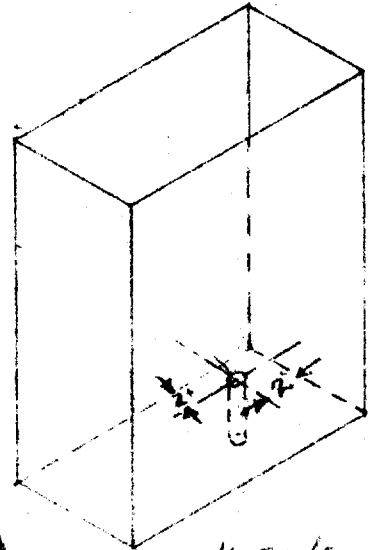
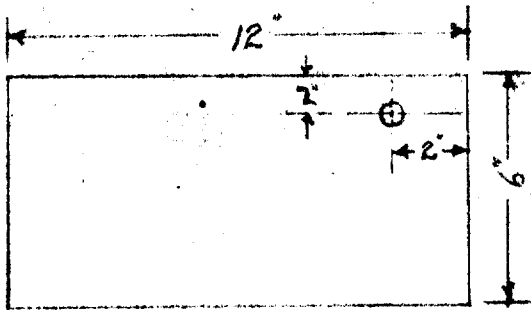
Scale 1/8" = 1"
27 March 45
EPH

CM-5

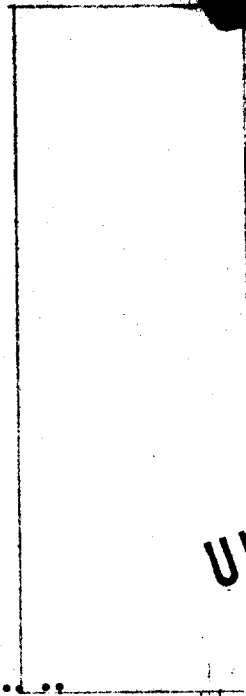
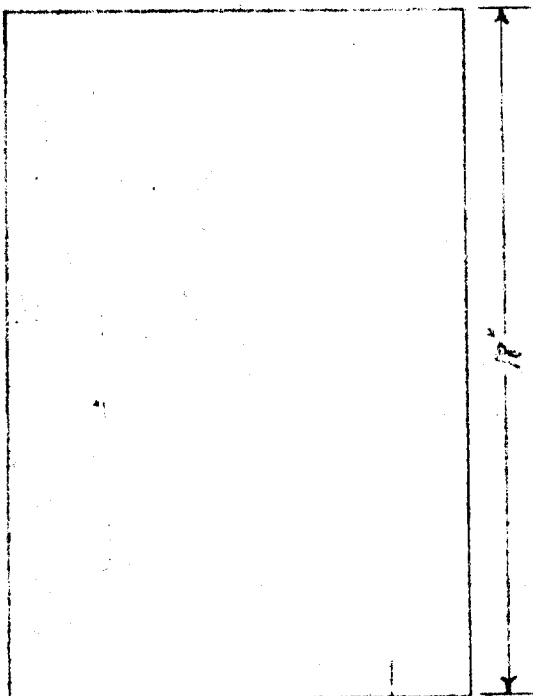
SECRET

UNCLASSIFIED

Glycol Solution
Storage Tank
73490



1/2 Scale
open top



UNCLASSIFIED

CM-5

Note: Tank to be made of
18 gauge galvanized iron (welded)
1/2" x 3/8" Nipple to be welded as shown

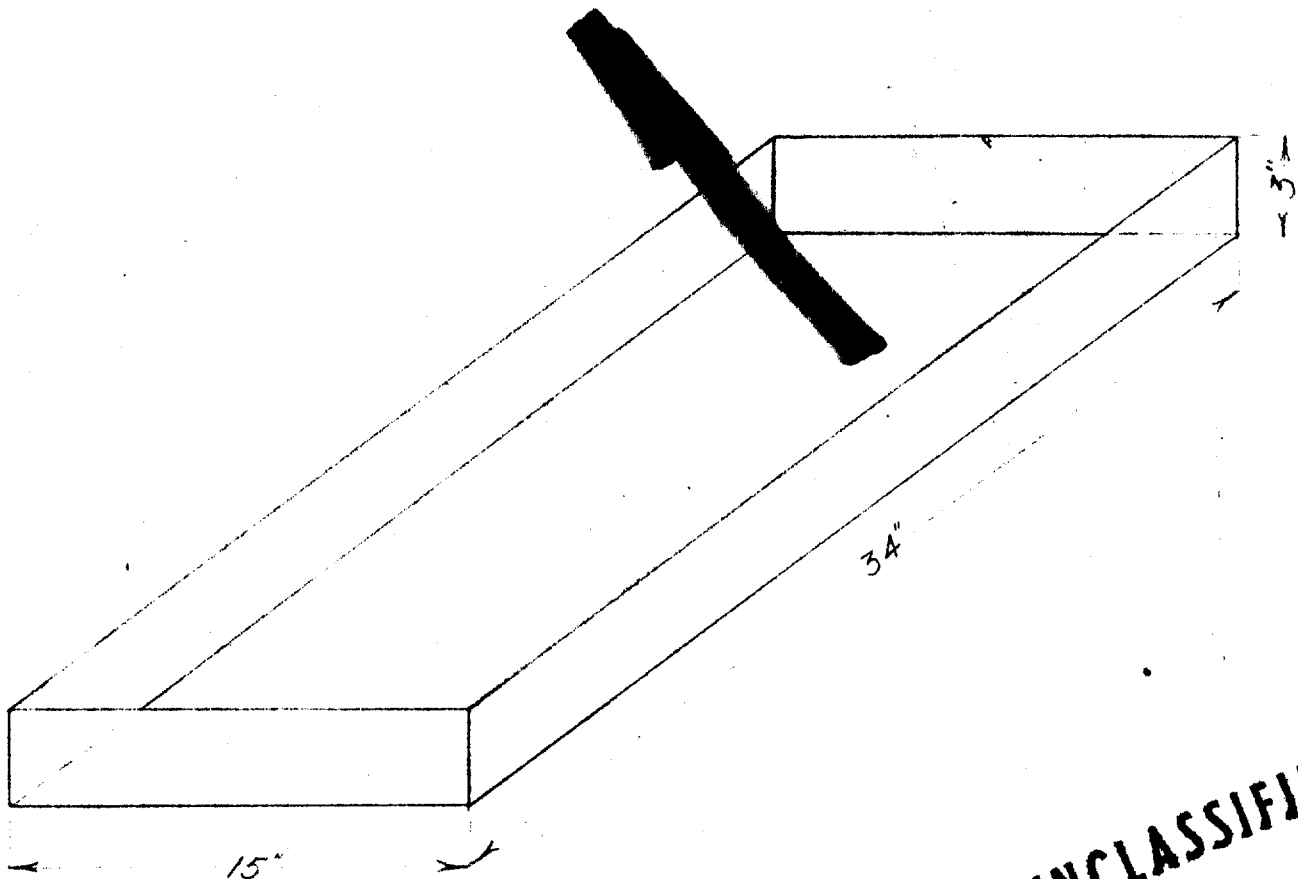
Scale 1" = 2/10"
March 26, 1945

SECRET

DECLASSIFIED

Pump Tray
3510

UNCLASSIFIED



UNCLASSIFIED

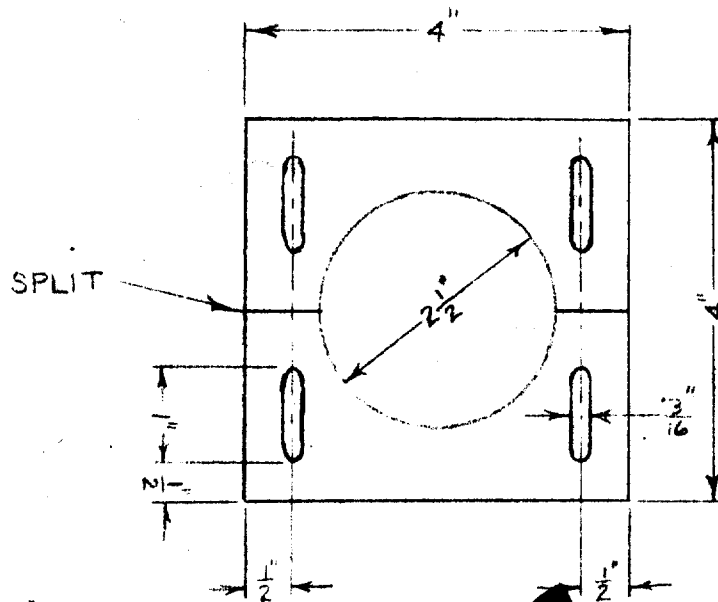
Make Tray of 18 gauge Black Iron
Hard Solder

DECLASSIFIED

25 Apr 45

UNCLASSIFIED

UNCLASSIFIED

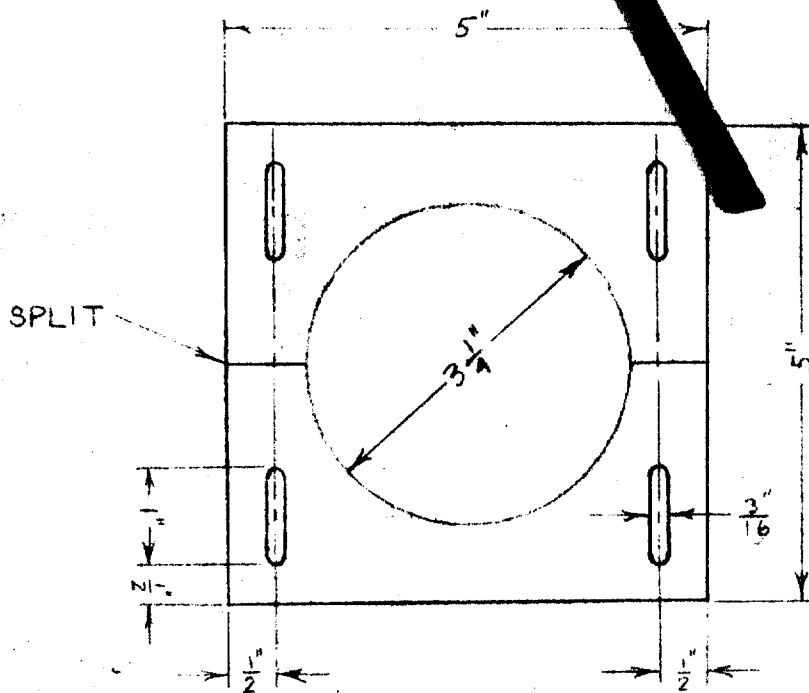


VAPOR TUBE SEAL

MATERIAL - 1/2" PLYWOOD

MAKE ONE

3520-A



CONDENSER SEAL

MATERIAL - 1/2" PLYWOOD

MAKE ONE

3520-B

UNCLASSIFIED

UNCLASSIFIED

PAGE 78

GROUP CM5
PHONE 233

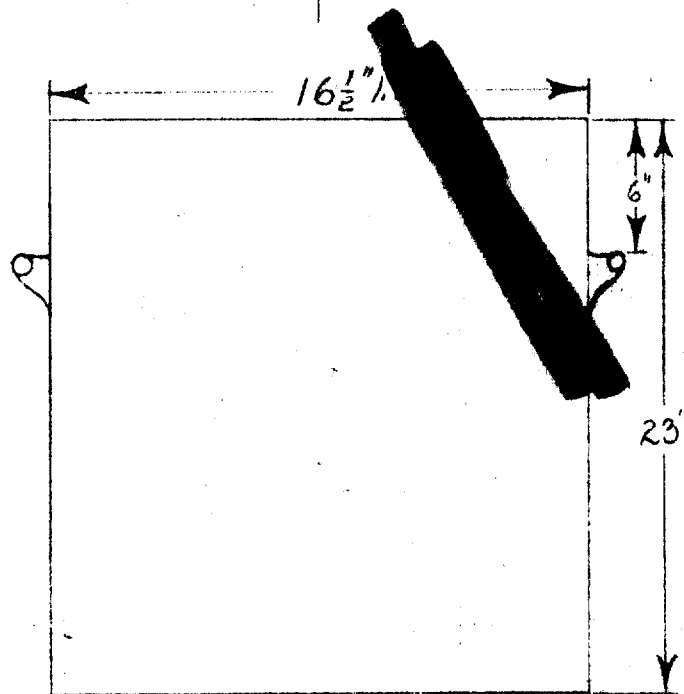
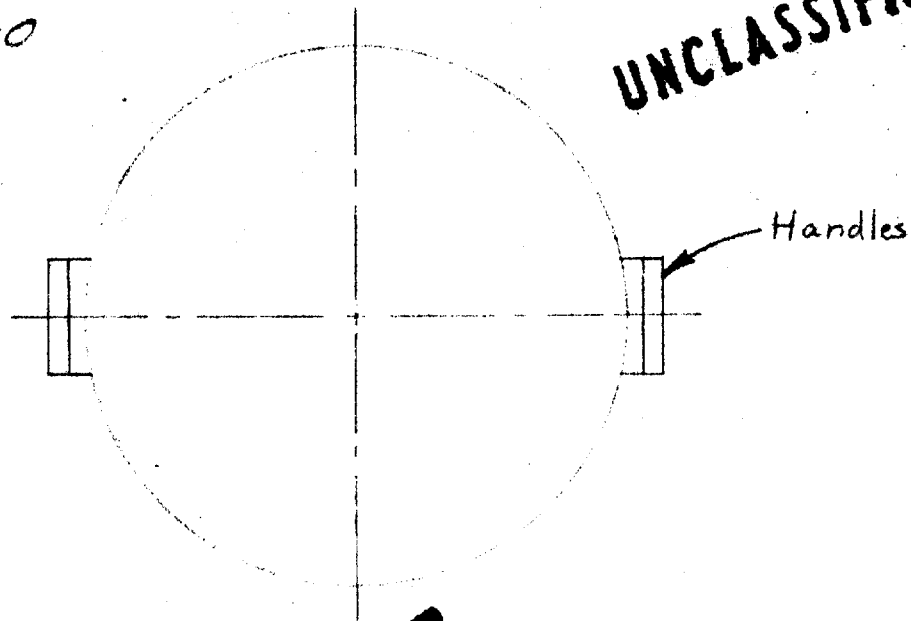
SECRET

SECRET

G.I. Can for S.N. Bottles

3540

UNCLASSIFIED



Material: Galvanized Iron

Can must not leak and must be of sturdy construction. Details of construction left to the discretion of builder.

SECRET

SECRET

UNCLASSIFIED

Stop Lock Chamber

REMOTE CONTROL

PART NO. 

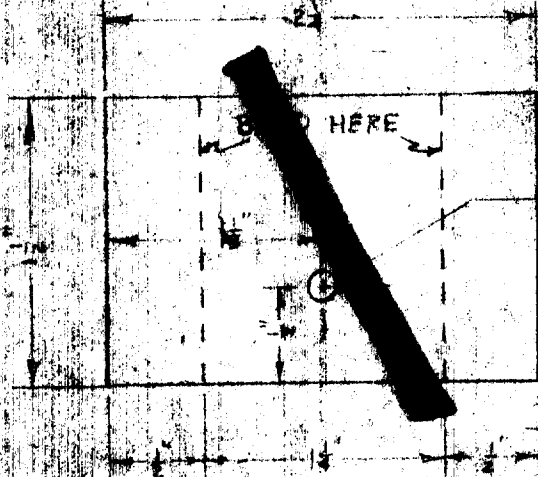
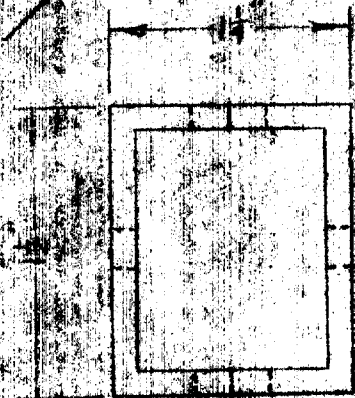
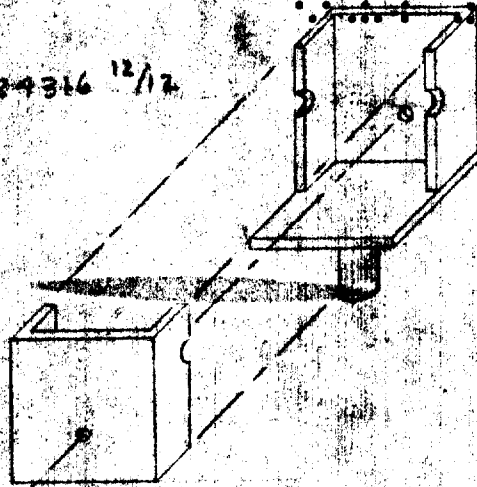
DRAWG. NO. CMS-24316 12/12

3560

THUMB NUT - BRASS

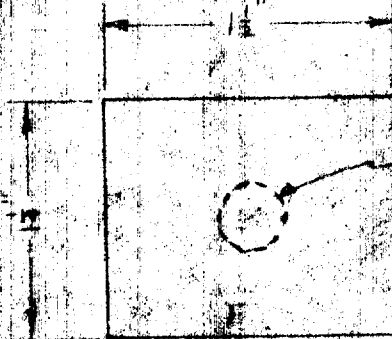
UNCLASSIFIED

NO. 8-32 BOLT
BRASS



NO. 18 DRILL THROUGH

BRASS - MAKE TWO



UNCLASSIFIED

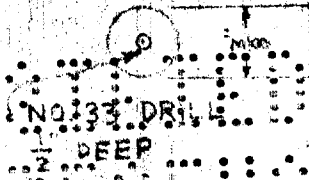
3/8" DRILL THRU
AFTER ASSEMBLY
BOTH ENDS

NO SOLDER

BRASS - MAKE ONE

BRASS - MAKE ONE

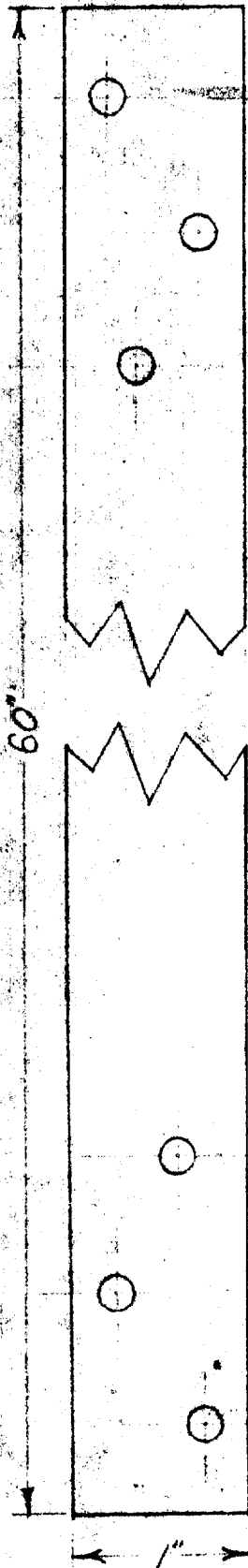
SOLDER THESE TWO
PARTS TOGETHER



NO. 38 DRILL THRU WALL
NO. 5-40 TAP THRU WALL

SECRET

UNCLASSIFIED



UNCLASSIFIED

Window

$\frac{1}{8}$ " x 1" Strap Iron

All holes $\frac{7}{16}$ " ϕ drill thru.

3590

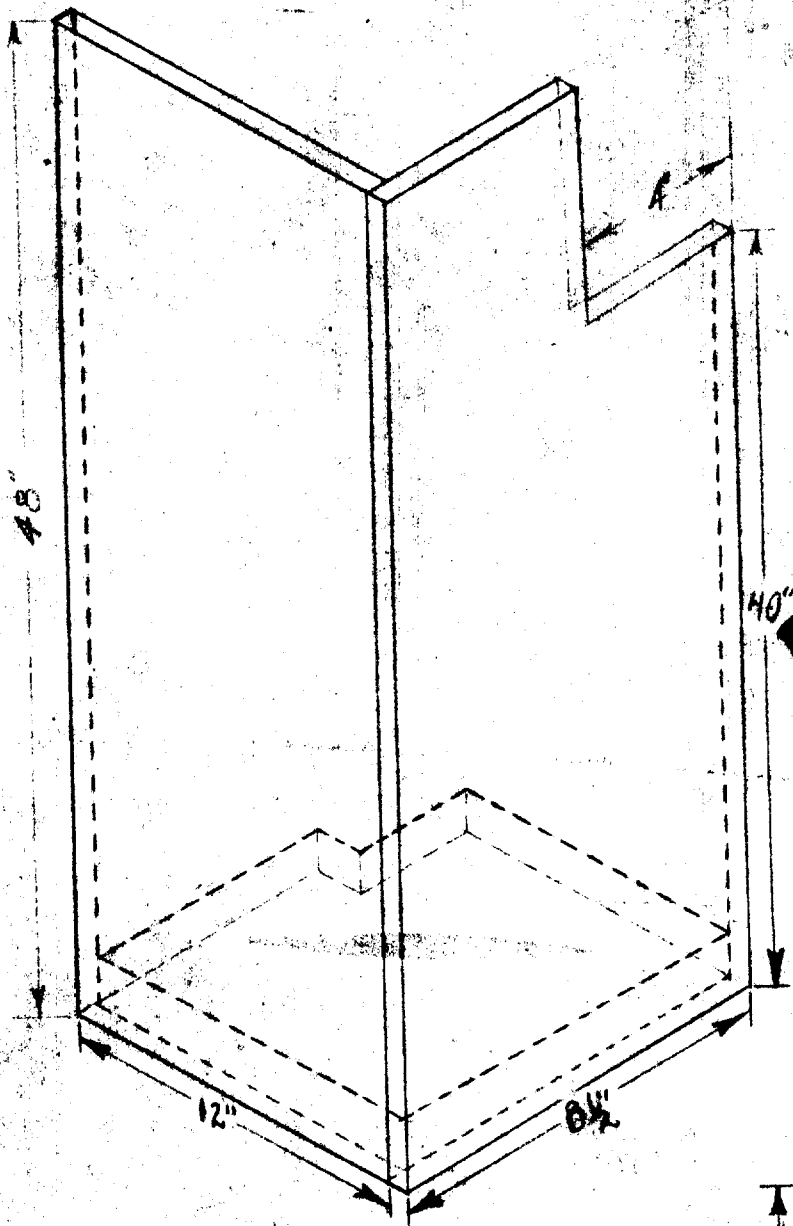
SECRET

24 Apr 45

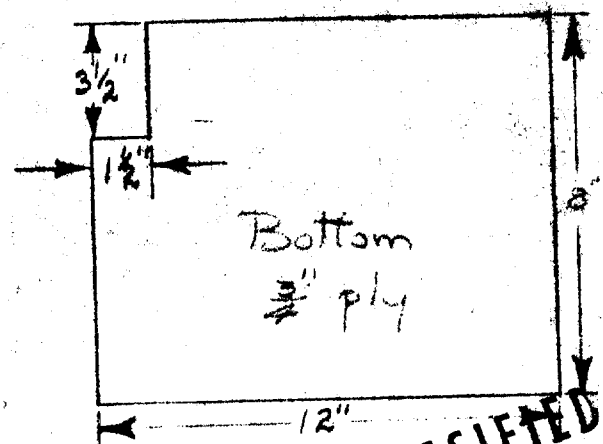
SECRET

Bubbler Shield
#3620

UNCLASSIFIED



Mat: Sides - $\frac{1}{2}$ " ply
 Bottom - $\frac{3}{8}$ " ply
 Pieces held together
 with screws.



SECRET

UNCLASSIFIED

CM 5

Scale - 1" = 6"
27 Mar. - 45

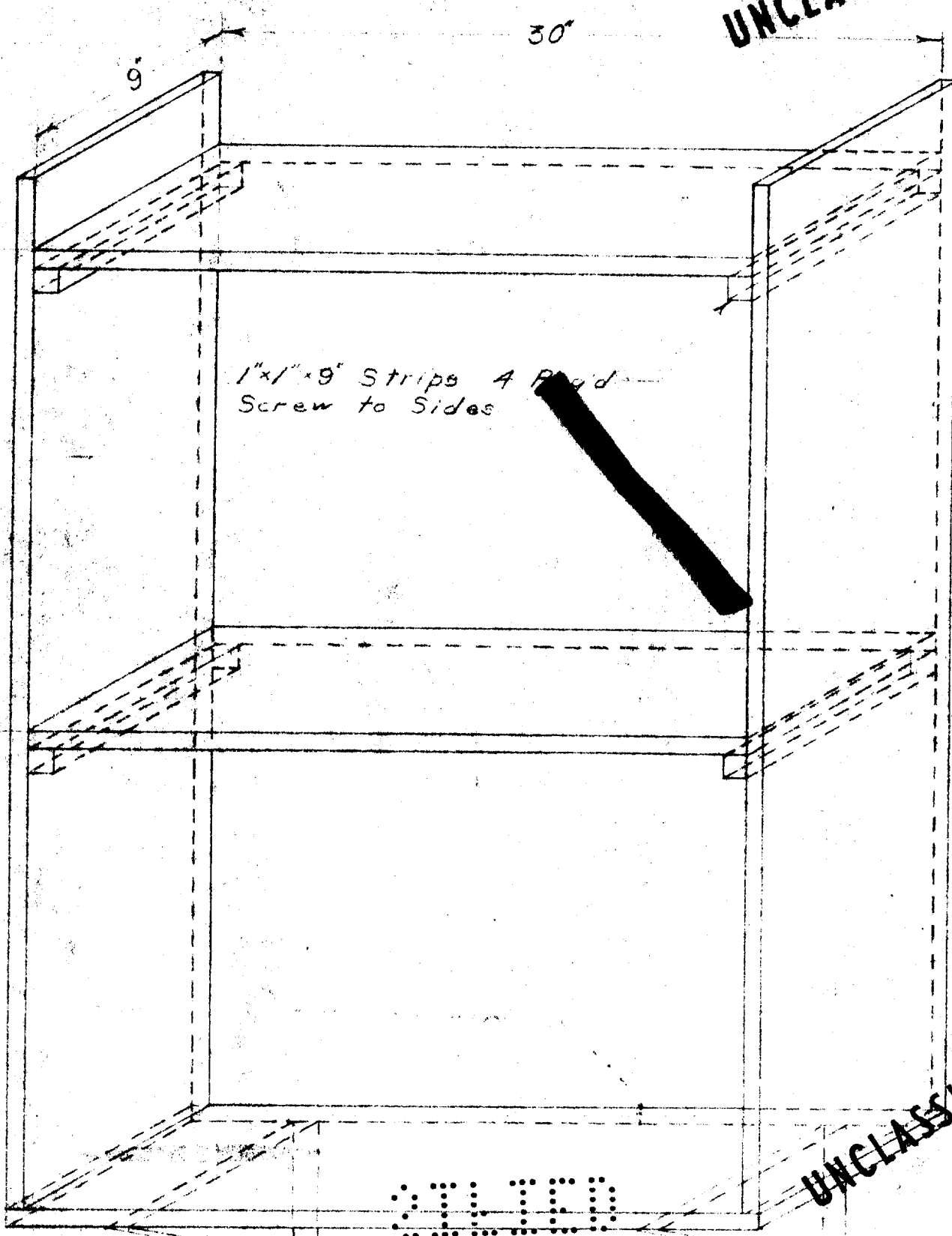
W. I. ... DITTEL

3630

SECRET

Make From 3/4" Plywood

UNCLASSIFIED



1"x1"x9" Strips 4 Plywood
Screw to Sides

UNCLASSIFIED

SECRET

ANGLE BRACKETS 90°
2 REQ'D. ONE
WITH WALL STOPS

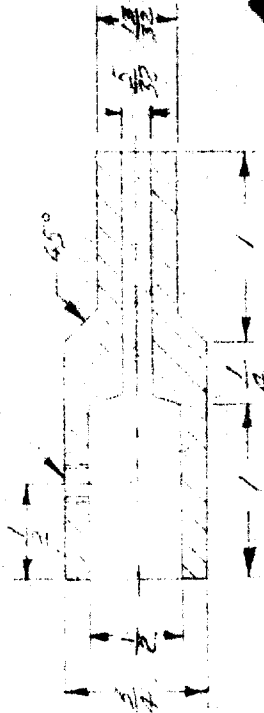
C1

UNCLASSIFIED

UNCLASSIFIED

ADAPTER FOR FLEXIBLE CABLE
PART 3640

DRILL & TAP 10-24



BRASS

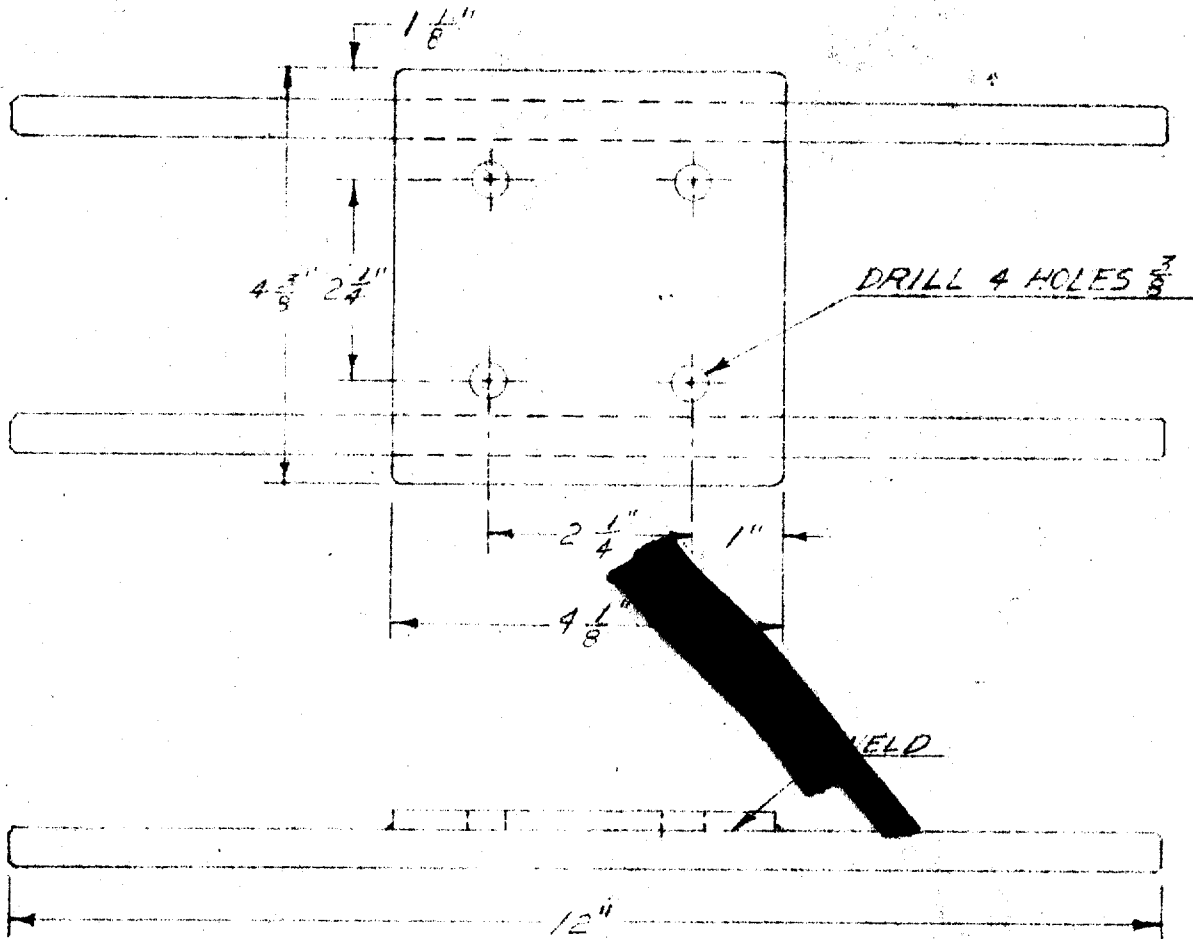
UNCLASSIFIED

UNCLASSIFIED

DELETED

AIR MOTOR SUPPLY
PART NO 3.7.30

UNCLASSIFIED



MAT: $\frac{3}{16}$ STEEL
 $\frac{1}{2}$ DIAM. STEEL ROD
MAKE TWO

DELETED

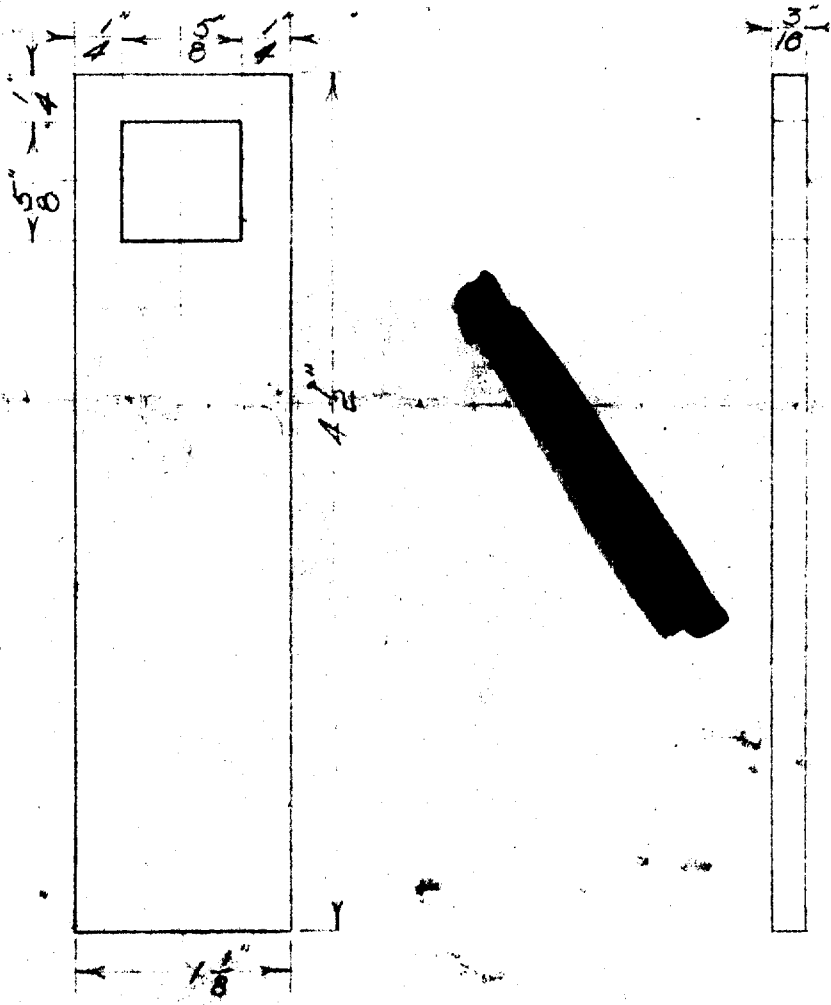
DELETED

UNCLASSIFIED

UNCLASSIFIED

UNCLASSIFIED

VALVE HANDLE
3 WAY VALVES
PART 3650

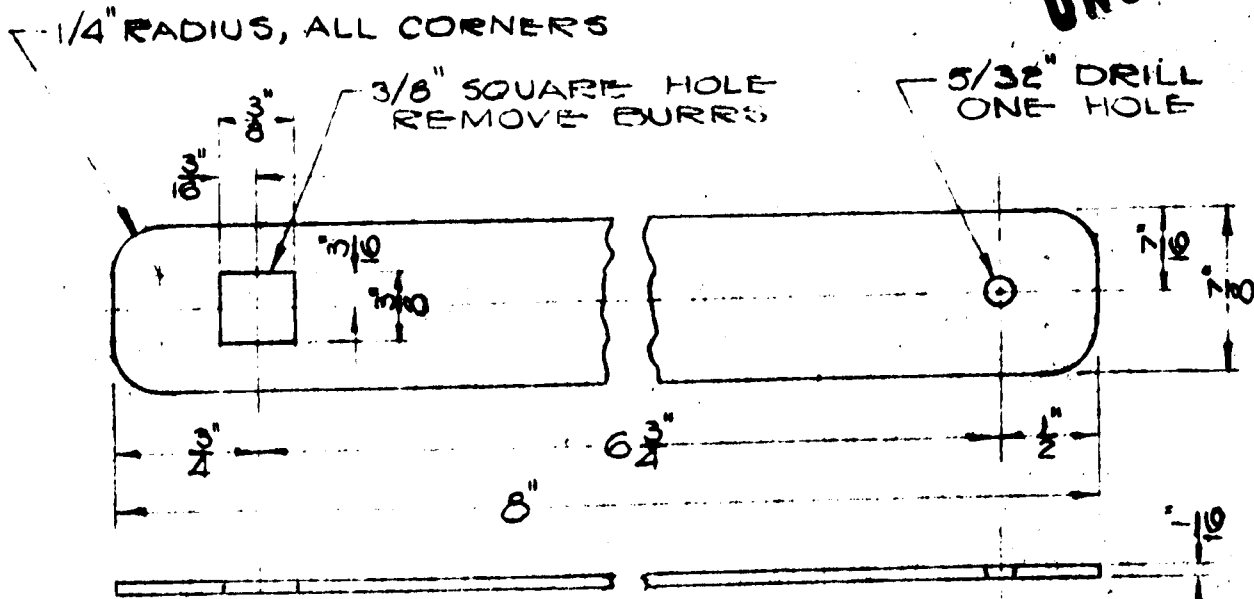


Make From 1/8" x 3/16" Strap

UNCLASSIFIED
PAGE 36

UNCLASSIFIED
30 Apr 45

UNCLASSIFIED



FIRE EXTINGUISHER
HANDLE
MAT'L. - BRASS
PART 3660 - part N^o

		APPROVED FOR CONST.						
		CHIEF ENG.						
		PROJ. ENG.						
		CHECKED	CMT	4-9-45				
LOWE	CM-5	DRAWN	RKW	4-9-45				
GROUP REPR.	GROUP NO.	LAYOUT OR SKETCH						
	FINISHED GROUND	INITIALS	DATE	REV. LET.	CHANGED ITEM WAS	DATE	BY	
	SMOOTH MACHINE	CALC. WT.	0	ADDITIONAL SHEETS	SHEET SIZE A			
ROUGH MACHINE	ACT. WT.	0			NO. 1A			
TOLERANCE EXCEPT AS NOTED	SUPERSEDED			MODEL OR TITLE	DRAWING NO.	TOTAL 1		
FRACTIONAL ± 1/64	SUPERSEDED BY			FIRE EXTINGUISHER HANDLE	Y-5032	SCALE FULL		
ANGLES ± 1/2°								
SHEET METAL ± 1/32								
DECIMALS NOTED								

DIETZGEN 107 BRITTON

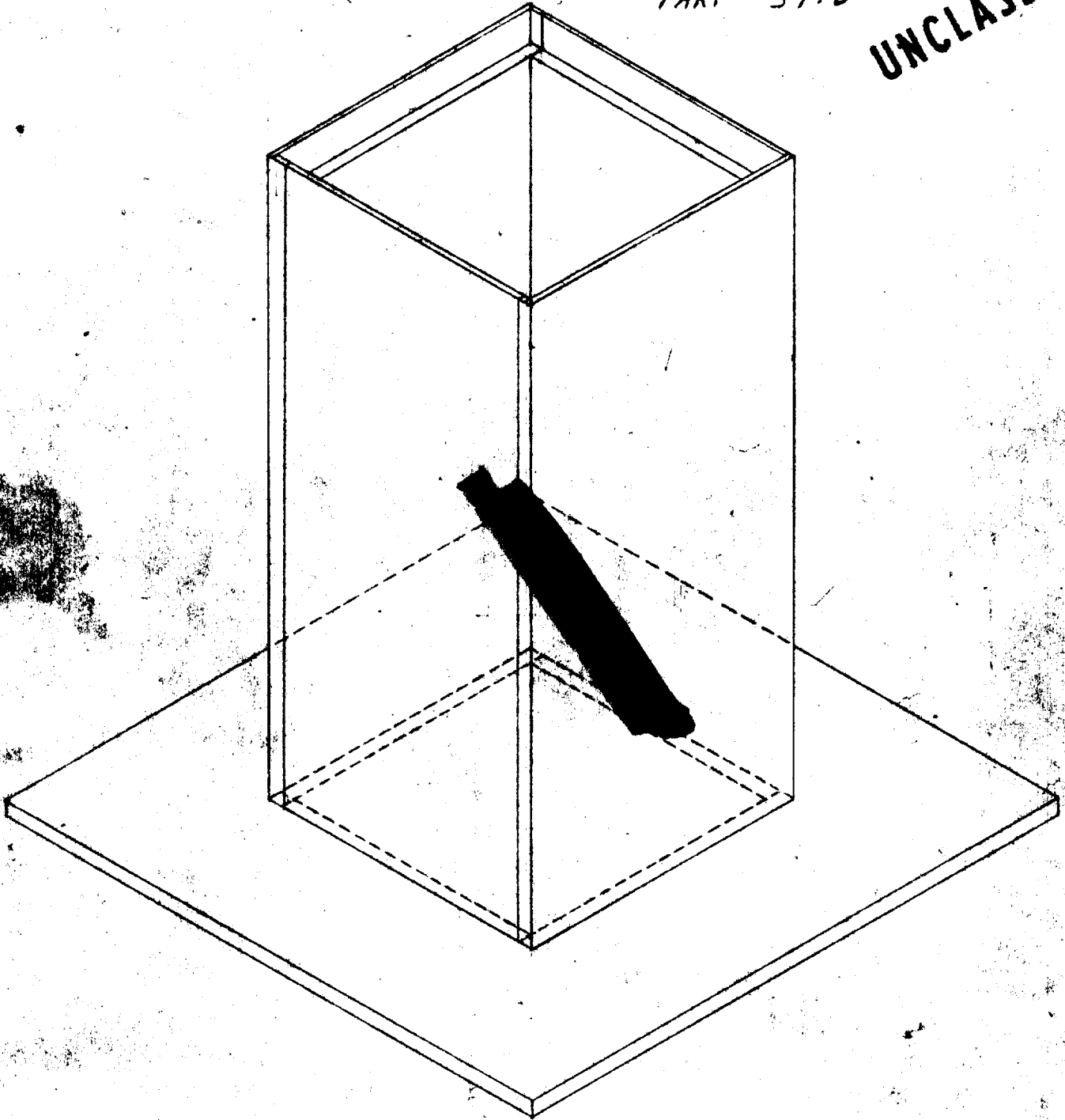
JACK 37

UNCLASSIFIED

0110

BOTTOM ASSEMBLY REAGENT Res. HOLDER
PART 3710

UNCLASSIFIED



Parts held together with screws. Joints Glued.

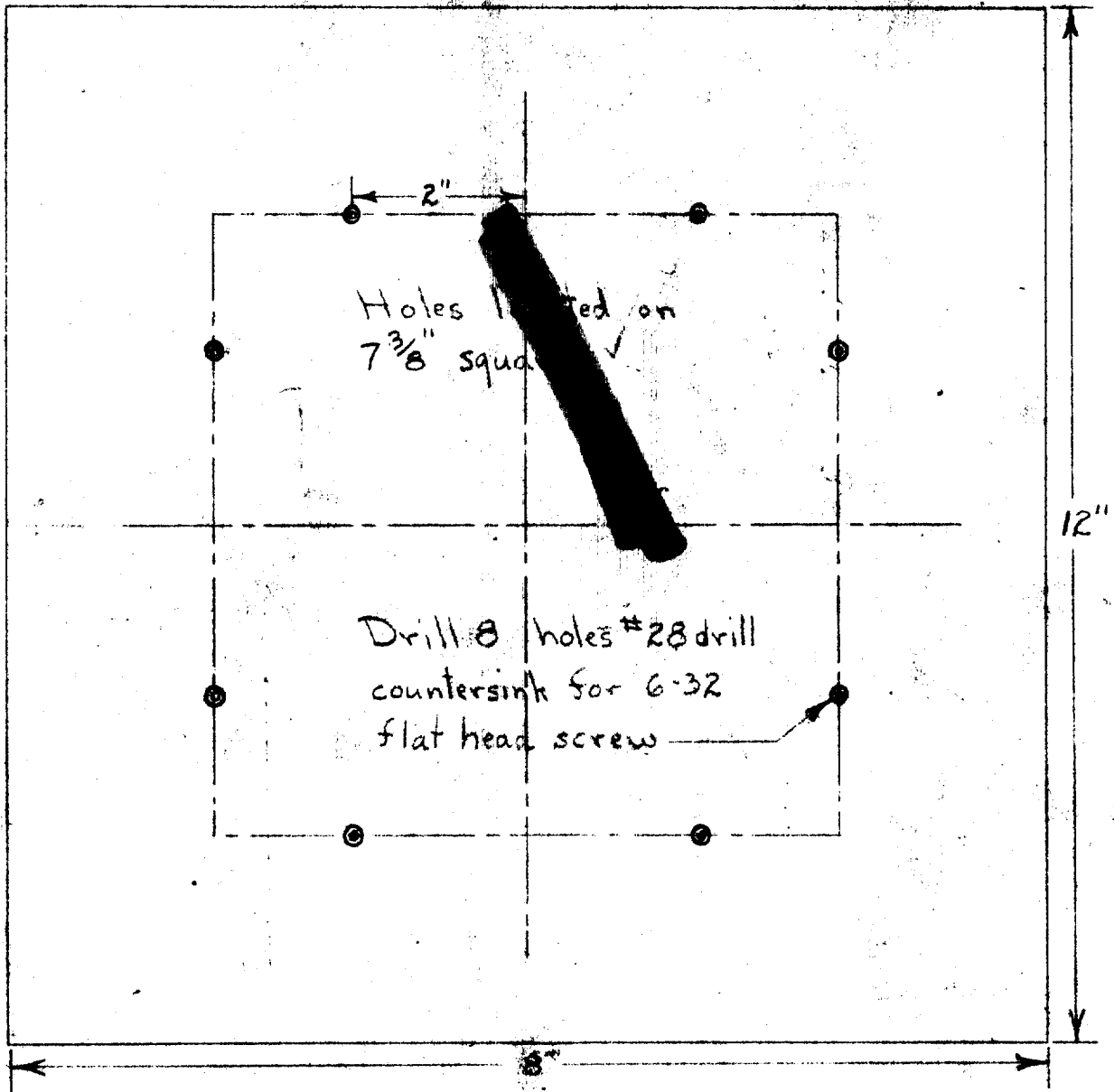
0110

UNCLASSIFIED

REF ID: A710

UNCLASSIFIED

BOTTOM: REAGENT RES. HOLDER
PART 3710



Mat: 3/8" Lucite - 1 req'd.

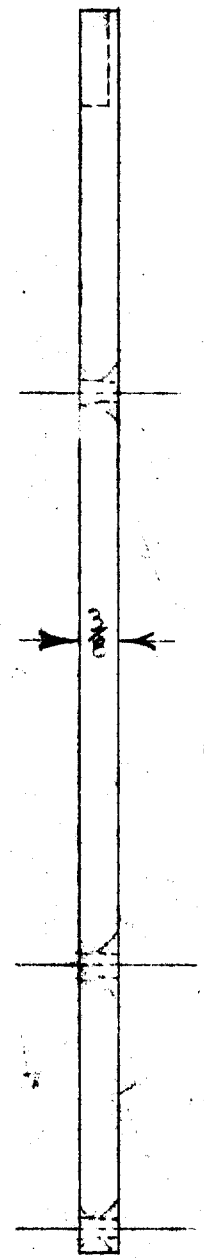
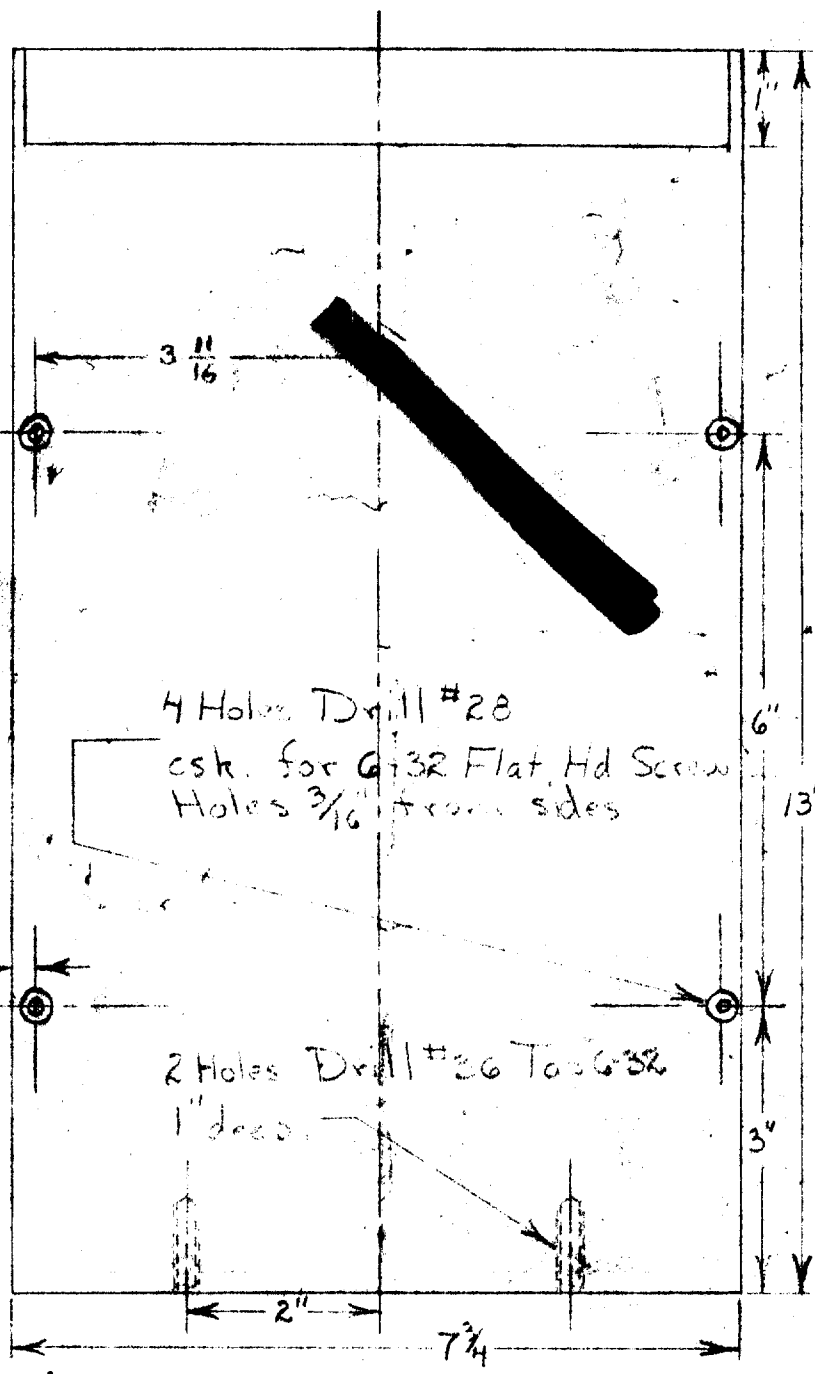
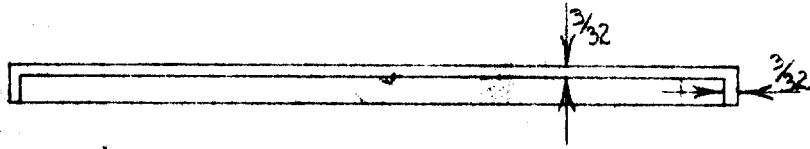
Note: Change in dimension would change this drawing and the assembly. Will not change the construction as holes are located from center of pc.

UNCLASSIFIED

UNCLASSIFIED

Front & Back Assembly

PART 3710



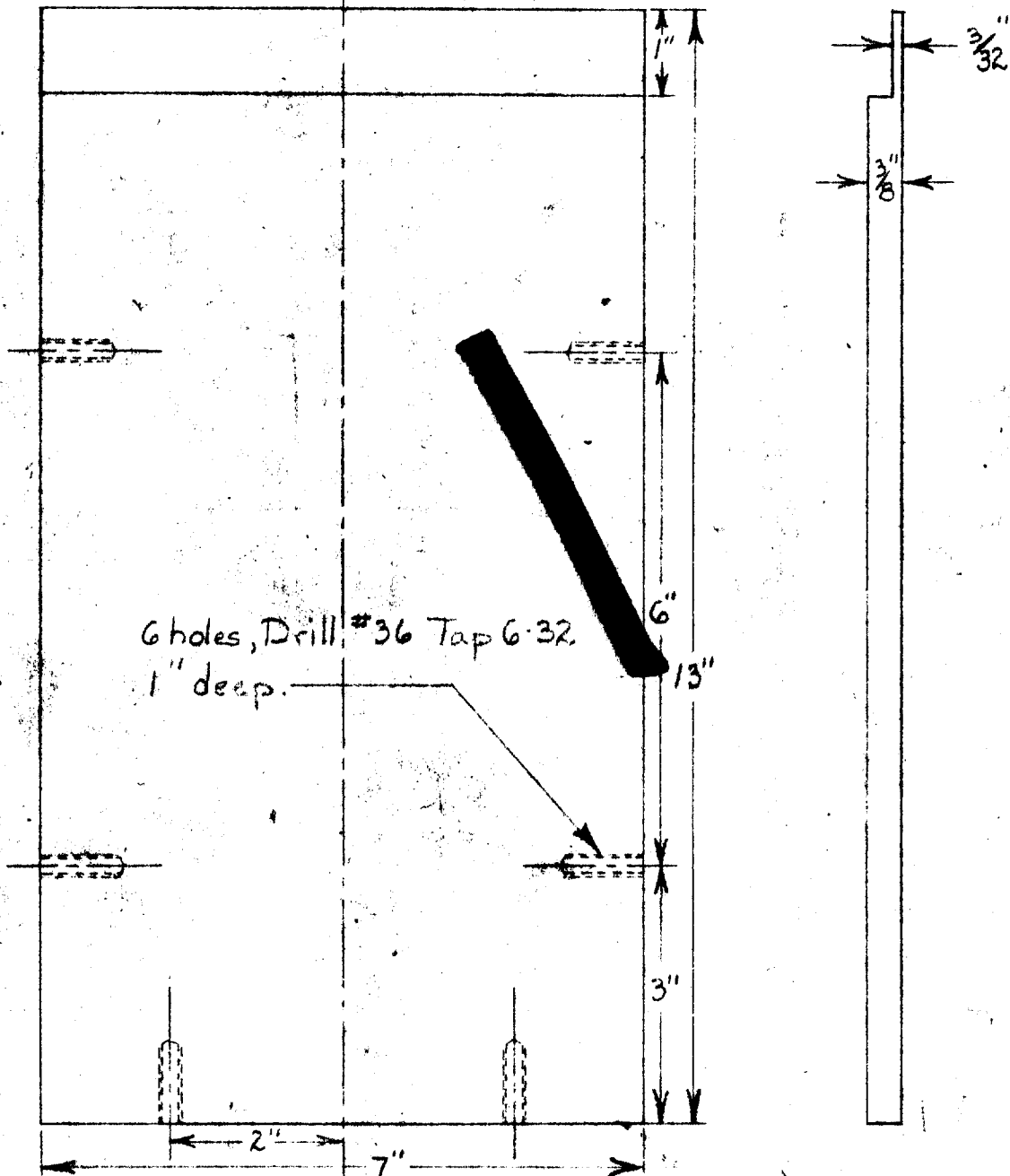
Mat 8 $\frac{3}{8}$ Lucite - 2 pcs req'd.

UNCLASSIFIED

SECRET

SIDES FOR REAGENT RES. HOLDER UNCLASSIFIED

PART 3710



Mat: 3/8" Lucite - 2 req'd.

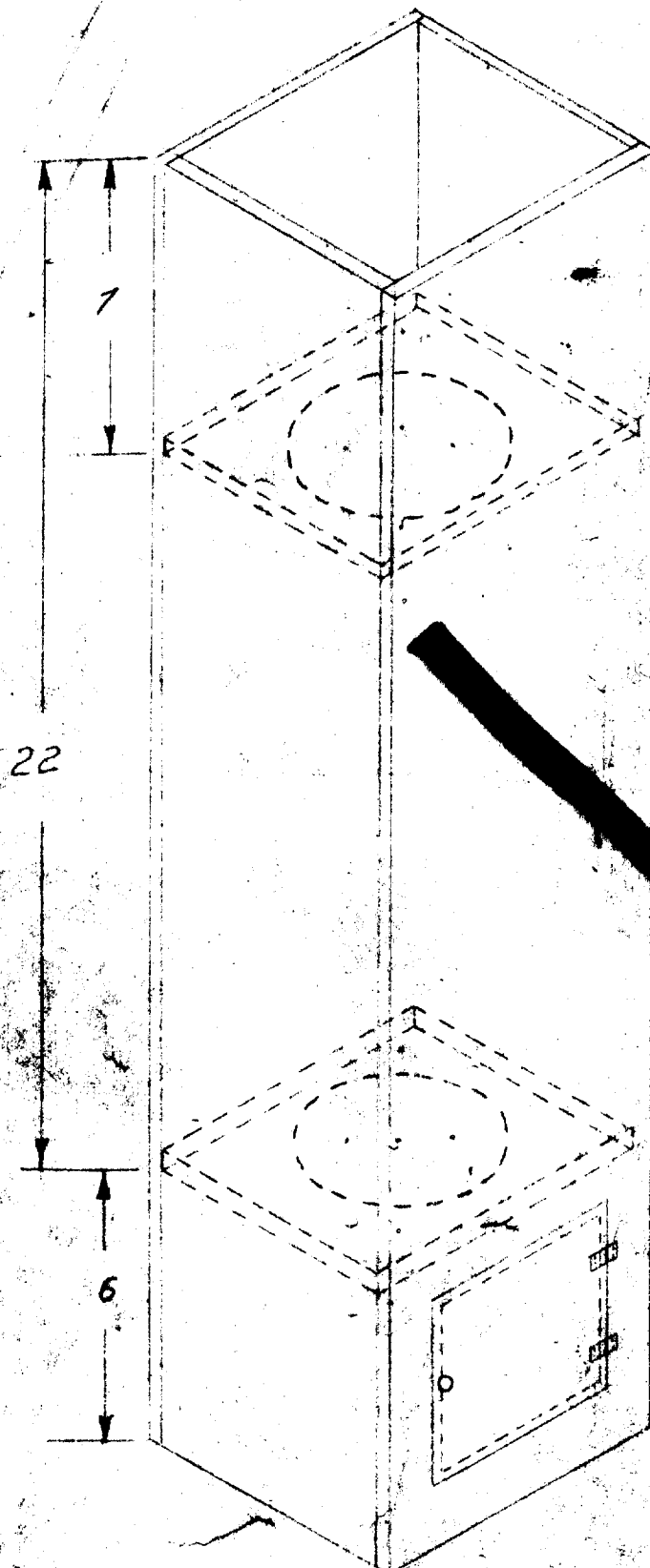
SECRET

UNCLASSIFIED

REAGENT RES. HOLDER

FIG. 10 PART 3710

UNCLASSIFIED



PARTS HELD TOGETHER
WITH SCREWS
JOINTS GLUED

TOP ASSEMBLY
PART 3710

REAGENT RES. HOLDER
PART 3710

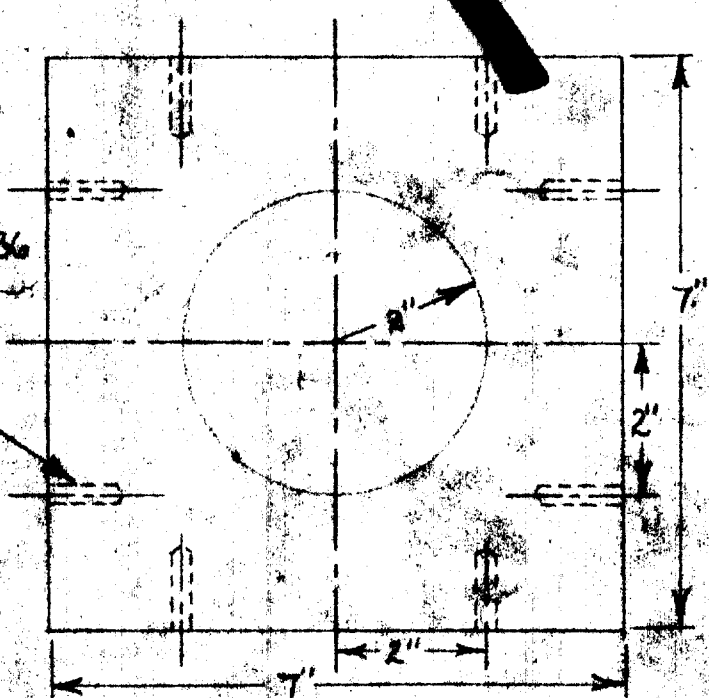
UNCLASSIFIED



Mat: 1/4" Lucite
1 Req'd.

Note: Do not glue this piece in place

Holder Drill #36
Tap G-32
1" Deep



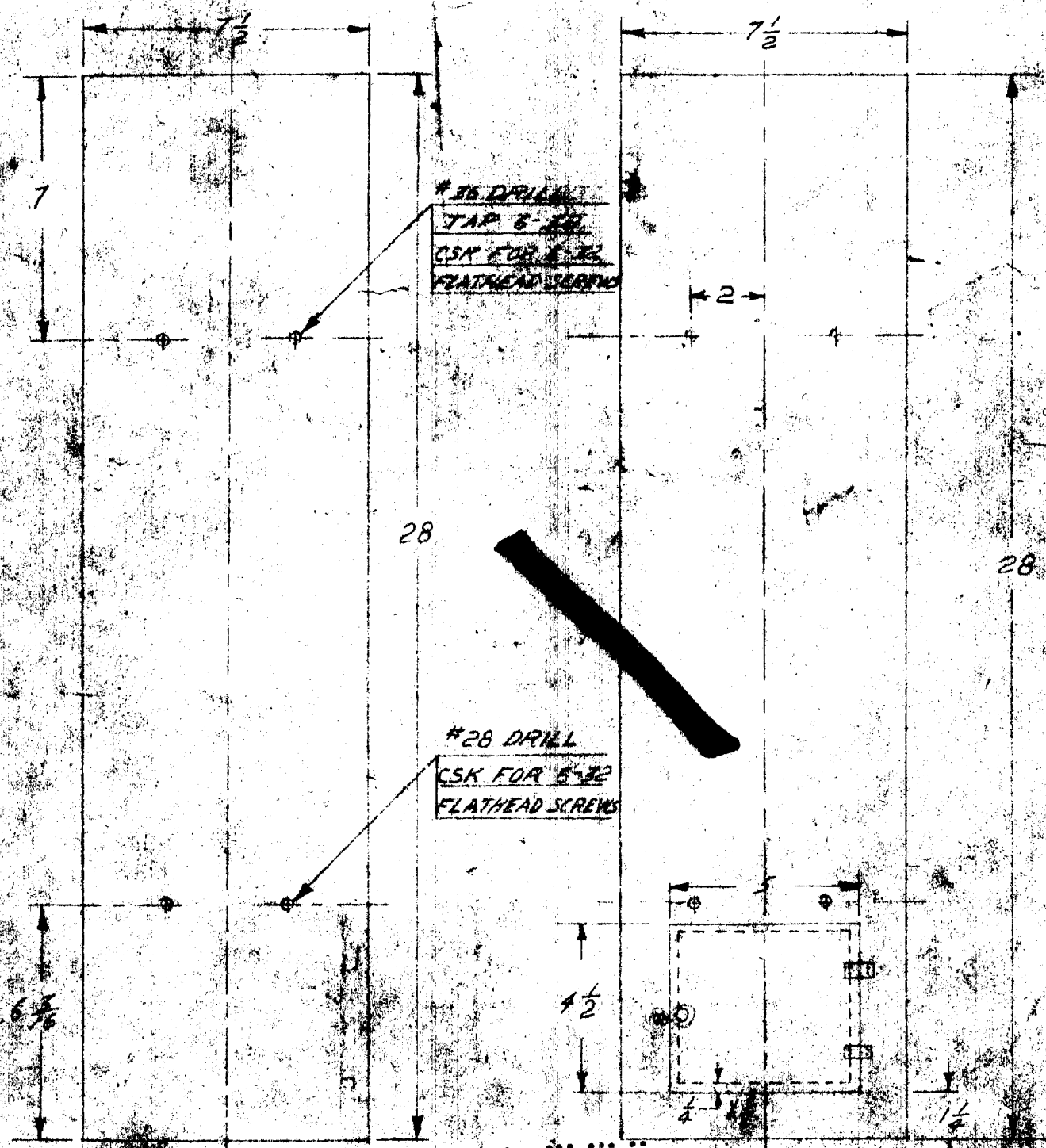
Mat: 3/8" Lucite
1 Req'd.

UNCLASSIFIED

UNCLASSIFIED

PERCENT RES. HOLDER
BACK AND FRONT FOR TOP ASSEMBLY

BACK PART 3710 FRONT



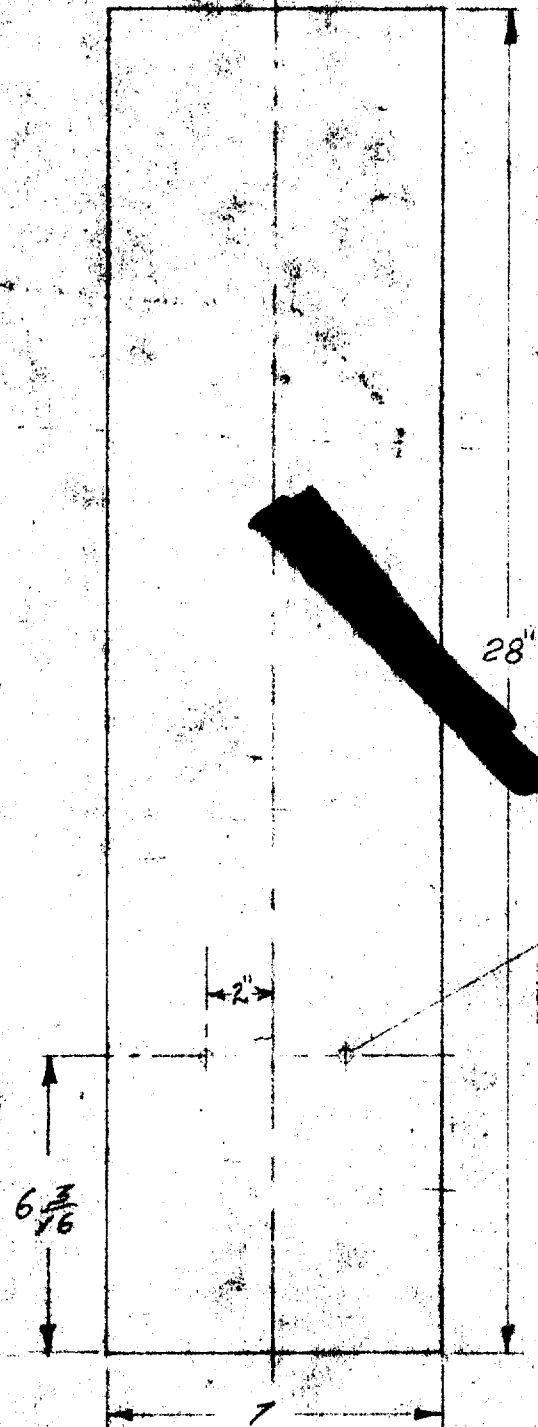
$\frac{3}{8}$ " LUCITE

UNCLASSIFIED

REAGENT RES. HOLDER

REAGENT RES. HOLDER
PART 3710

UNCLASSIFIED



#28 DRILL CSK
FOR FLATHEAD
SCREWS

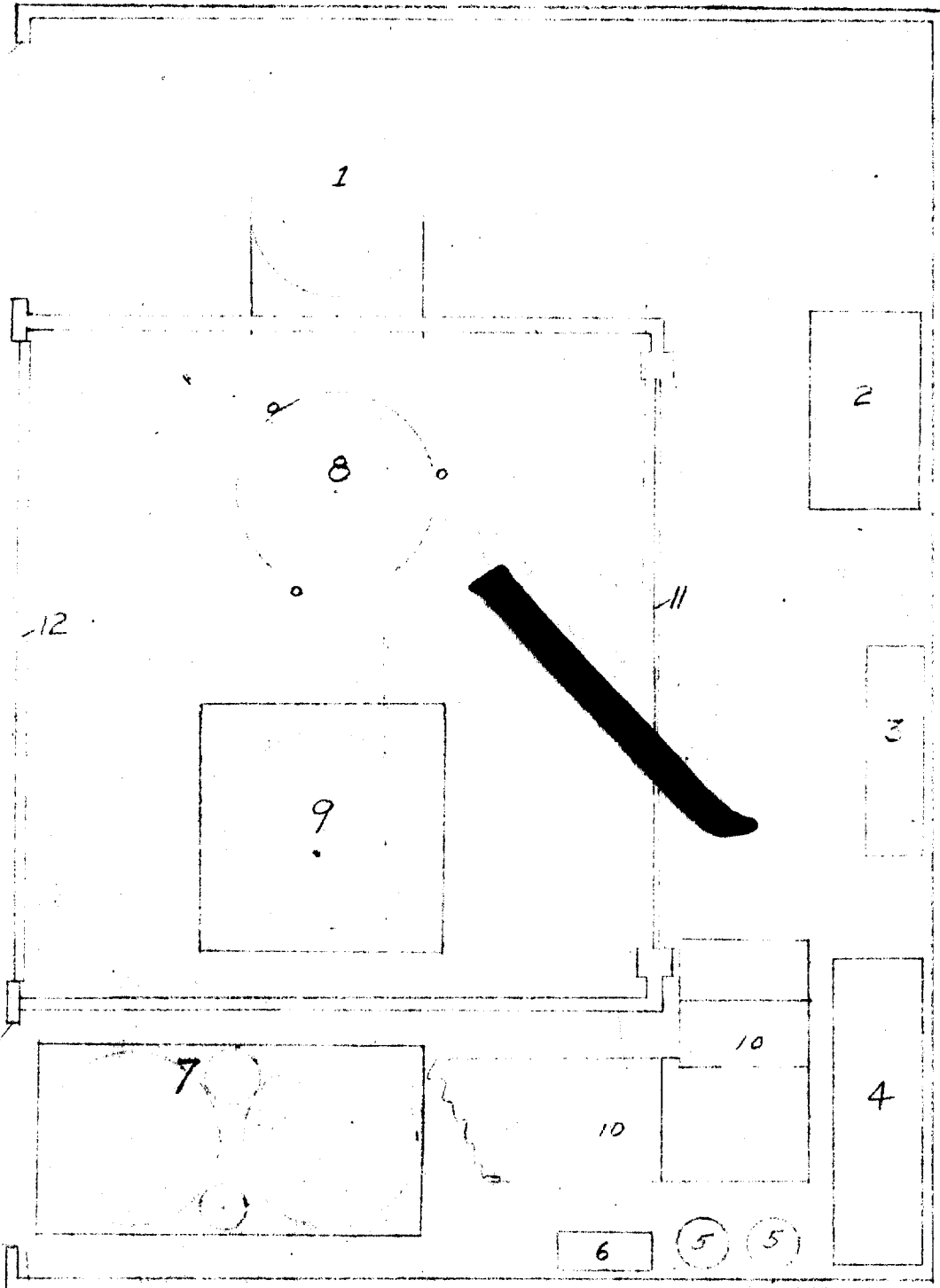
UNCLASSIFIED

SIDES FOR TOP ASSEMBLY

1/4" LUCITE
2 REQUIRED
SCALE 1/4" = 1"

CUBICLE LABORATORY
SCHEMATIC DRAWING

UNCLASSIFIED



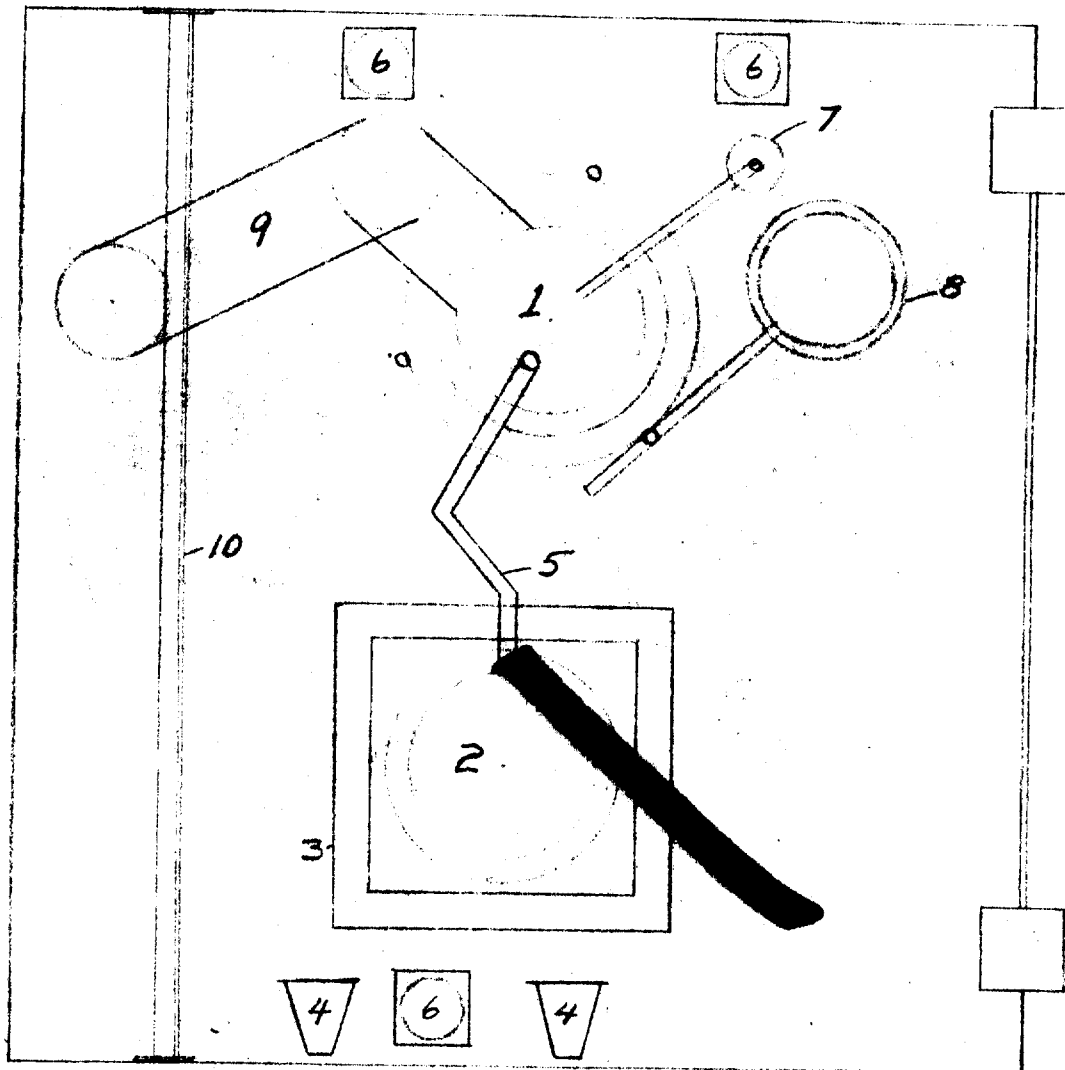
- 1. Ventilating Duct
- 2. Circulating Pump
- 3. Resistance Thermometer
- 4. Solution Shelf
- 5. CO₂ Cylinders
- 6. Coolant Reservoir
- 7. Supernatant Bottles in Dolly
- 8. Boiler (suspended)
- 9. Extractor on Support Block
- 10. Steps and Platform
- 11. Window
- 12. Removable Partition

UNCLASSIFIED

SECRET

EQUIPMENT PLACEMENT IN HOOD

UNCLASSIFIED



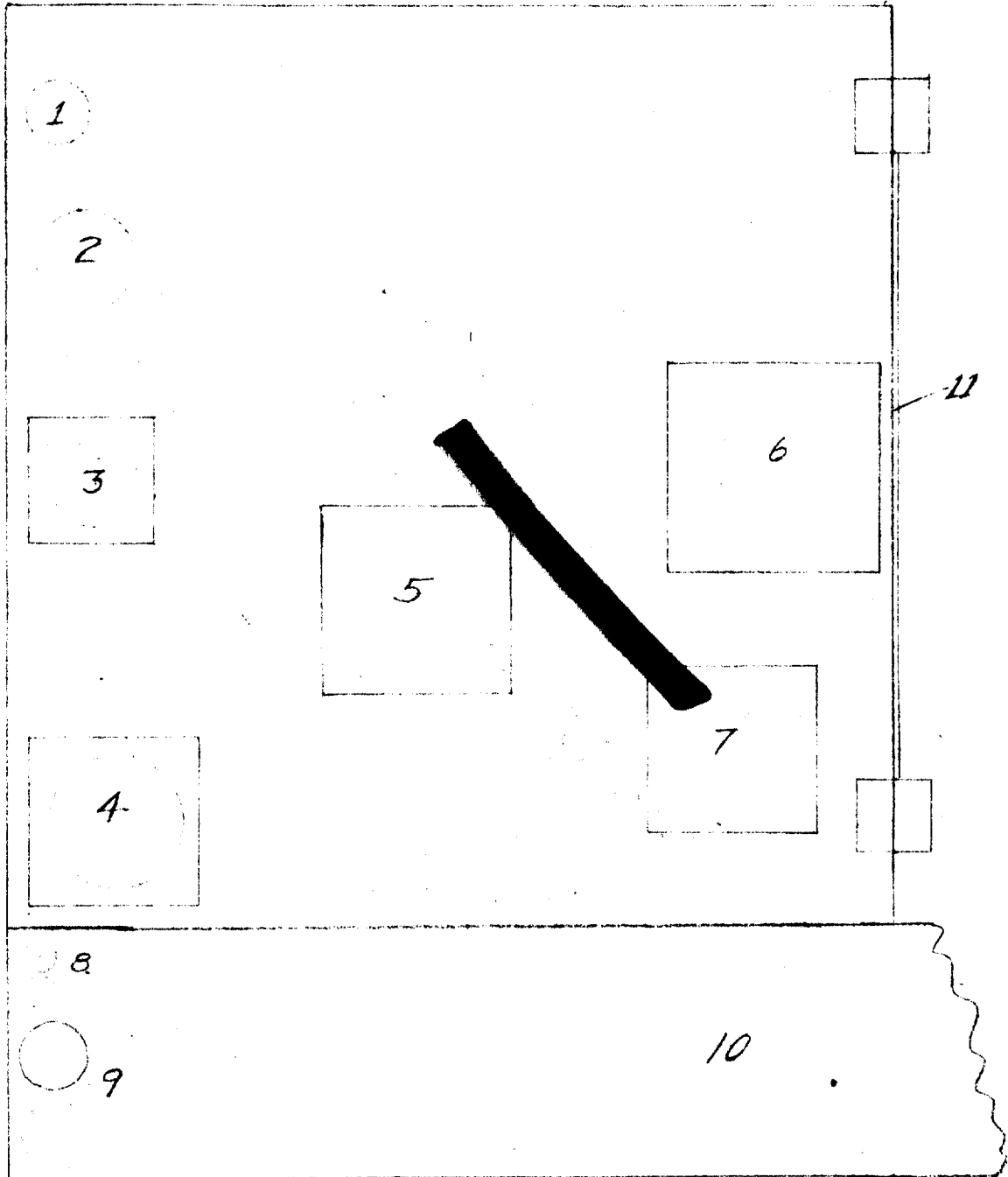
- | | |
|-------------------------------------|---------------------------|
| 1. Boiler | 6. Wolff Bottles |
| 2. Extractor | 7. Transfer Apparatus |
| 3. Support Block | 8. Transfer Bottle Holder |
| 4. Nozzles (CO ₂ system) | 9. Ether Vapor Tube |
| 5. Boiler Introducer Tube | 10. Angle Iron Support |

SECRET

UNCLASSIFIED


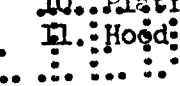
Hood Top-Placement

UNCLASSIFIED



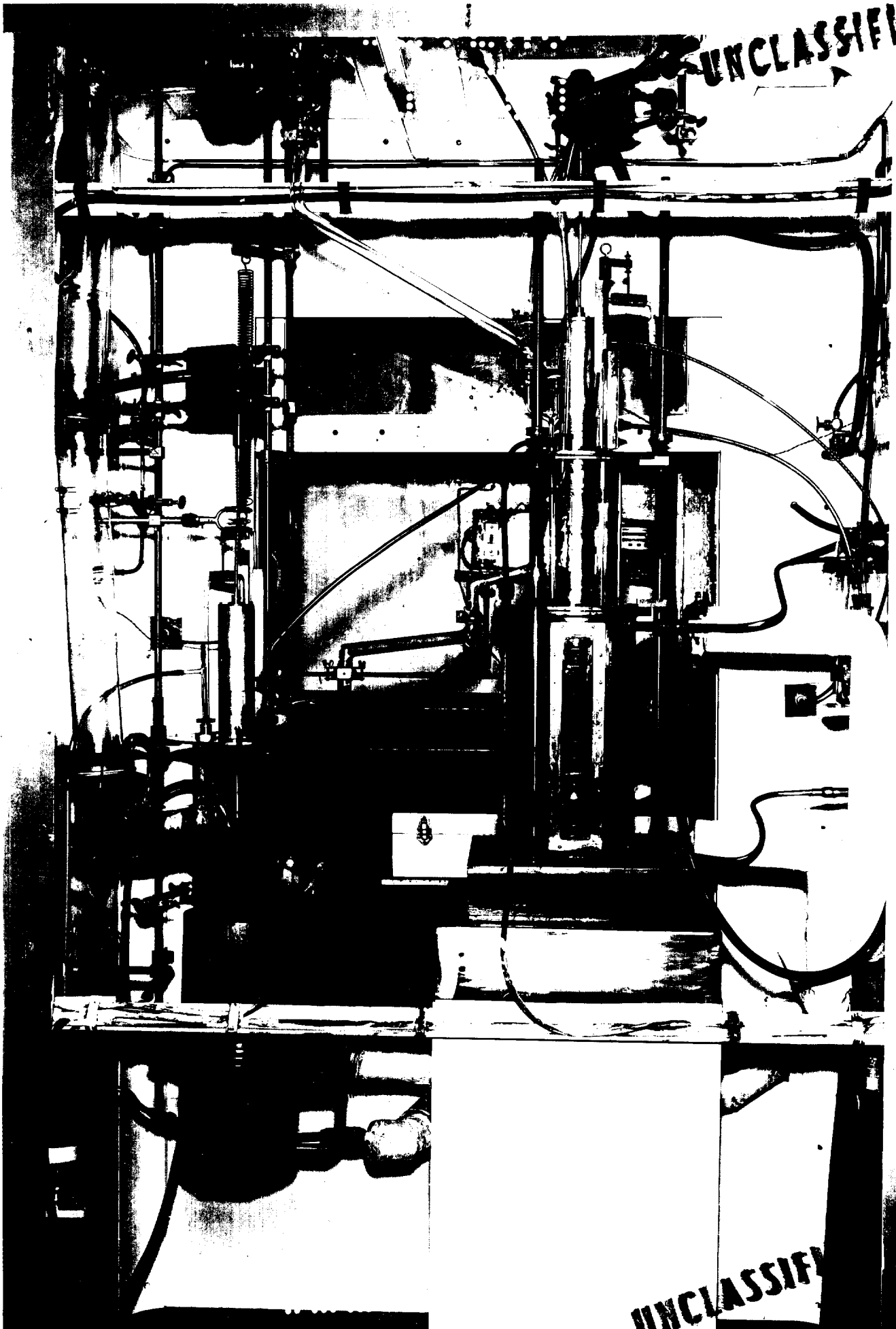
- 1. Vapor Safety Tube
- 2. Condenser
- 3. HNO₃ Reservoir
- 4. Ether Reservoir
- 5. Trap Door

- 6. Reagent Reservoir
- 7. Window
- 8. Line Traps
- 9. Bubblers
- 10. Platform
- 11. Hood Window



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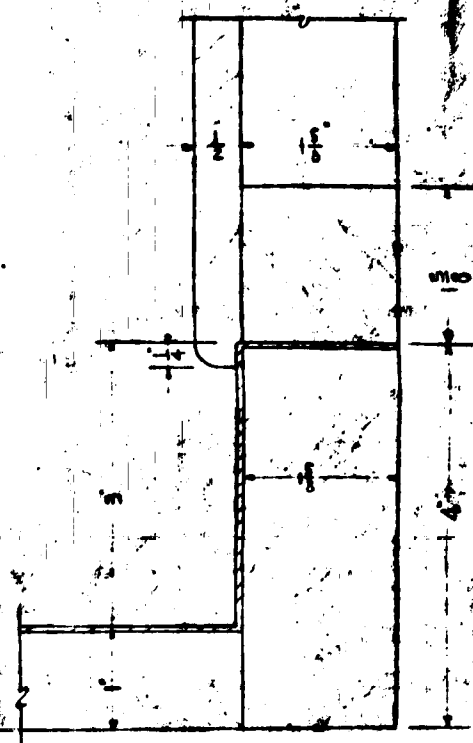
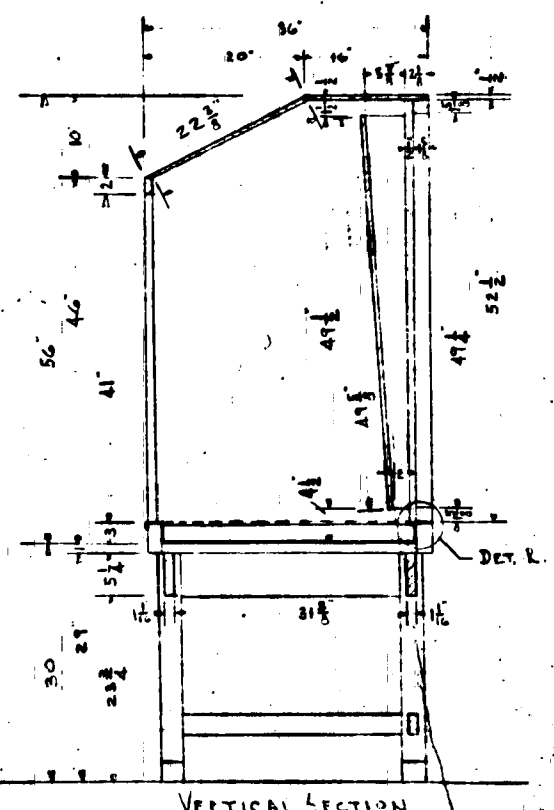
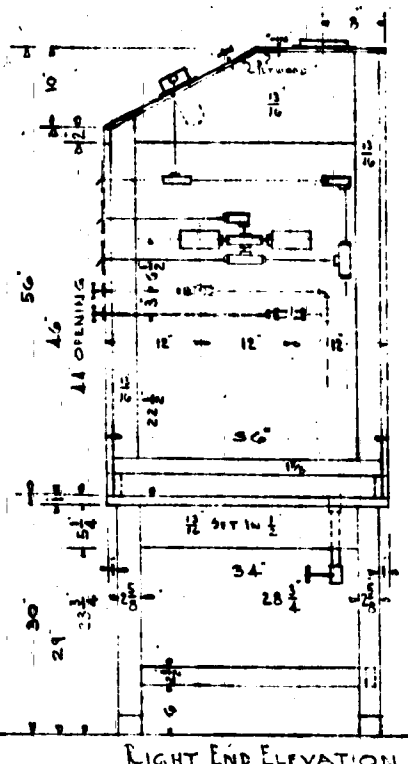
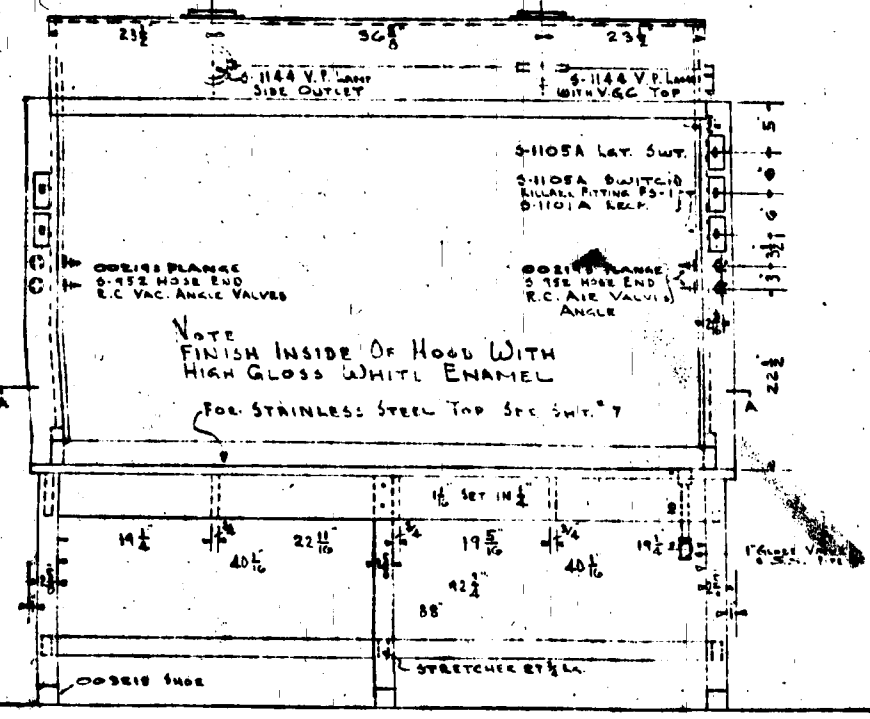
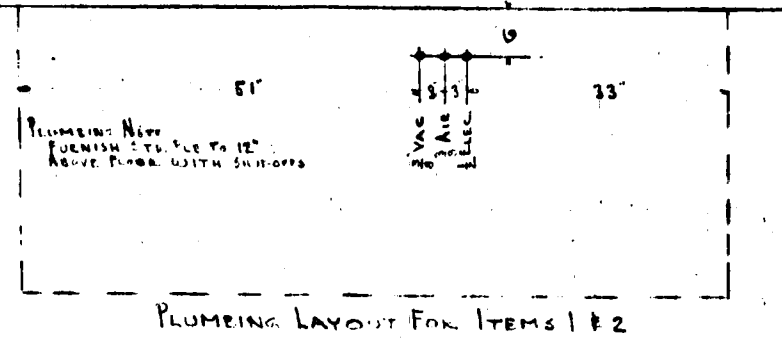
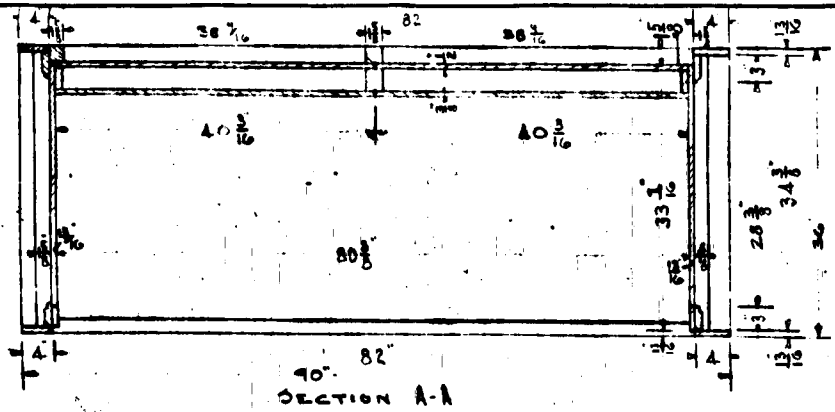
UNCLASSIFIED

UNCLASSIFIED



UNCLASSIFIED

UNCLASSIFIED



ITEM ① TWO TYPE R.C FUME HOODS AS SHOWN

TELEIAL HARDWOOD

UNCLASSIFIED

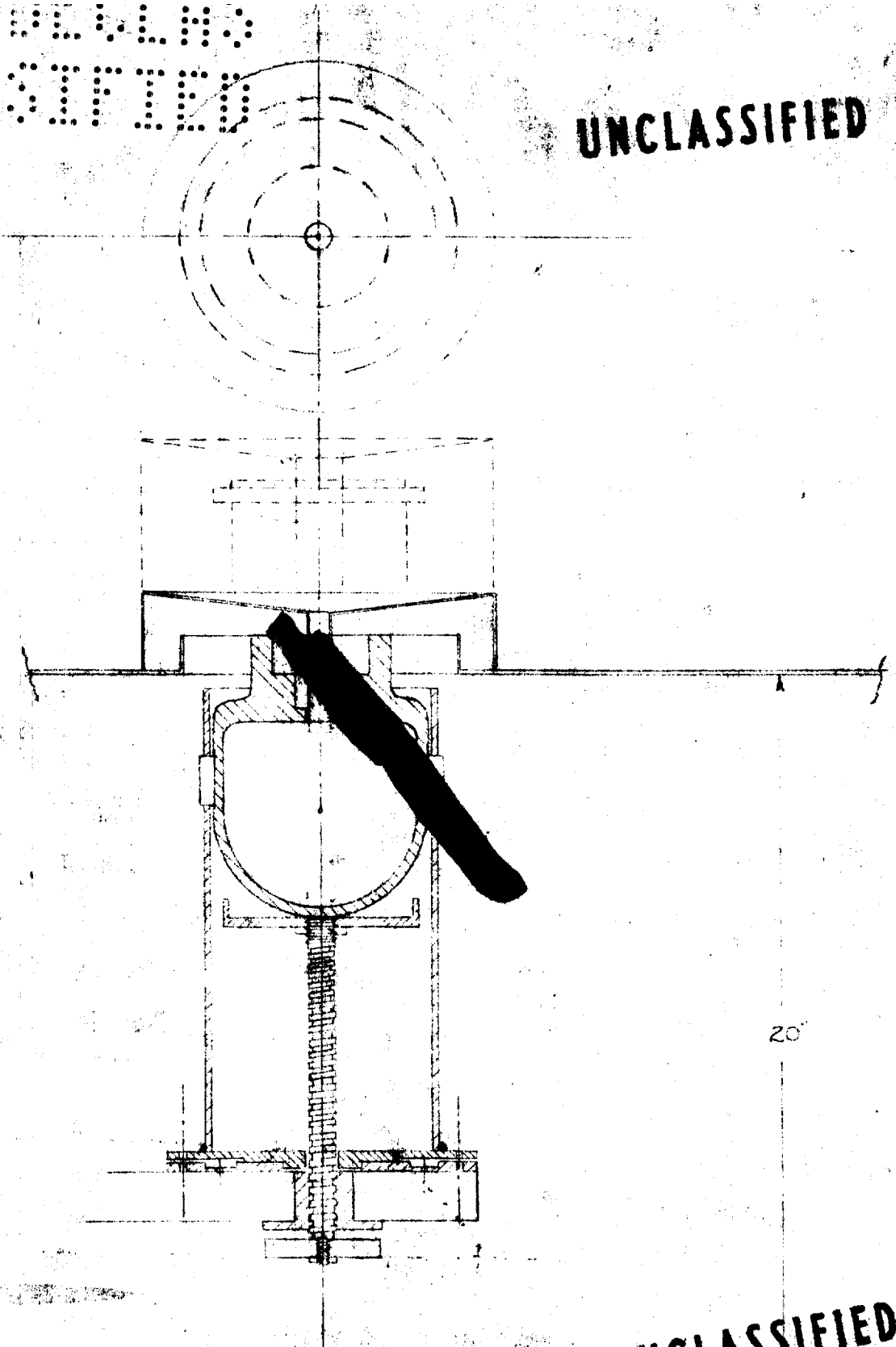
GRAY	PLUMBING	DE BRASS	BLUE PRINTS				REVISIONS					
			PRINTED	COPIES	PURPOSE	PRINTED	COPIES	PURPOSE	REVISION	DATE	CHECK	

KEWAUNEE MANUFACTURING COMPANY
Adrian, Michigan

CUSTOMER	ORDER NUMBER	DRAWN BY	DATE	SCALE	SHEET
	W-3338	MILNER			7

SECRET

UNCLASSIFIED



20

UNCLASSIFIED

SEE DETAILS

1 BENCH

SECRET

Rough Cut Assembly

PART 4100

SCALE 1/2 SIZE

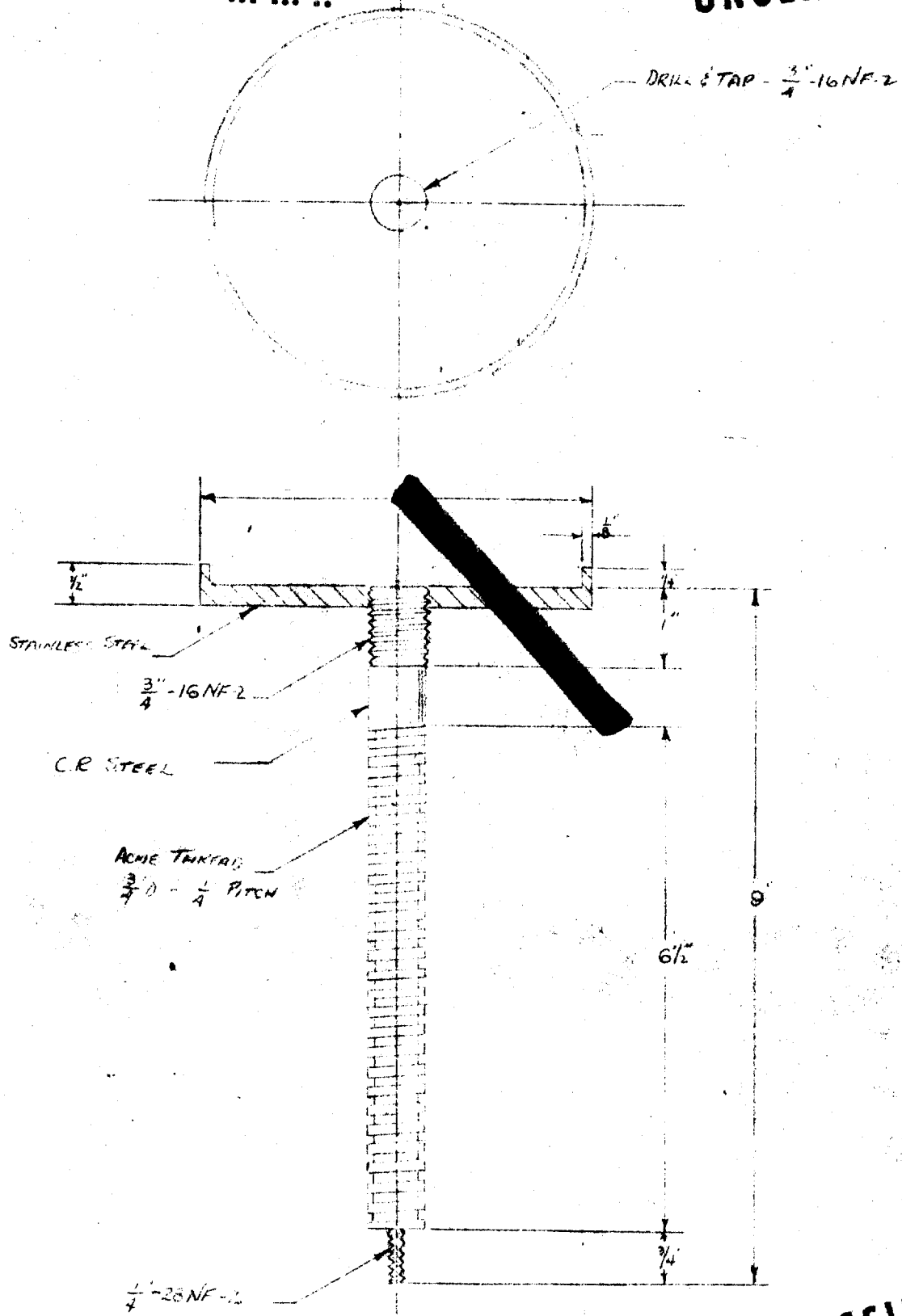
Pump Motor Assembly

PAGE 101

F. J. Taylor

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED

UNCLASSIFIED



UNCLASSIFIED

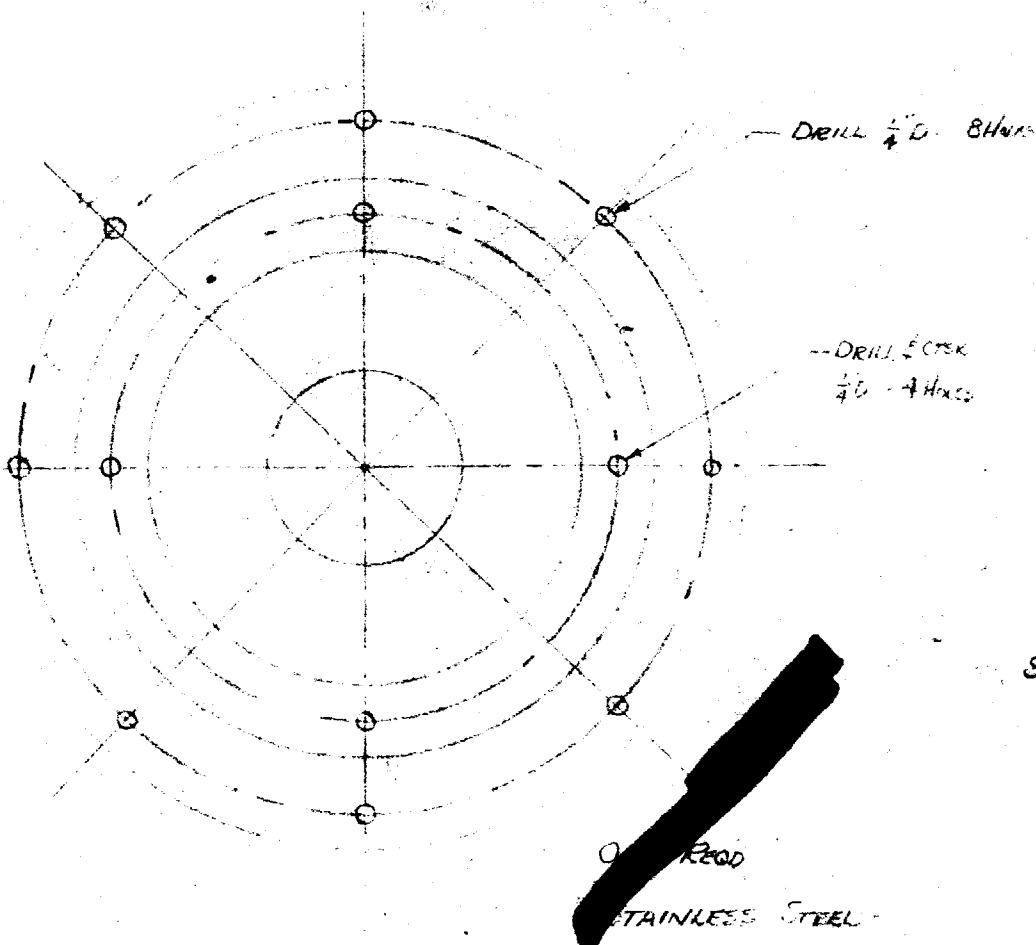
ROUGH CUT

R. B. BAKER, HANCOCK & HANCOCK SCREEN

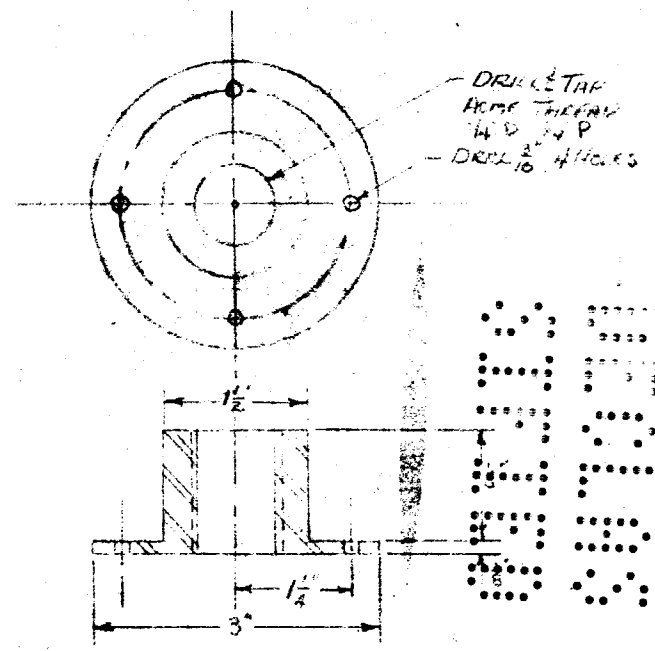
PART 4110-D

DATE 1/2/25

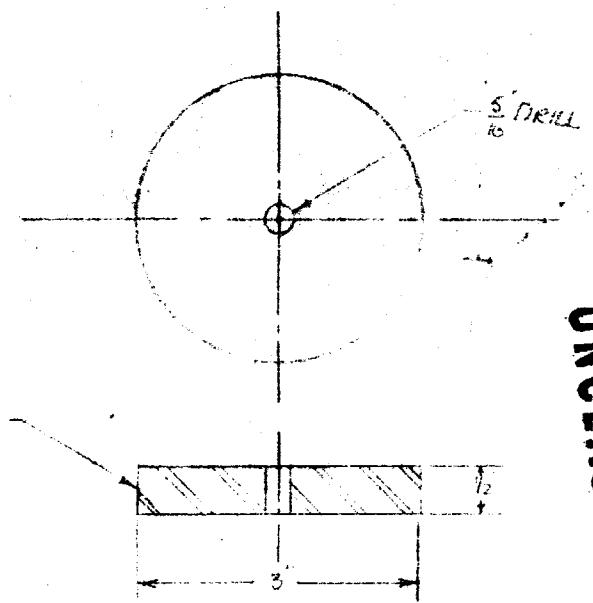
UNCLASSIFIED
PAGE 103



BOMB HOLDER - BASE PLATE



SCREW BUSHING - ONE ROD - STAINLESS STEEL



PART 4110-A SCREEN CONTROL WHEEL
ONE ROD - STAINLESS STEEL

SCALE 1/2" SIDE

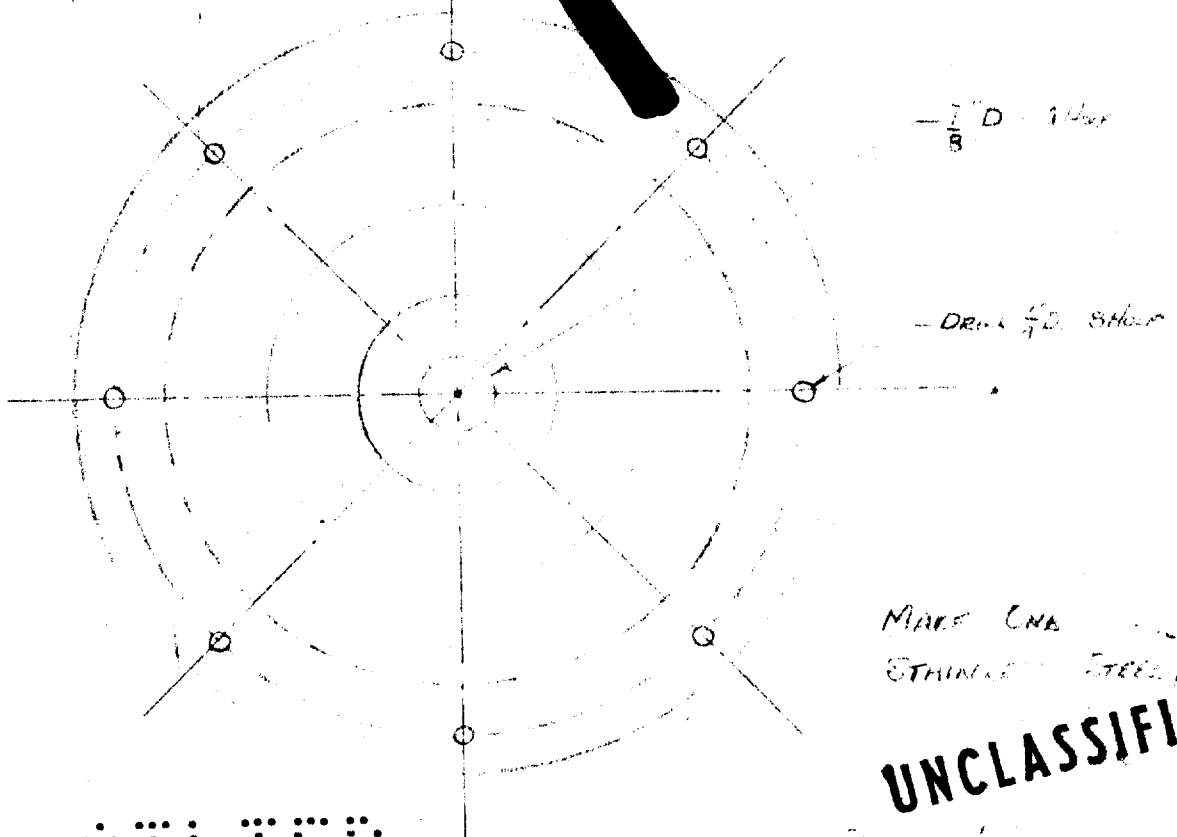
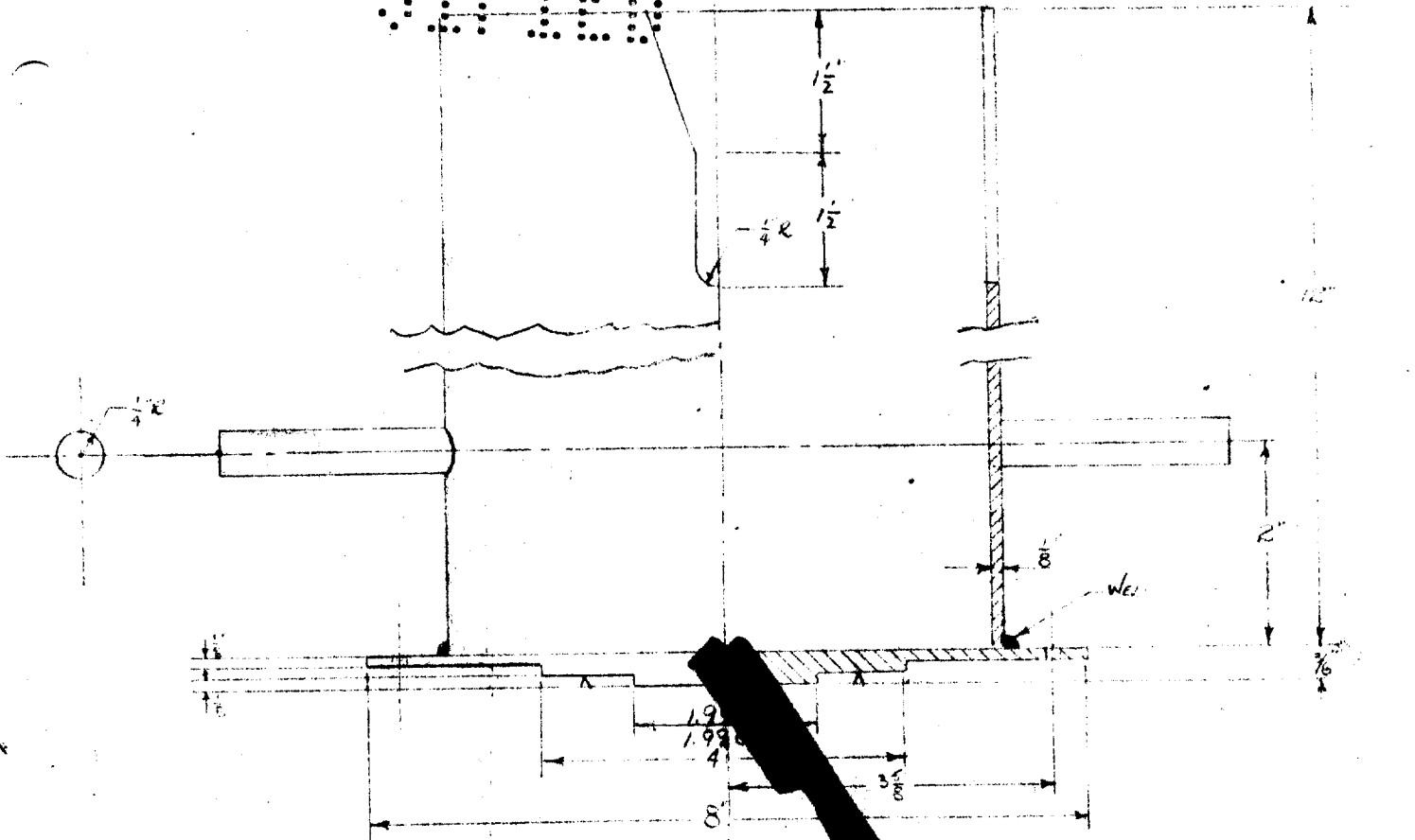
5/9/53 FCT

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UNCLASSIFIED

SECRET

UNCLASSIFIED



UNCLASSIFIED

ROUGH CUT

HOME HOLDER DETAILS

PAGE 104

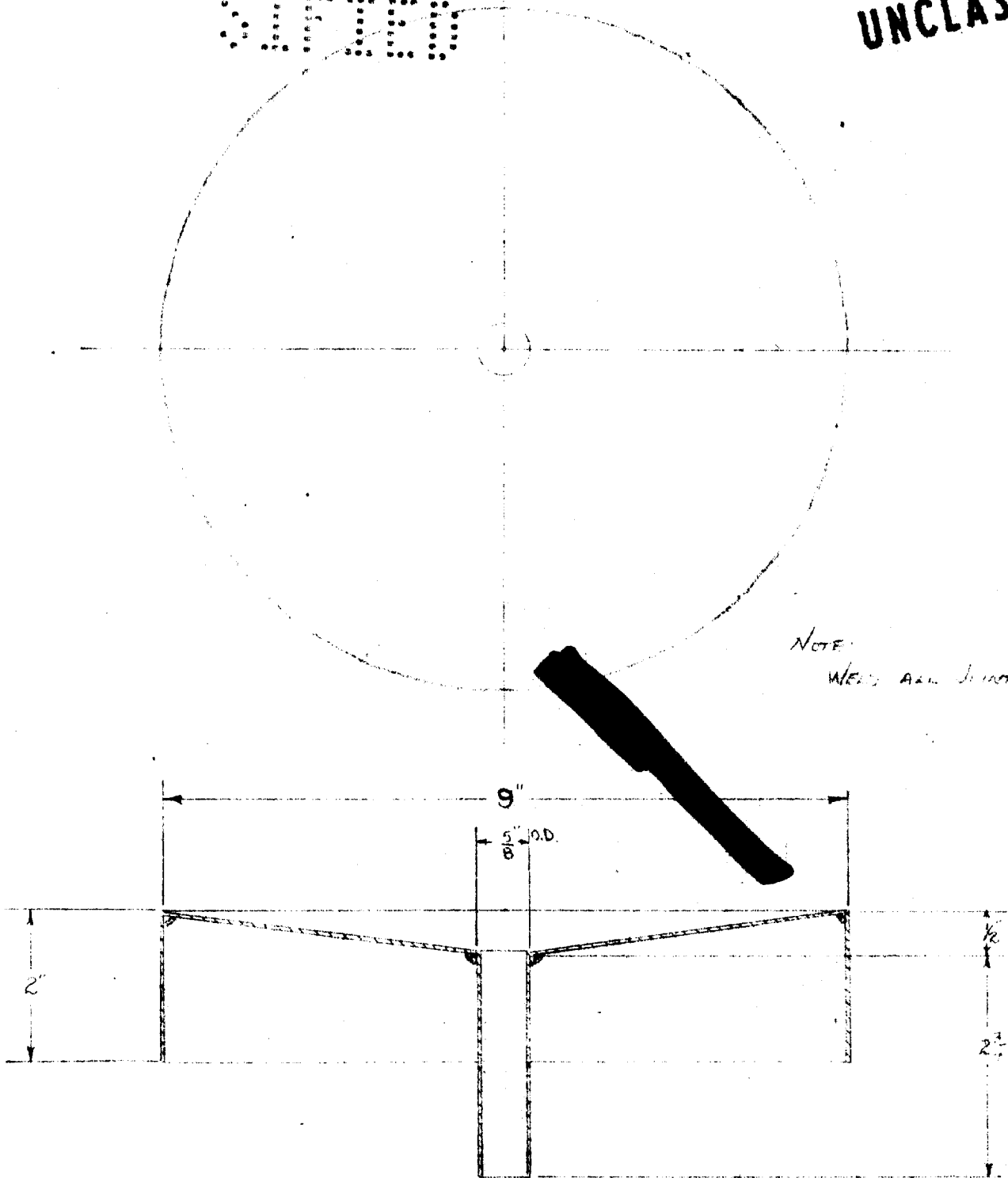
PART 4110-B

SCALE $\frac{1}{2}$ 120

F.C.T.

WELDED
SPLASH

UNCLASSIFIED



MAKE ONE
STAINLESS STEEL, 18 GA., 0.002"

ROUGH CUT
SPLASH CAP

WELDED
SPLASH

PART 4110-C

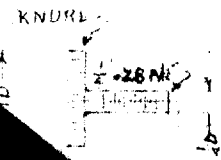
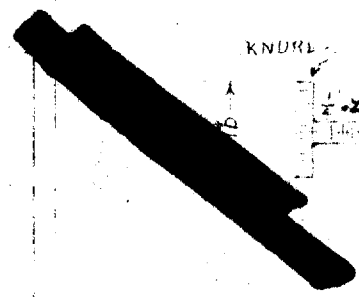
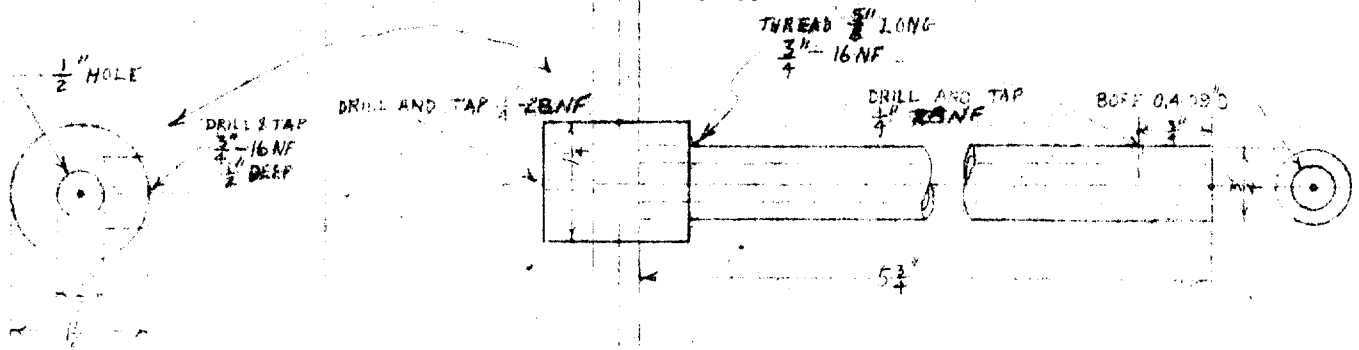
PAGE 105

UNCLASSIFIED

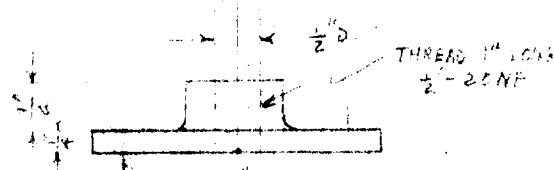
5/8/45 ECT

DECLASSIFIED

UNCLASSIFIED



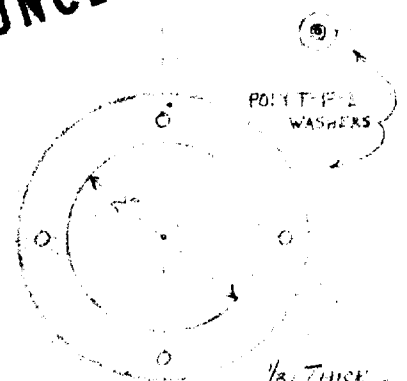
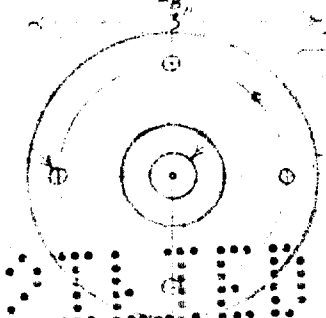
STAINLESS
STEEL



UNCLASSIFIED

4 $\frac{3}{16}$ HOLES

$\frac{1}{2}$ SIZE



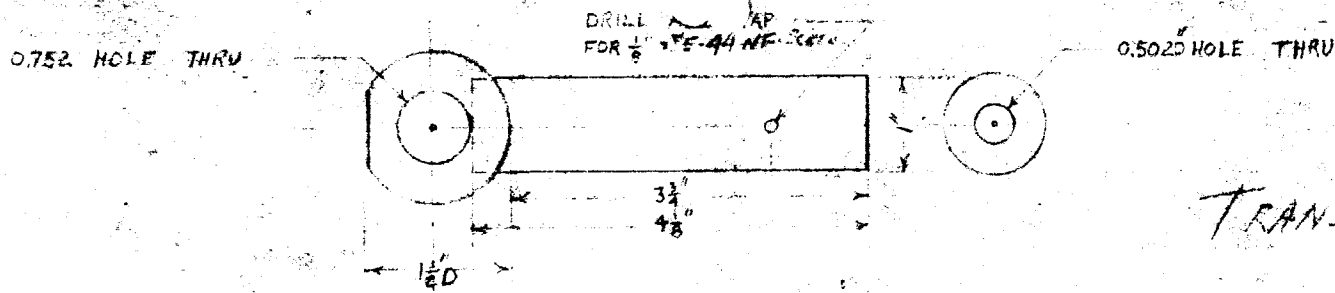
DECLASSIFIED

5-8-45

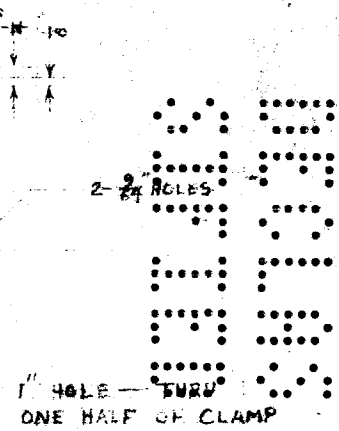
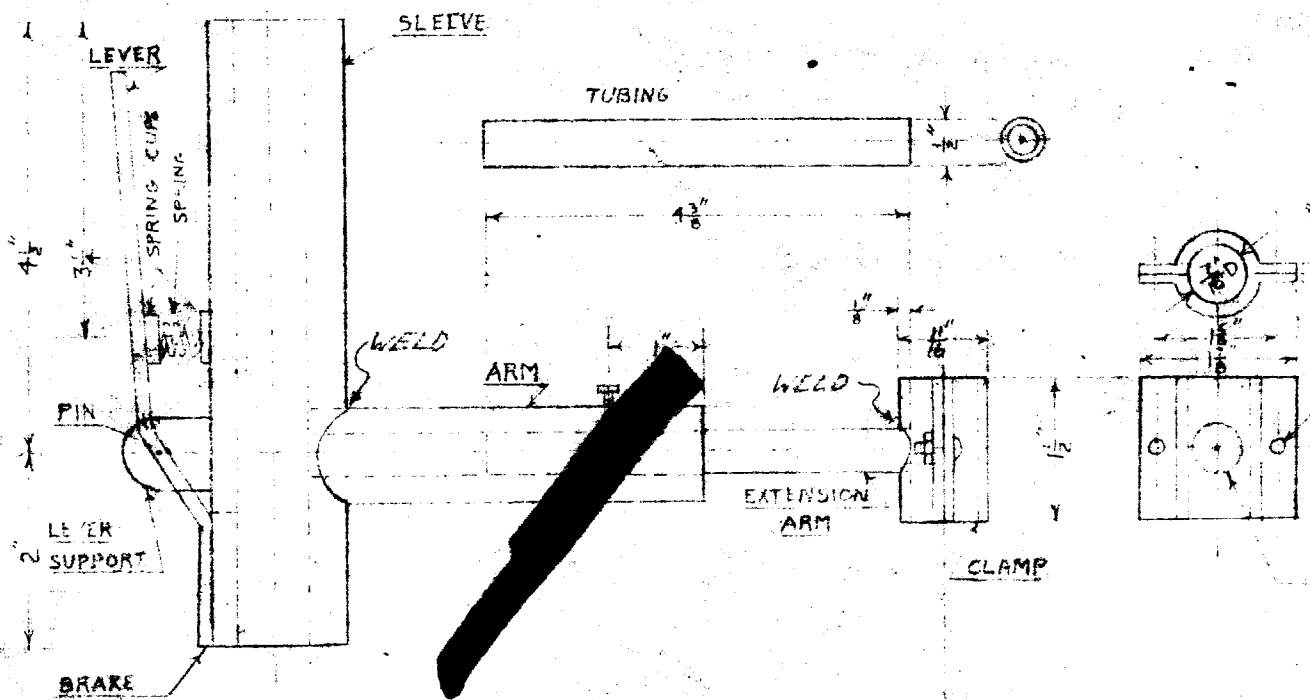
WJM

PAGE 106

STIRRER SUPPORT PART 4120

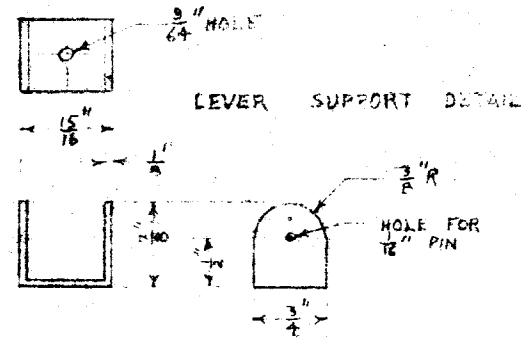
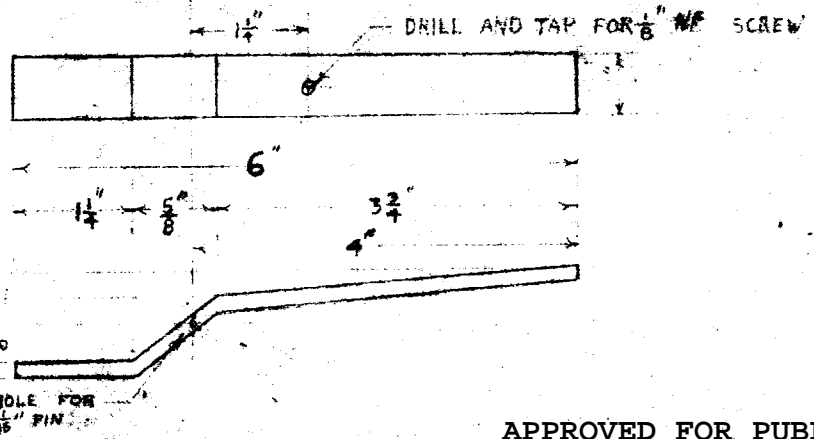


TRANSFER TUBE
SUPPORT



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LEVER DETAIL



UNCLASSIFIED

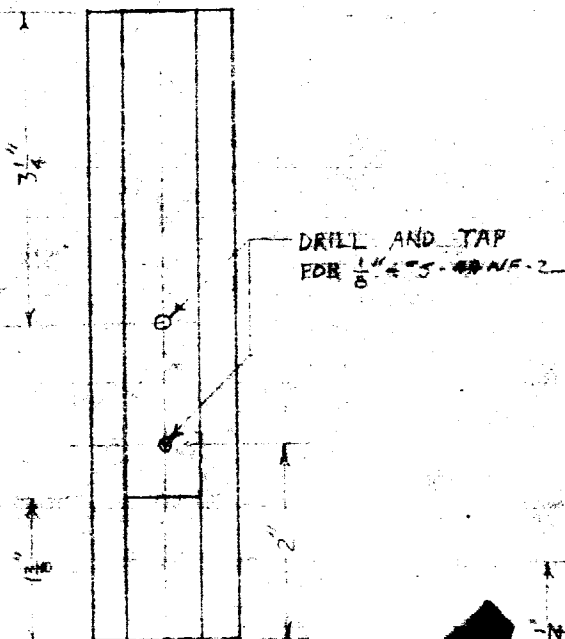
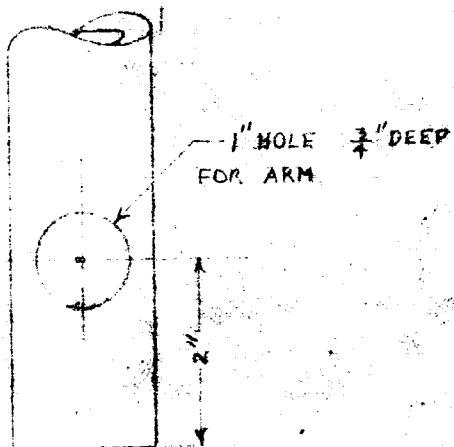
PART 41-20-A

ALL DURAL

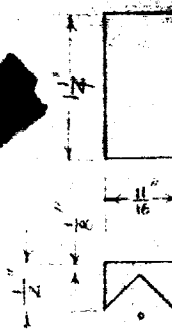
1/2 SIZE 5-5-45 WJM

PART 4120-A

SLEEVE DETAIL



BRACE DETAIL



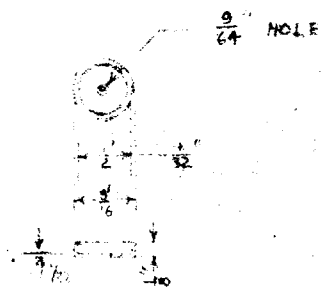
← NEOPRENE BLOCK TO BE CEMENTED TO LEVER END

MILL END LENGTH



PAGE 108

SPRING CAP DETAIL (2 REQ'D)



UNCLASSIFIED

UNCLASSIFIED

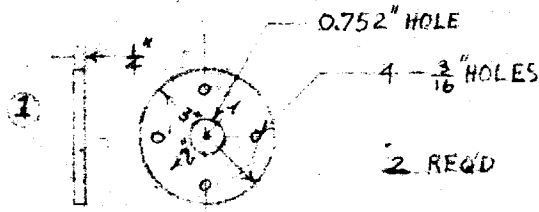
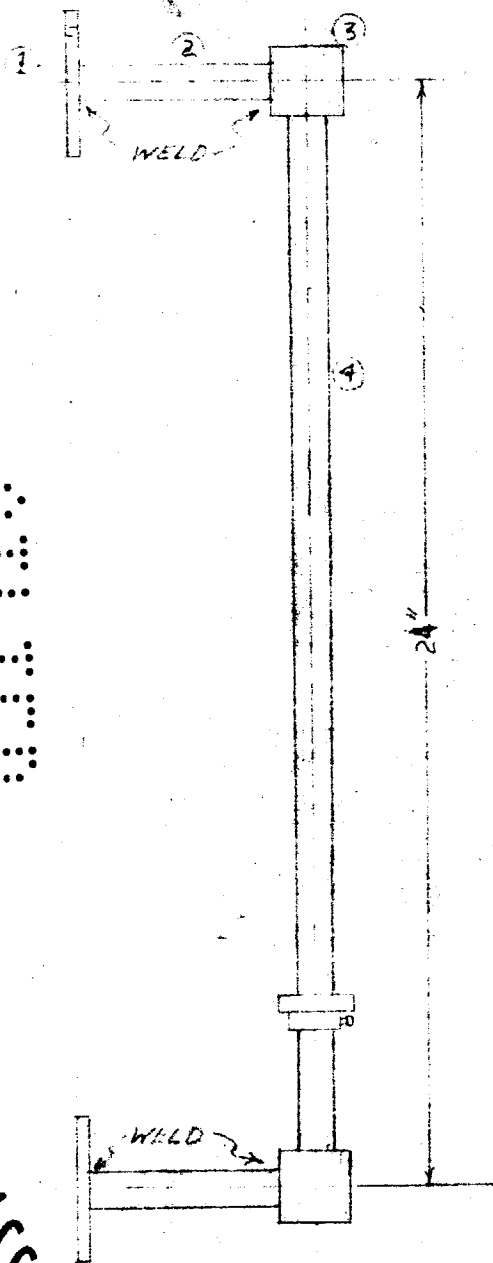
$\frac{1}{2}$ SIZE

DUAL

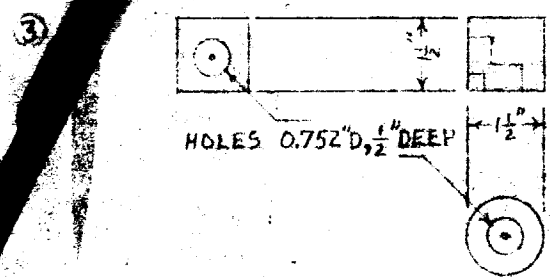
WALL SUPPORT

PART 4130

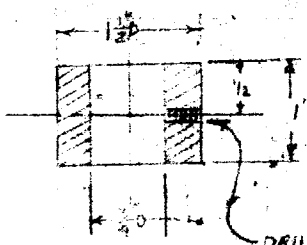
DETAILS



② ROD 0.750" D 4" LONG
2 REQ'D



④ ROD 0.750" D 23 1/2" LONG



STAINLESS STEEL

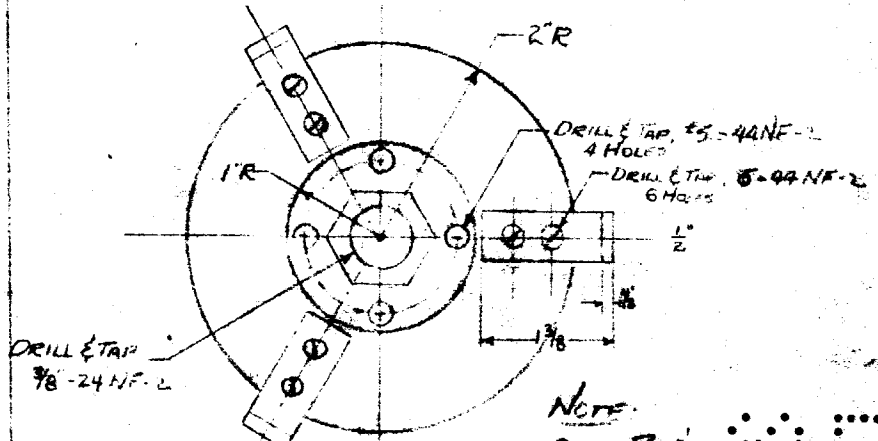
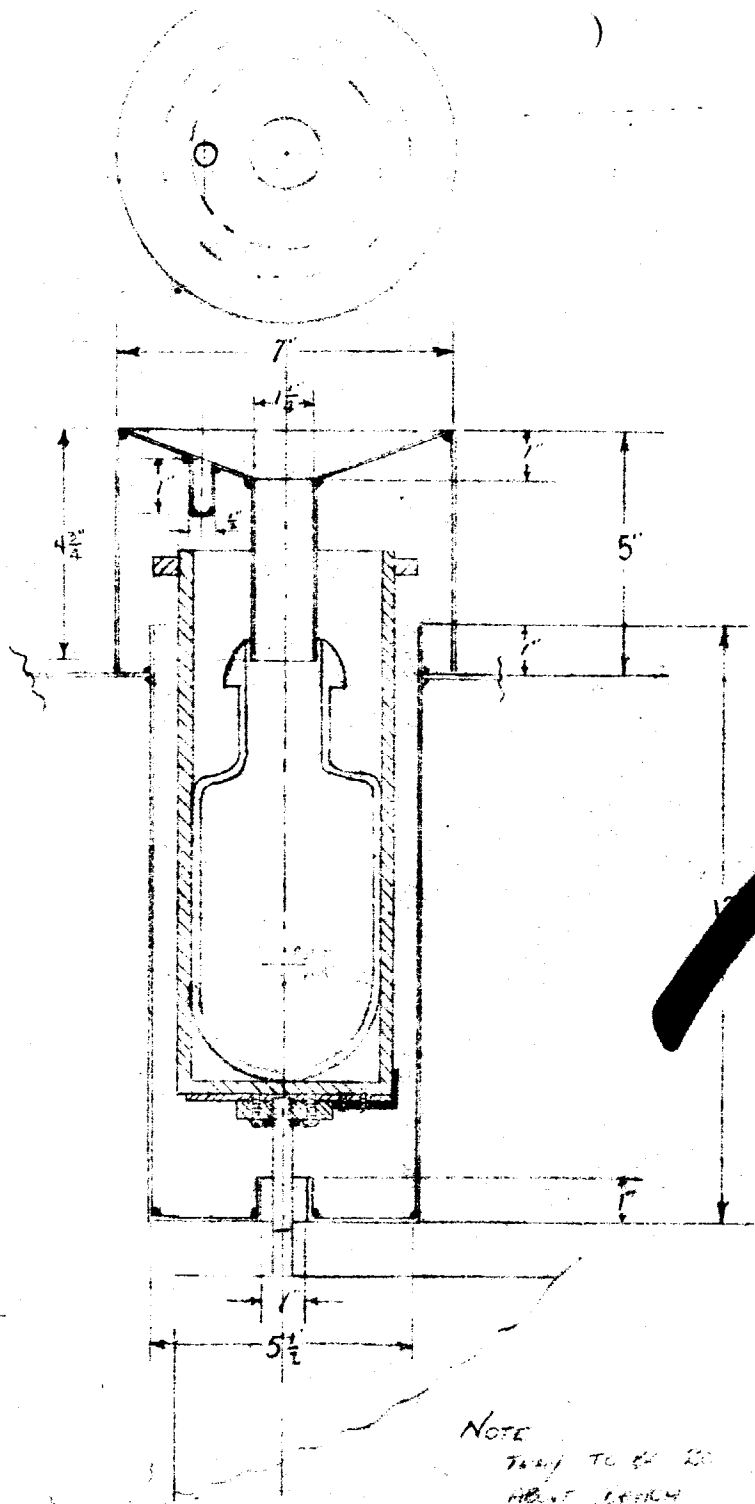
1/4" SIZE 5-5-45 WUM

PAGE 109

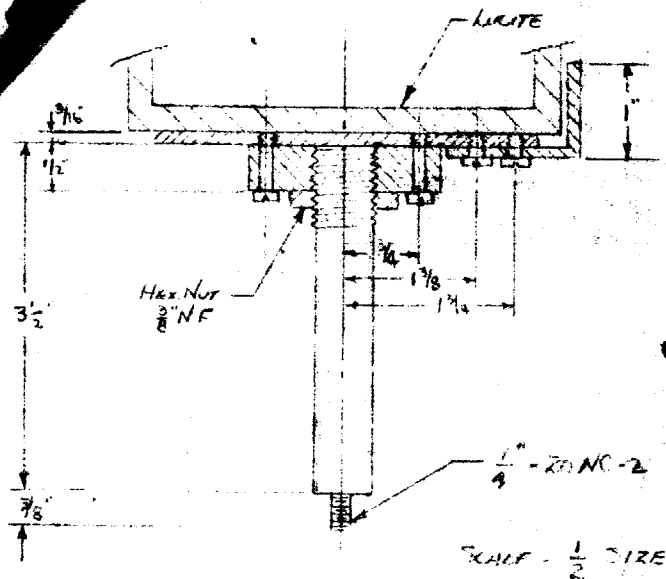
UNCLASSIFIED

UNCLASSIFIED

ROUGH CUT APPARATUS
STORAGE BOTTLE HOLDER
PART 4140



NOTE:
ONE REDD
ALL PARTS DURAL
UNLESS OTHERWISE NOTED



SCALE - 1/2 SIZE

PAGE 110

UNCLASSIFIED

SCALE - 1/2

NOTE
TAP TO BE 20
POINT SYSTEM

UNCLASSIFIED

51145 FC 11/12

UNCLASSIFIED

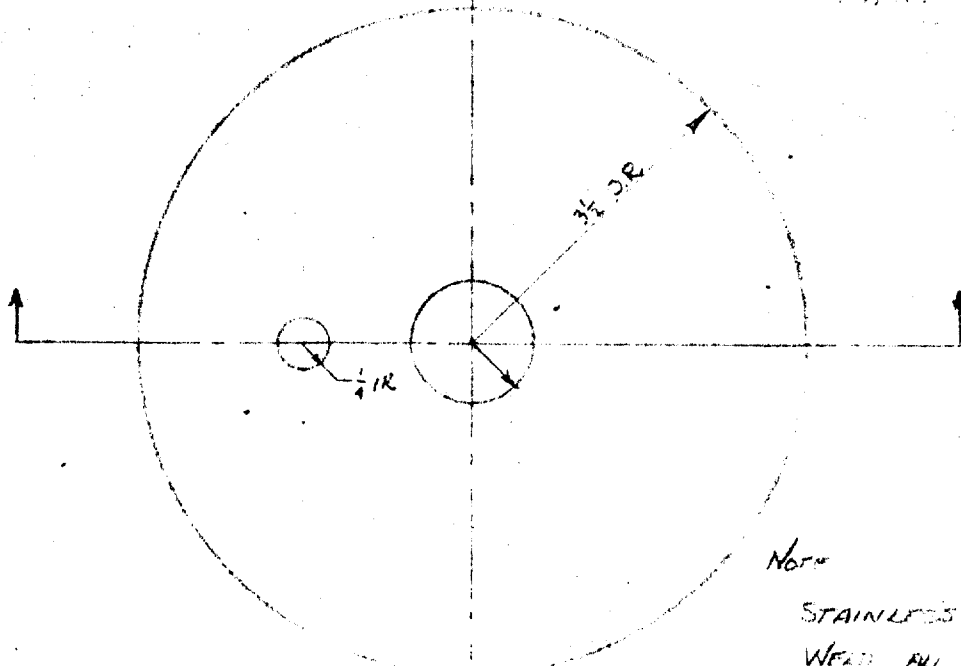
DEVELOP

STITCH

SPLASH CAP FOR STORAGE BOTTLE

ROUGH CUT

PART 4140-A

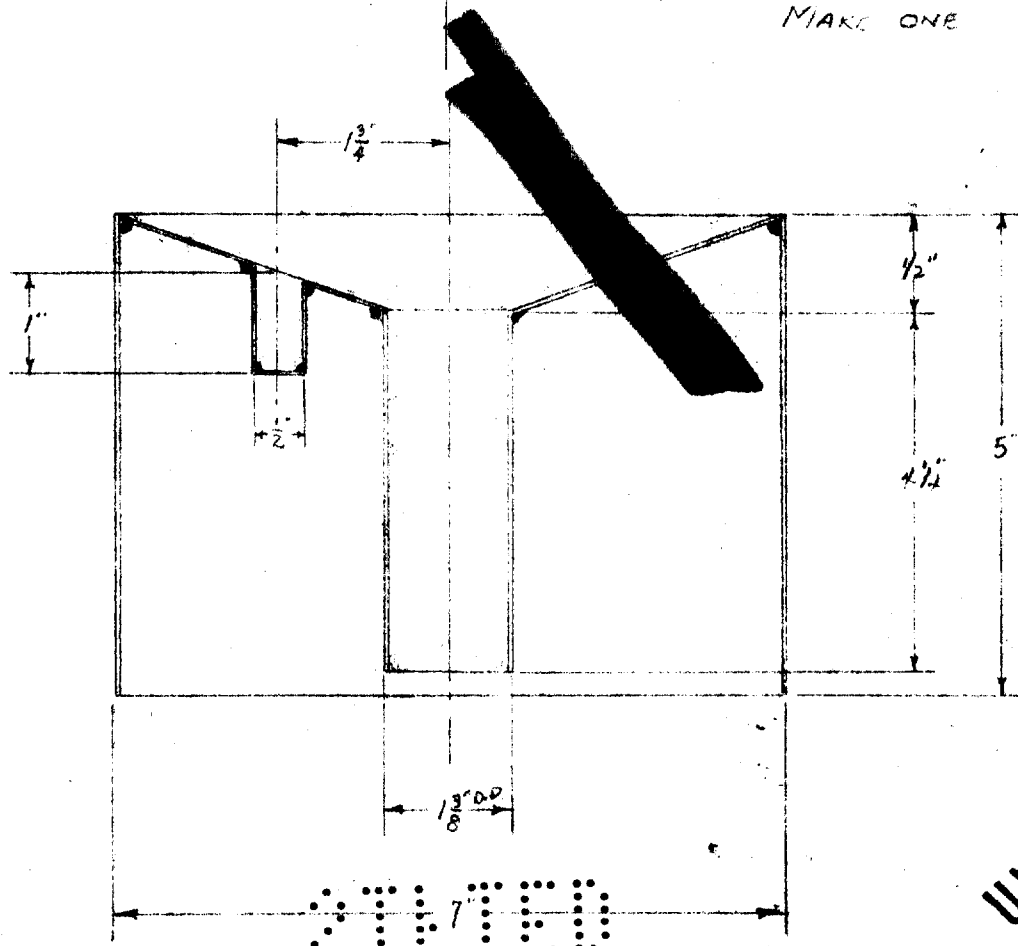


Note

STAINLESS STEEL, 18/8 TYPE, 304

WELD ALL JOINTS

MAKE ONE



DEVELOP

STITCH

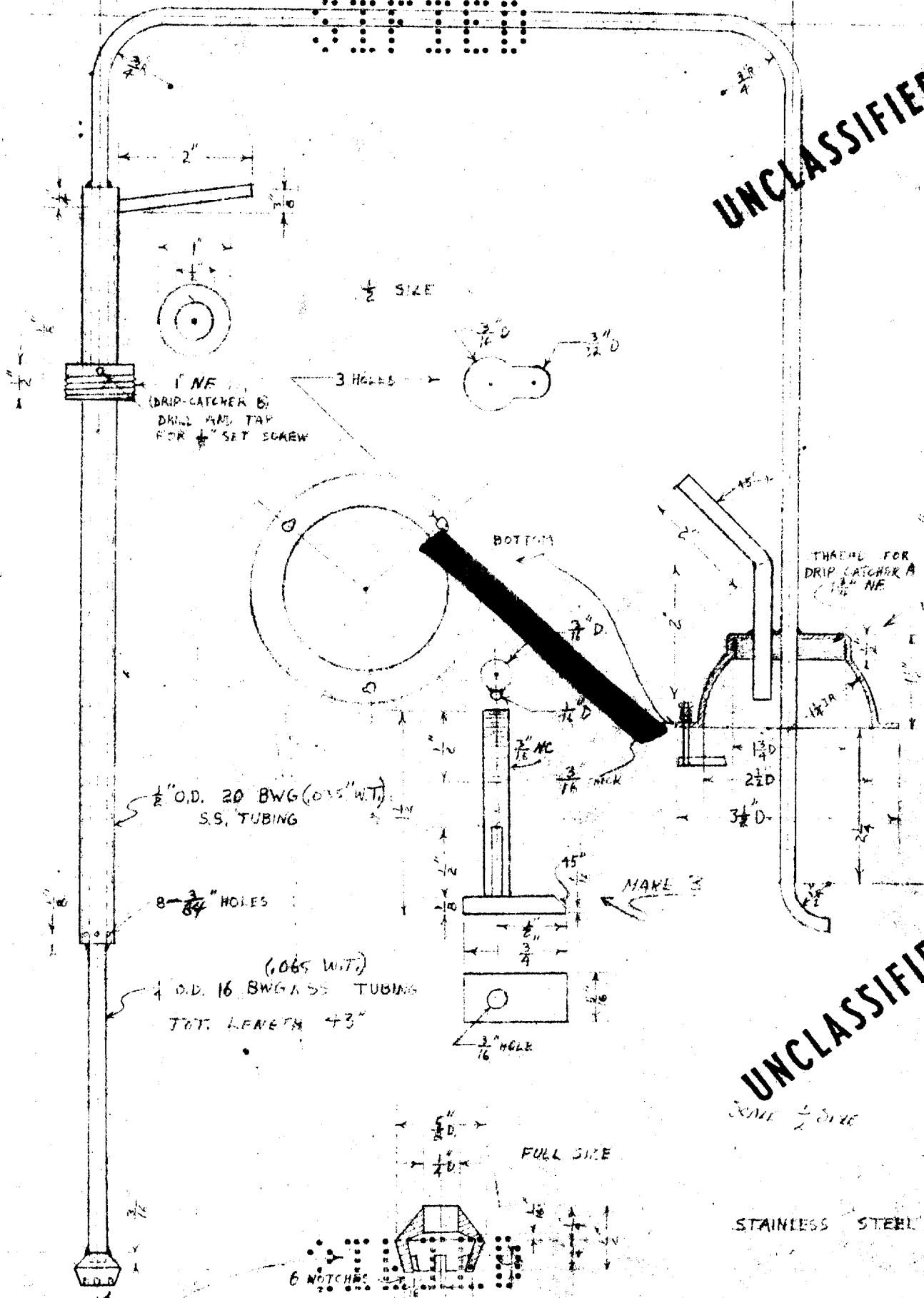
Scale 1/2
5/5/45 F.C. Taylor

UNCLASSIFIED

TRANSFER APPAR.

PART 4150

UNCLASSIFIED



DRIP-CATCHER B
DRILL AND TAP
FOR 1/4\" SET SCREW

THREAD FOR
DRIP-CATCHER A
1/2\" NF

1/2\" O.D. 20 BWG (0.05\" W.T.)
S.S. TUBING

8 - 3/8\" HOLES

(0.05 W.T.)
1\" O.D. 16 BWG S.S. TUBING
TOT. LENGTH 43\"



UNCLASSIFIED

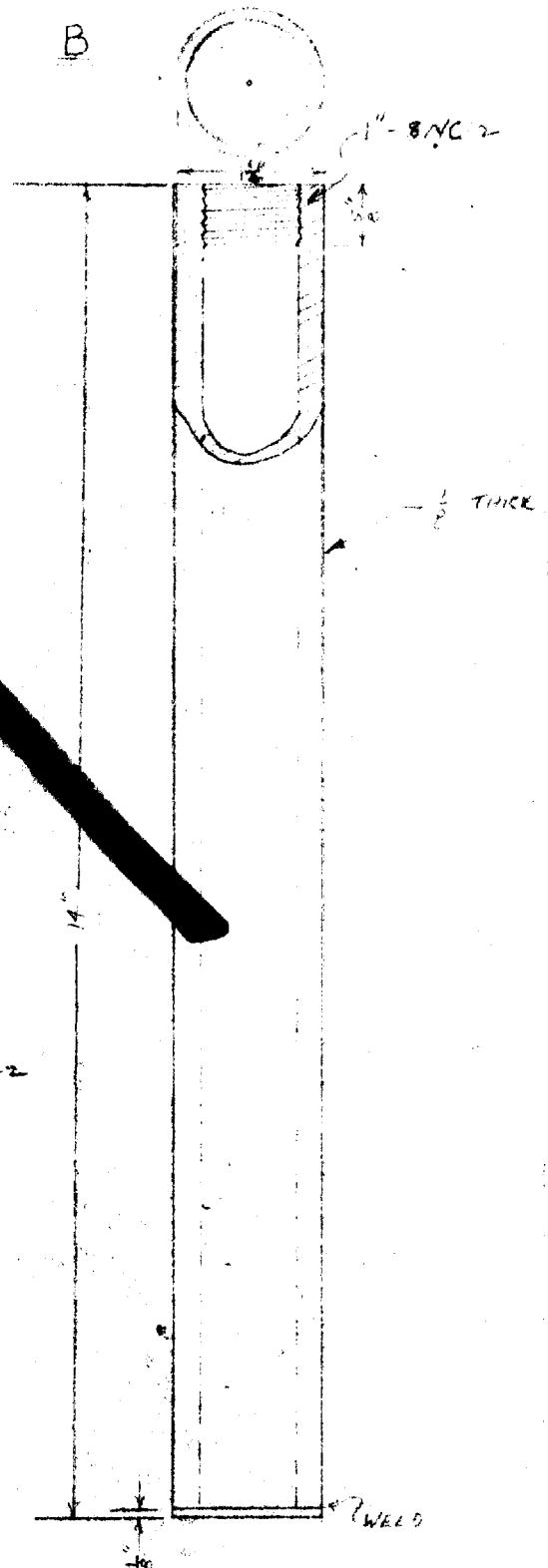
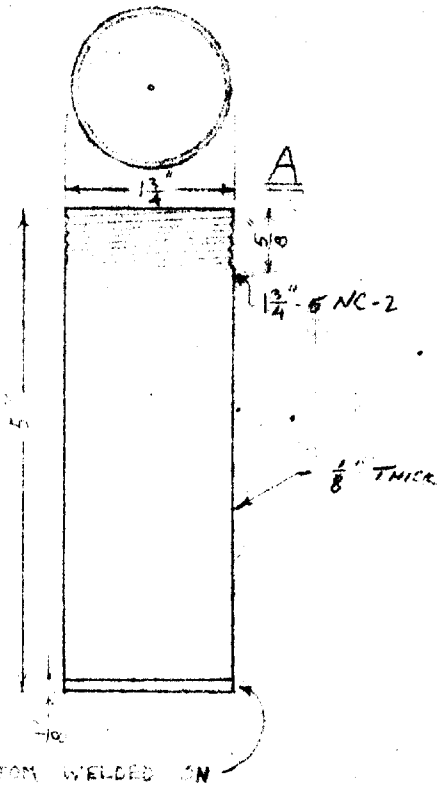
SCALE 1/2\" SIZE

STAINLESS STEEL

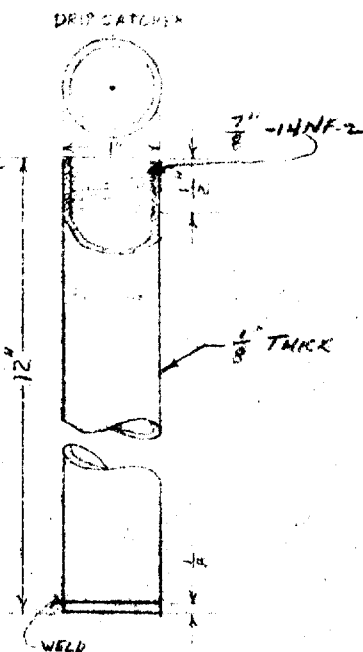
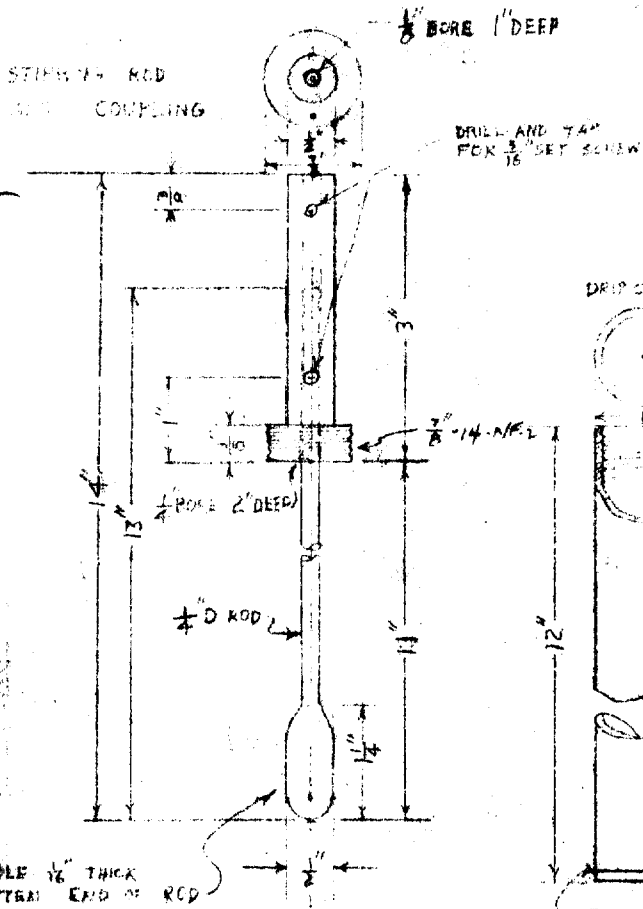
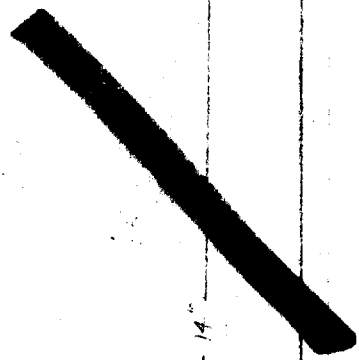


DRIP CATCHERS
PART 4160

UNCLASSIFIED



NOTE
ALL PARTS
STAINLESS STEEL



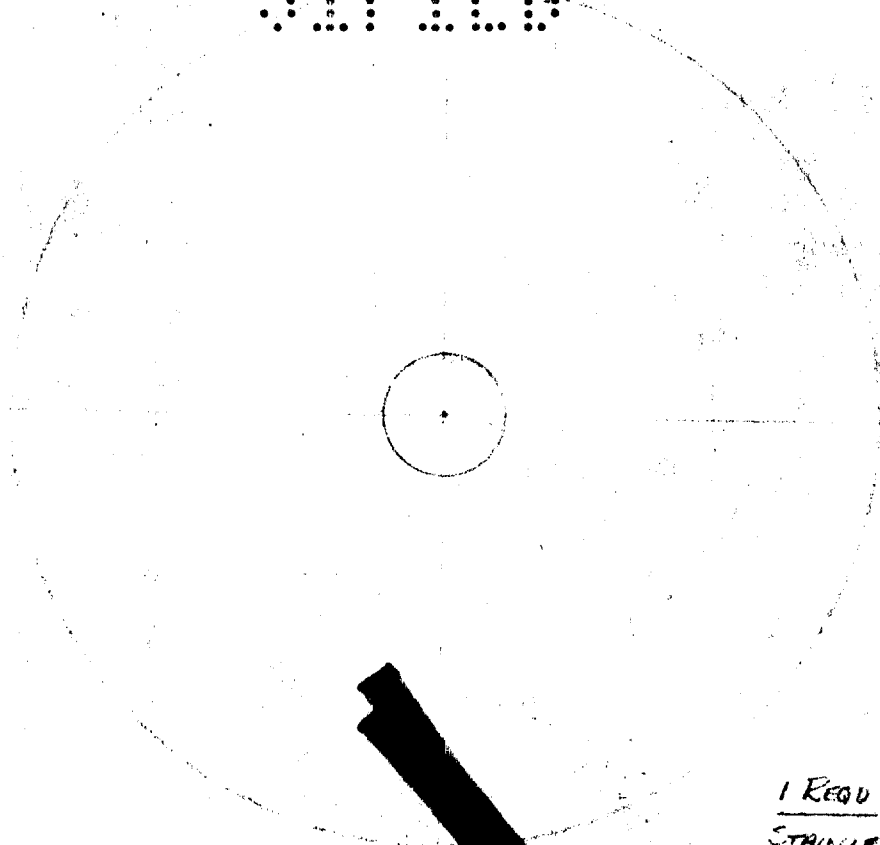
5-8-45 WDM

DRIP CATCHERS

UNCLASSIFIED

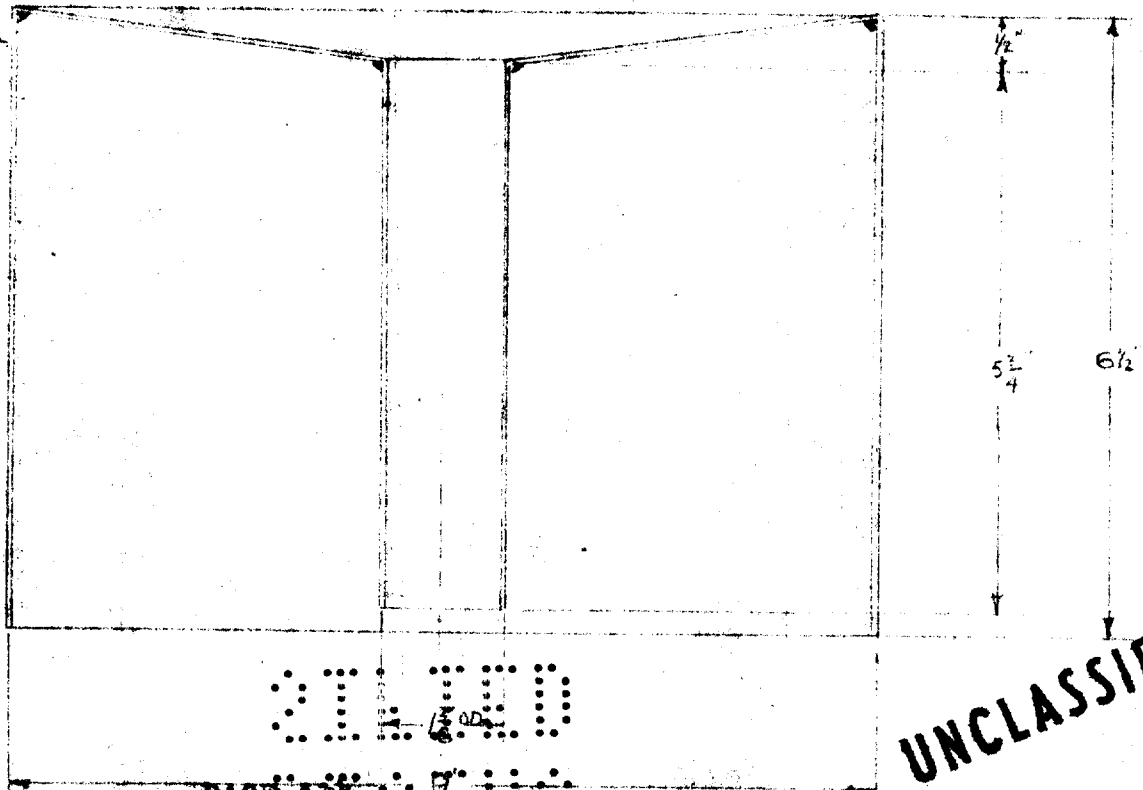
DECLASSIFIED

UNCLASSIFIED



SPLASH GUARD - R BOTTLE
PART 4170

1 REQD
STAINLESS STEEL, 18Ga, .0500"
WELD ALL JOINTS

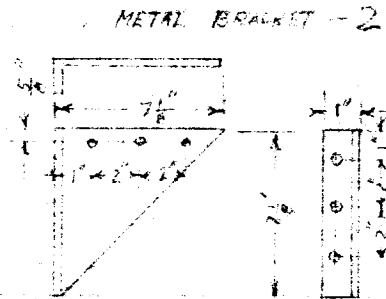
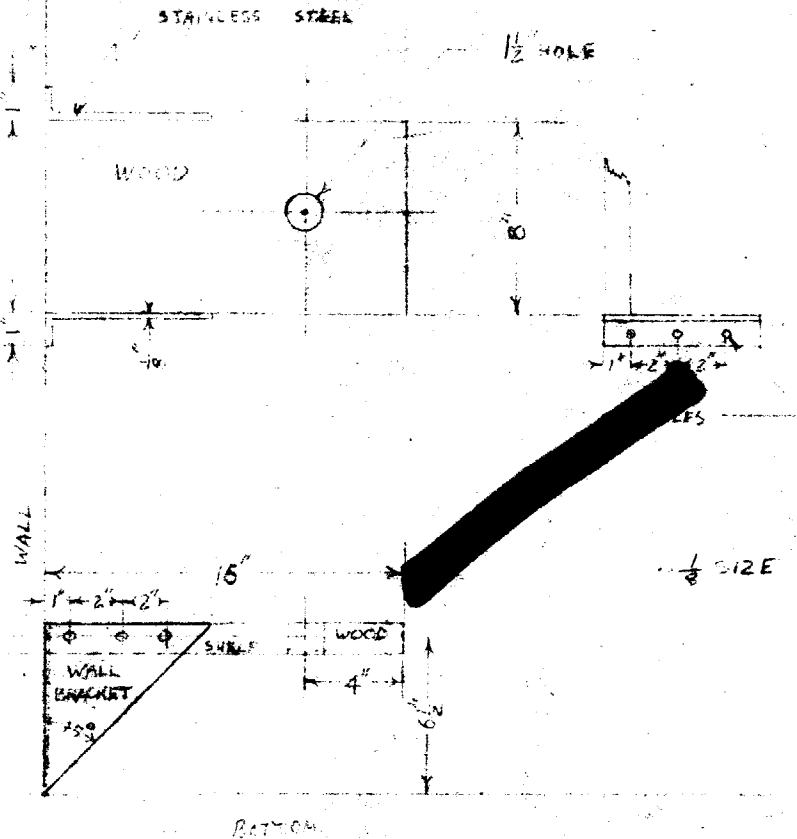


DECLASSIFIED

UNCLASSIFIED

5/14/84 F.C.

ROUGH CUT - BOMB HOLDER SUPPORT
PART 4180



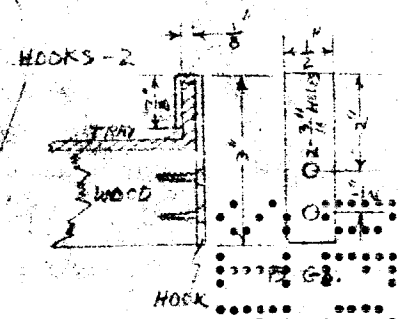
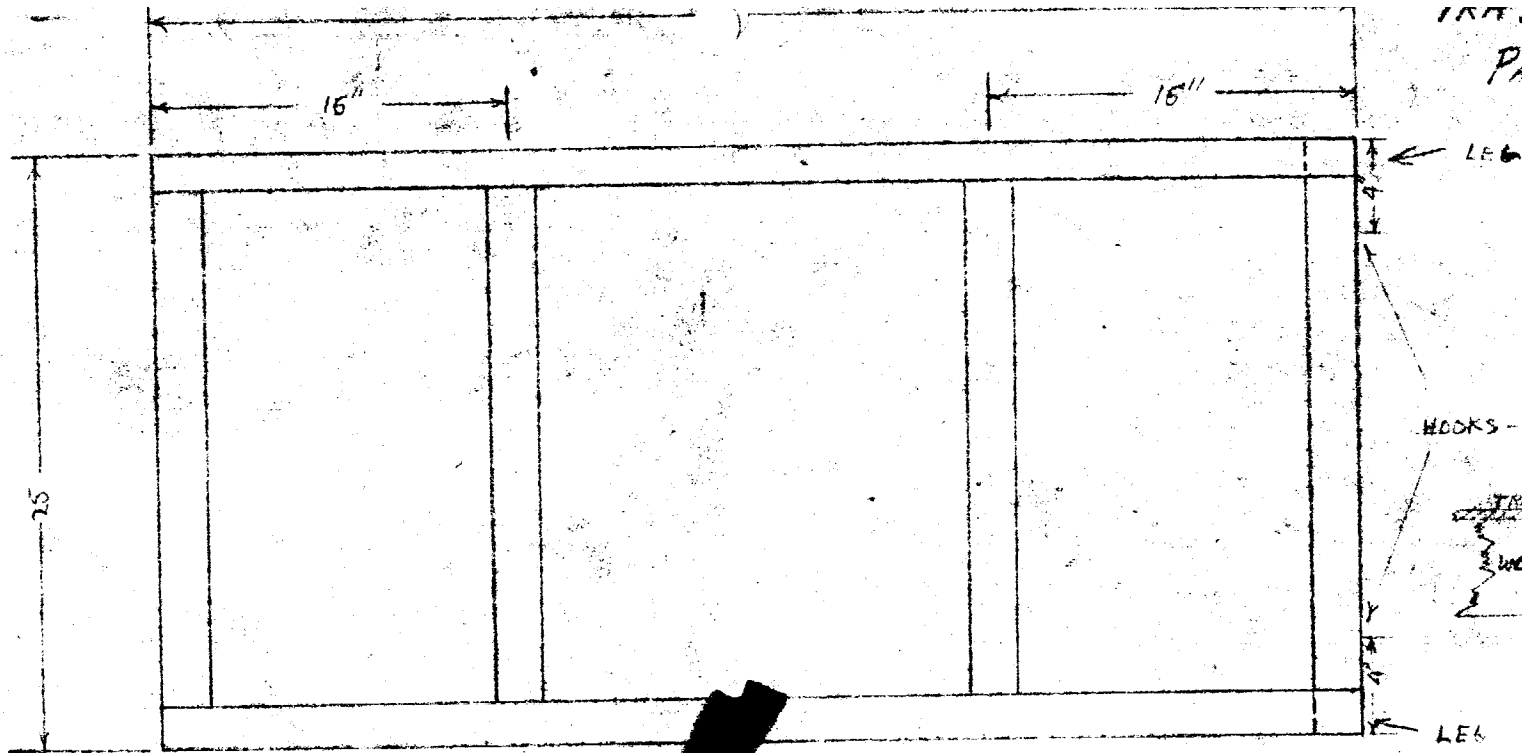
PAGE 115

UNCLASSIFIED

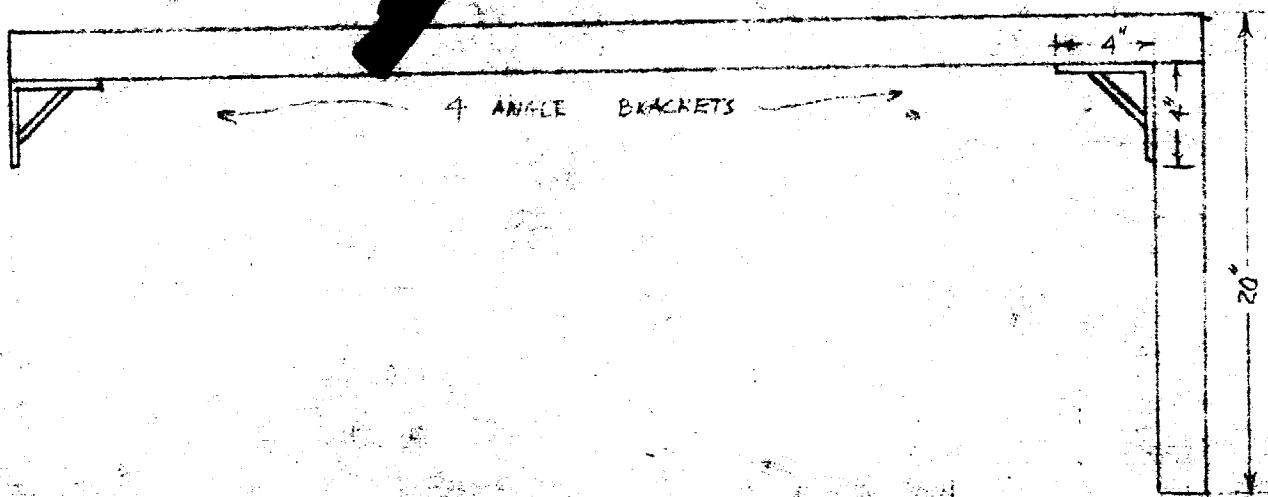
SECRET

UNCLASSIFIED

PART 4190



ALL WOOD MEMBERS ^{5/8"} 2" UNLESS OTHERWISE NOTED



2 LEGS ONLY

1/8" SIZE

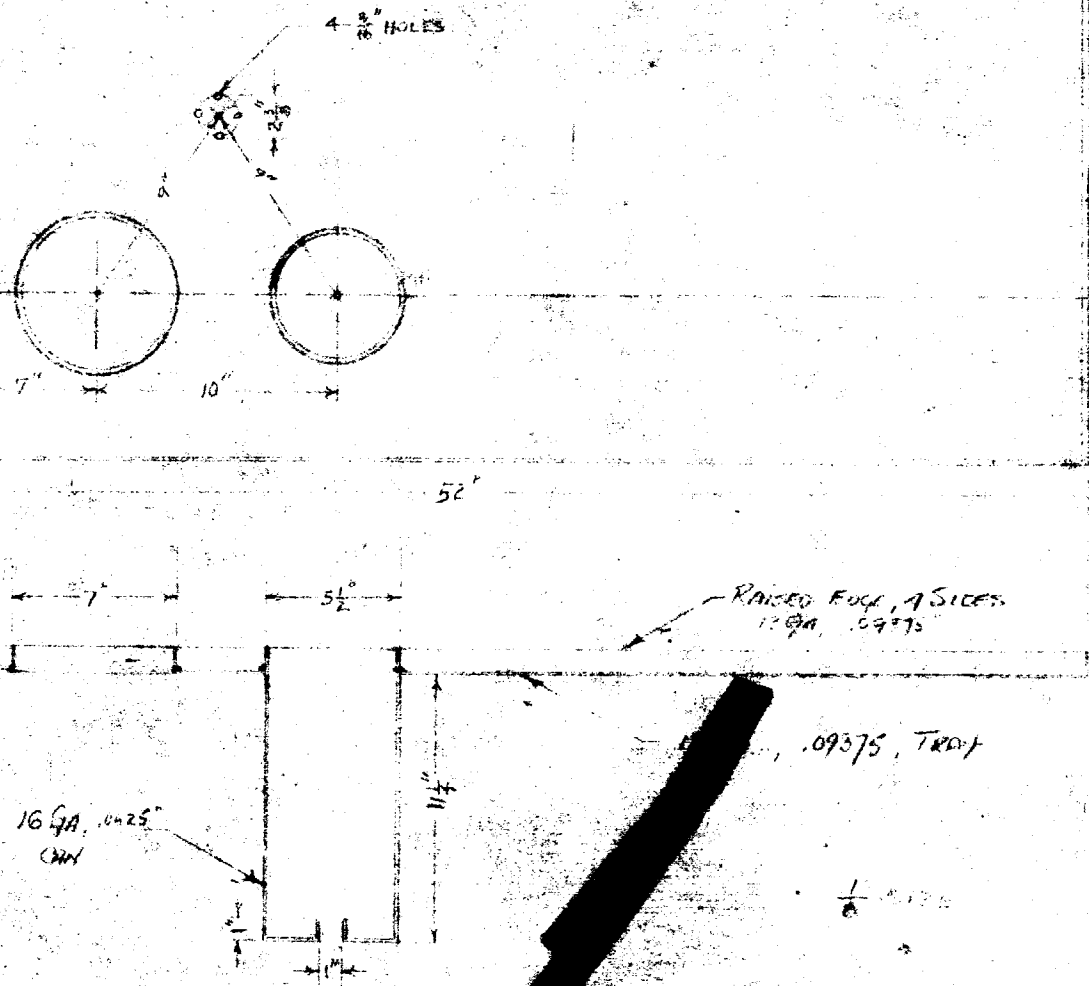
PAGE 116

UNCLASSIFIED

UNCLASSIFIED

PART 4190-A
TRAY

REF ID: A66117

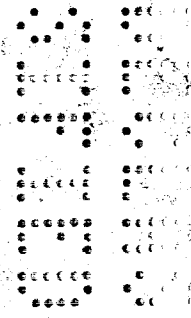


RAISED EDGE, ALL SIDES
1/8" GA. .0475"

.09375, TRAY

16 GA. .0425"
CWI

ALL PARTS STAINLESS STEEL



UNCLASSIFIED

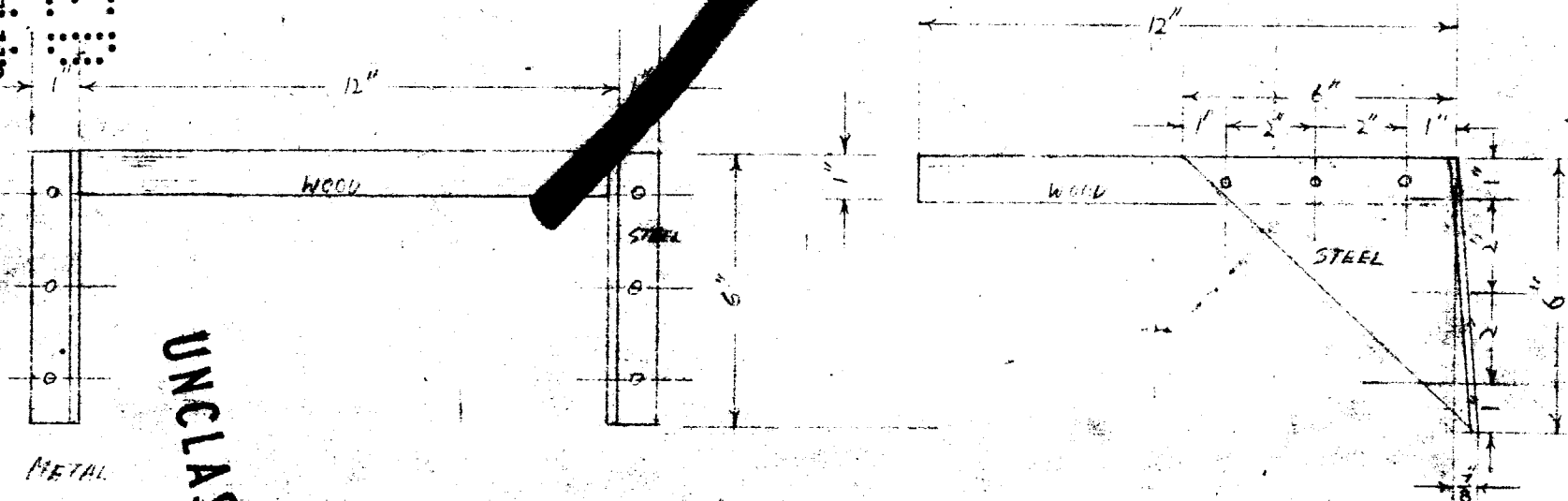
UNCLASSIFIED

5-9-45

NITRIC ACID BOTTLE HOLDER
PART 4210

PAGE 118

SECRET

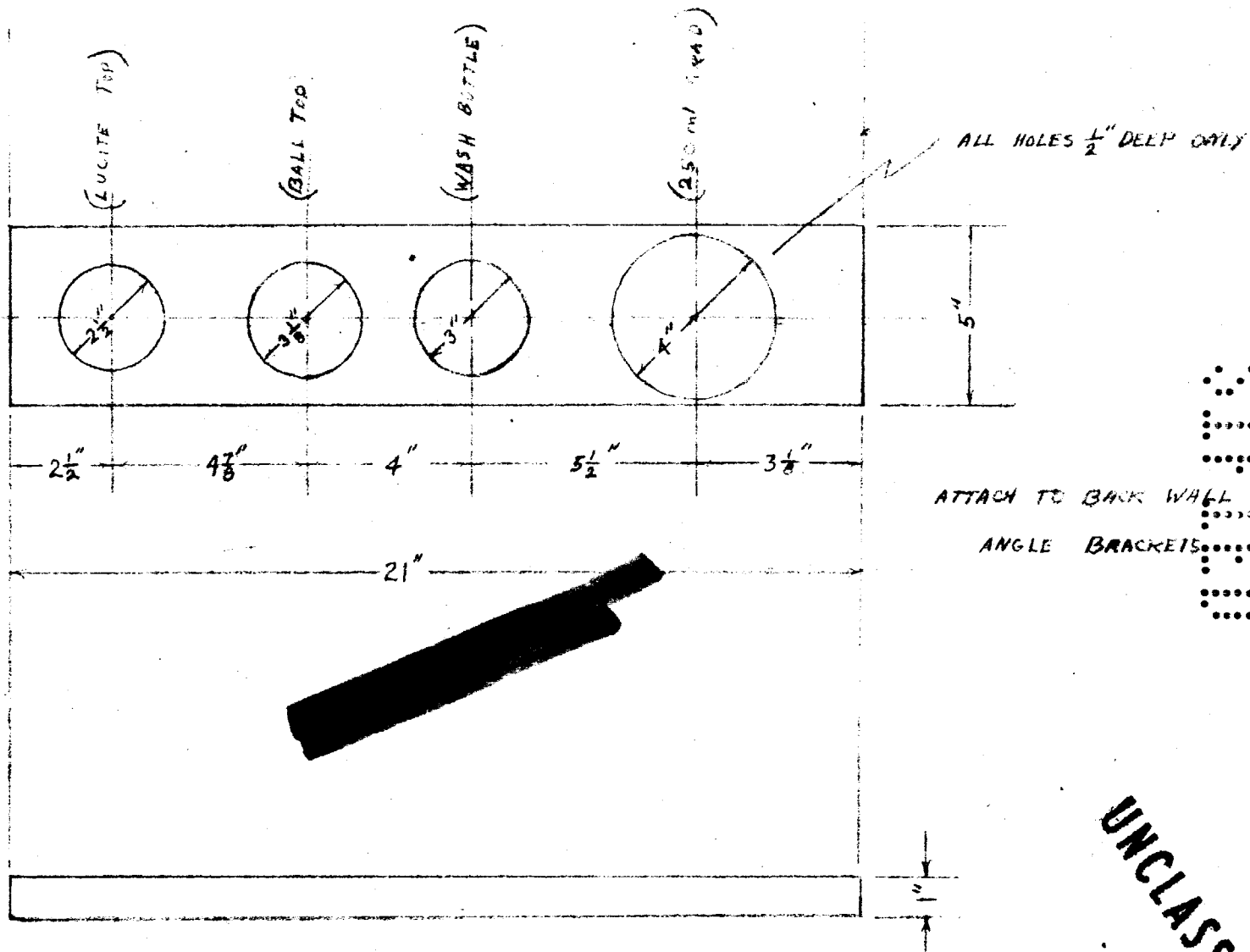


UNCLASSIFIED

UNCLASSIFIED

WALL RACK - MISC.)

PART 4220



PAGE 119

SECRET

UNCLASSIFIED

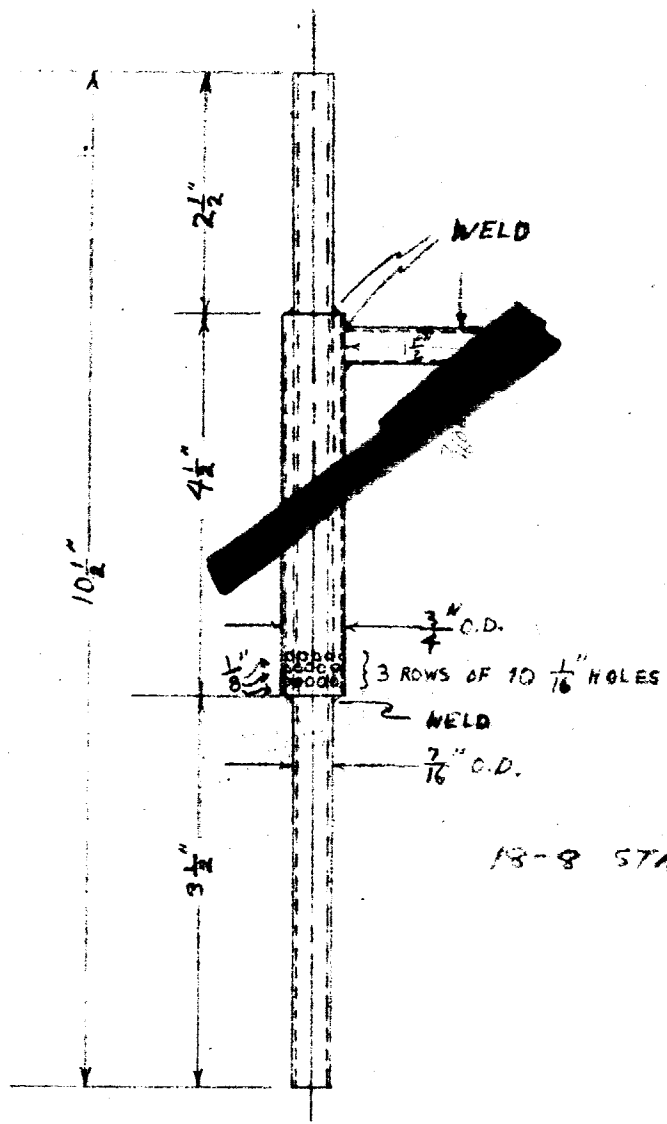
Wall Rack—Misc.

Part 4220

$\frac{1}{4}$ SIZE
5-16-45 WJM

UNCLASSIFIED

BOMB DRIER INSERT
PART 4230



18-8 STAINLESS STEEL 20 BWG (0.036")

1/2" SIZE

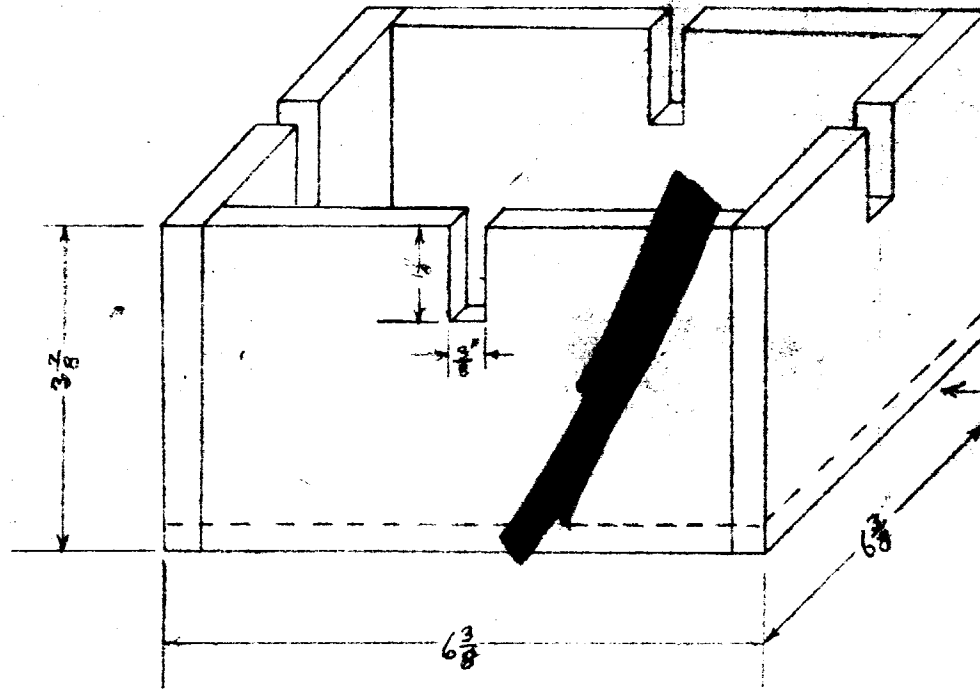
PAGE 120

UNCLASSIFIED

UNCLASSIFIED

BOMB HOLDER

PART 4240



MAKE BOTTOM

1/2 SIZE

INSIDE DIMENSIONS $5 \frac{5}{8} \times 5 \frac{5}{8} \times 3 \frac{1}{2}$

$\frac{3}{8}$ " PLYWOOD

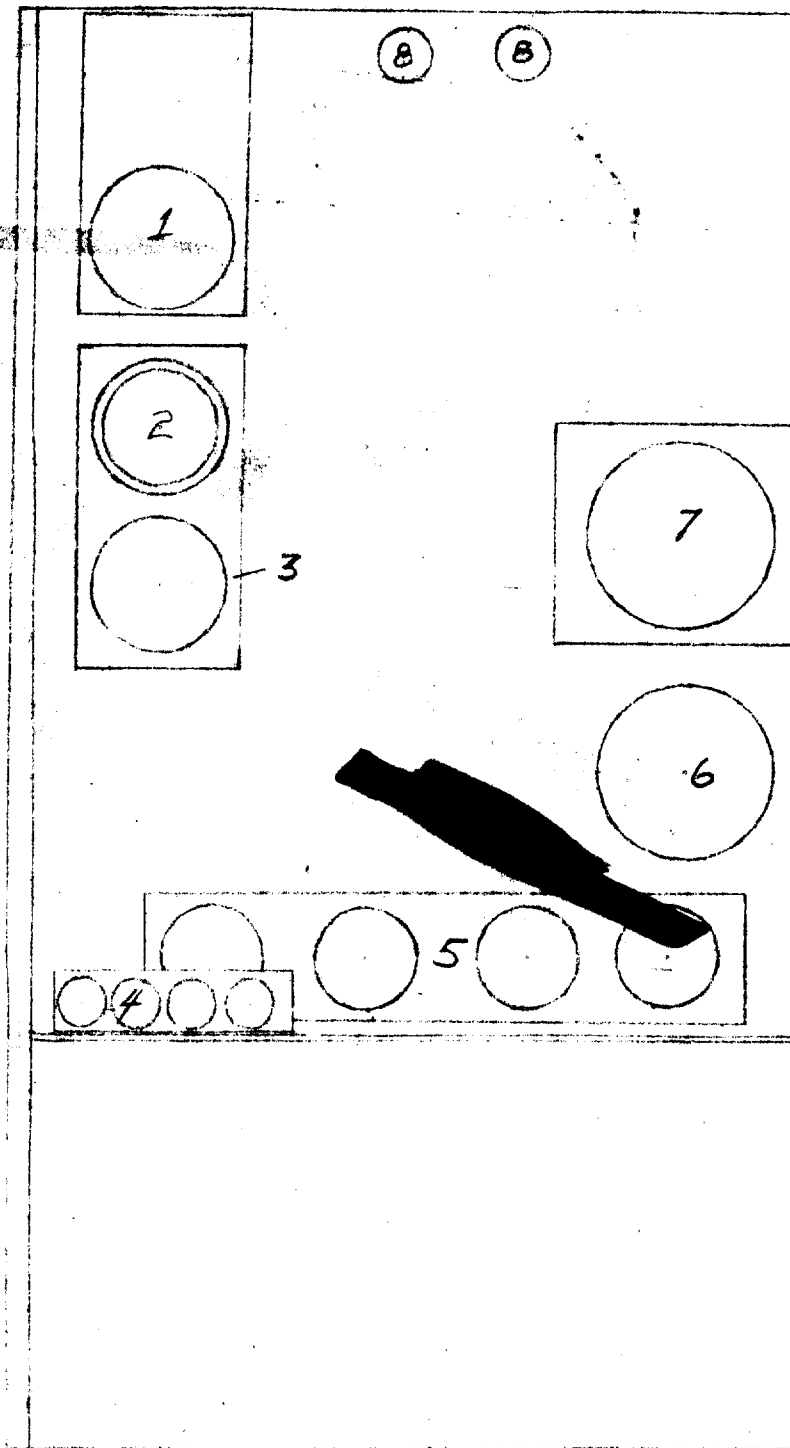
UNCLASSIFIED

UNCLASSIFIED

ROUGH CUT HOOD

UNCLASSIFIED

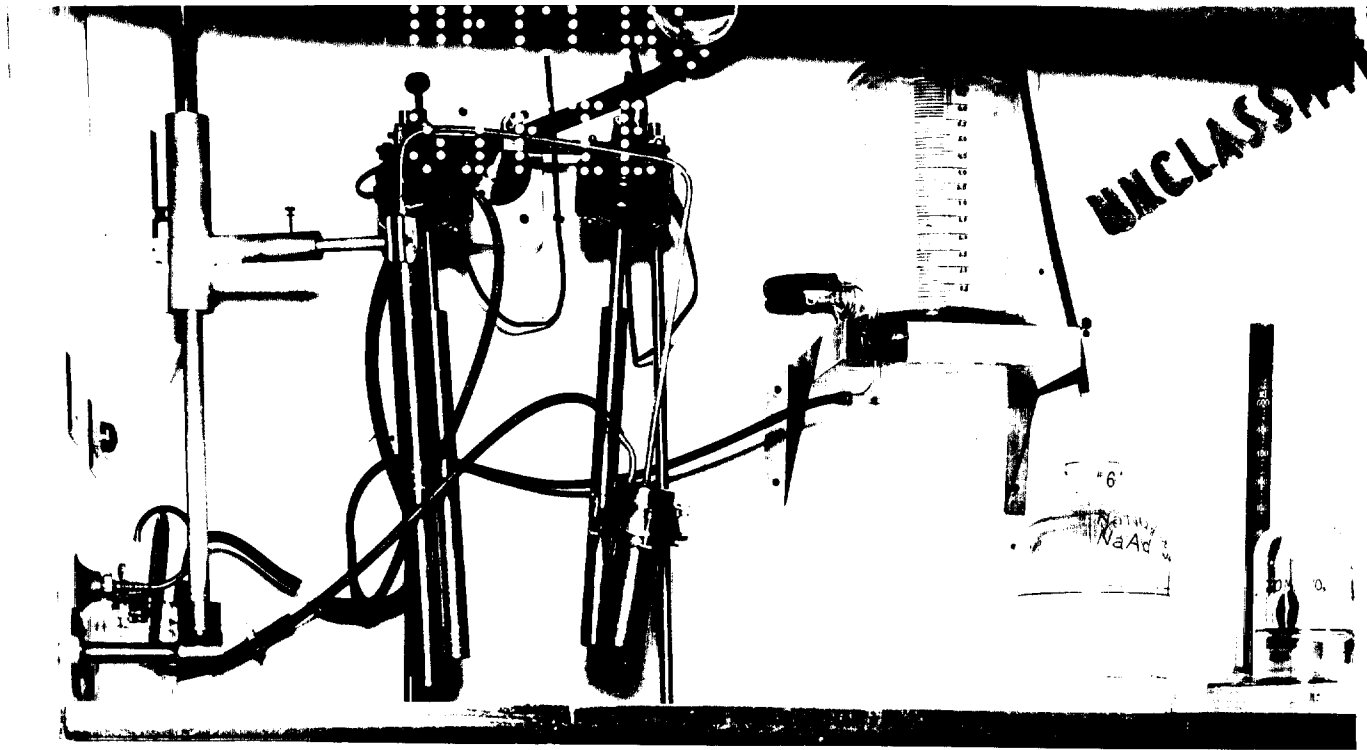
PLACEMENT OF EQUIPMENT



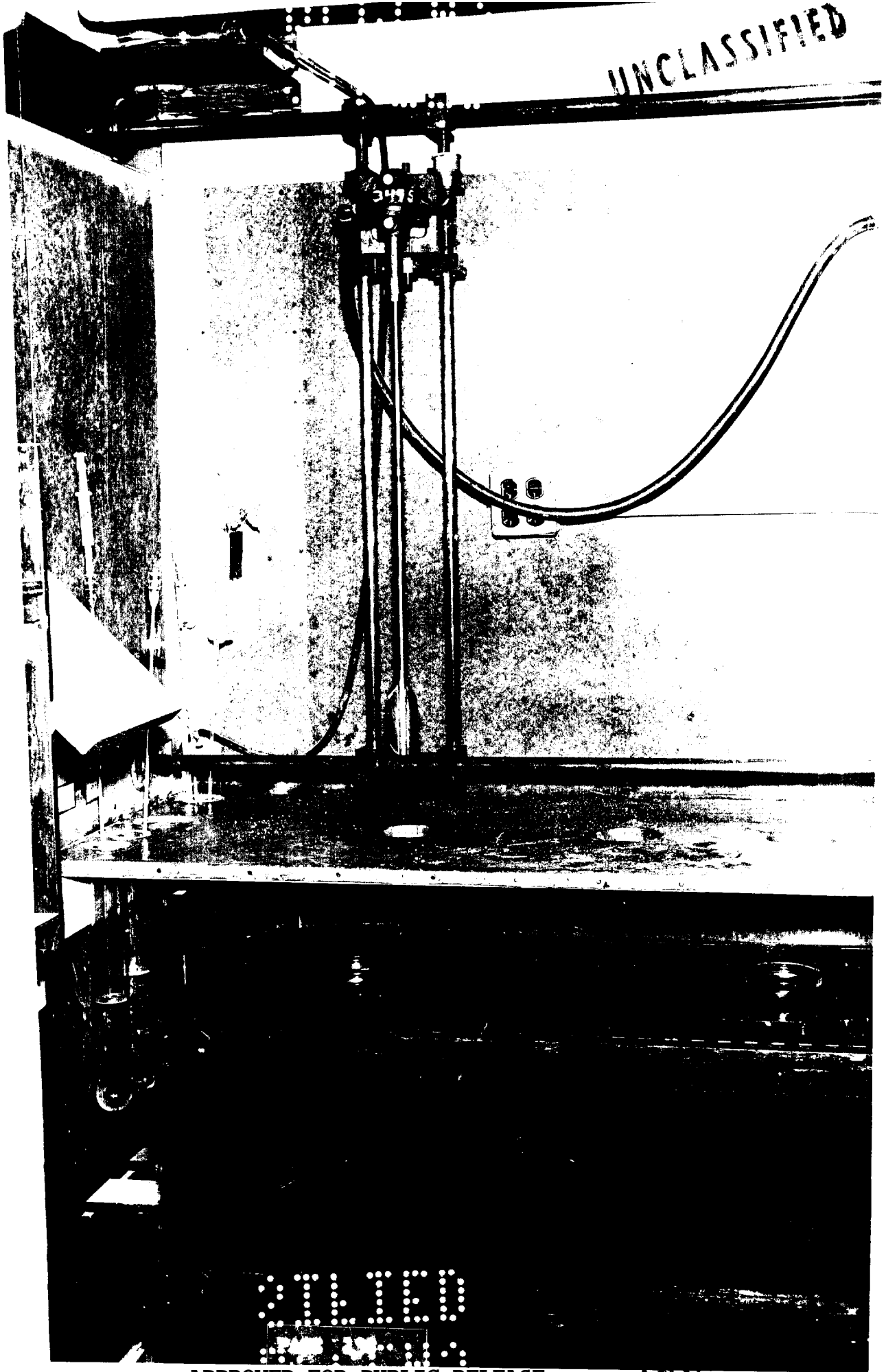
- 1. Bomb Holder and Rack
- 2. Transfer Can Holder
- 3. Pan Balance
- 4. Graduate Rack
- 5. Bottle Rack
- 6. Wash Bottle
- 7. Nitric Acid Bottle
- 8. Welff Bottles

•••••

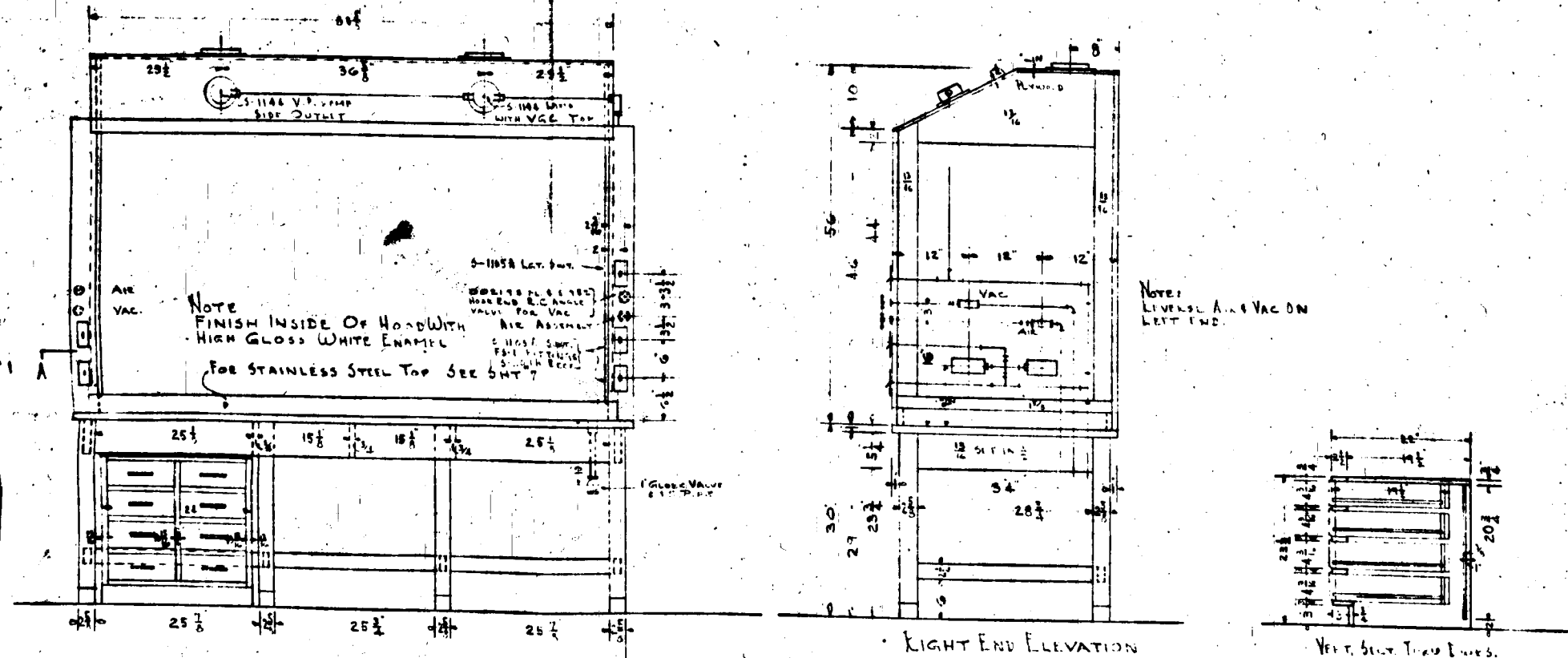
UNCLASSIFIED



UNCLASSIFIED



1116



ITEM ② ONE TYPE F. C FUME HOOD AS SHOWN CONTAINS 8 BOX DWRS CLR 9 1/16" X 3 1/2" H X 18" DP.

NOTE: FOR VERTICAL & HORIZONTAL SECTIONS & PLUMBING LAYOUT SEE DMT. 1

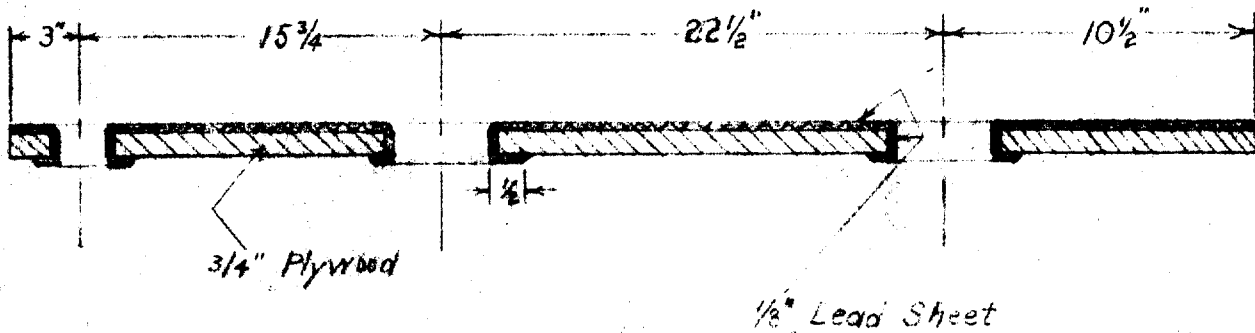
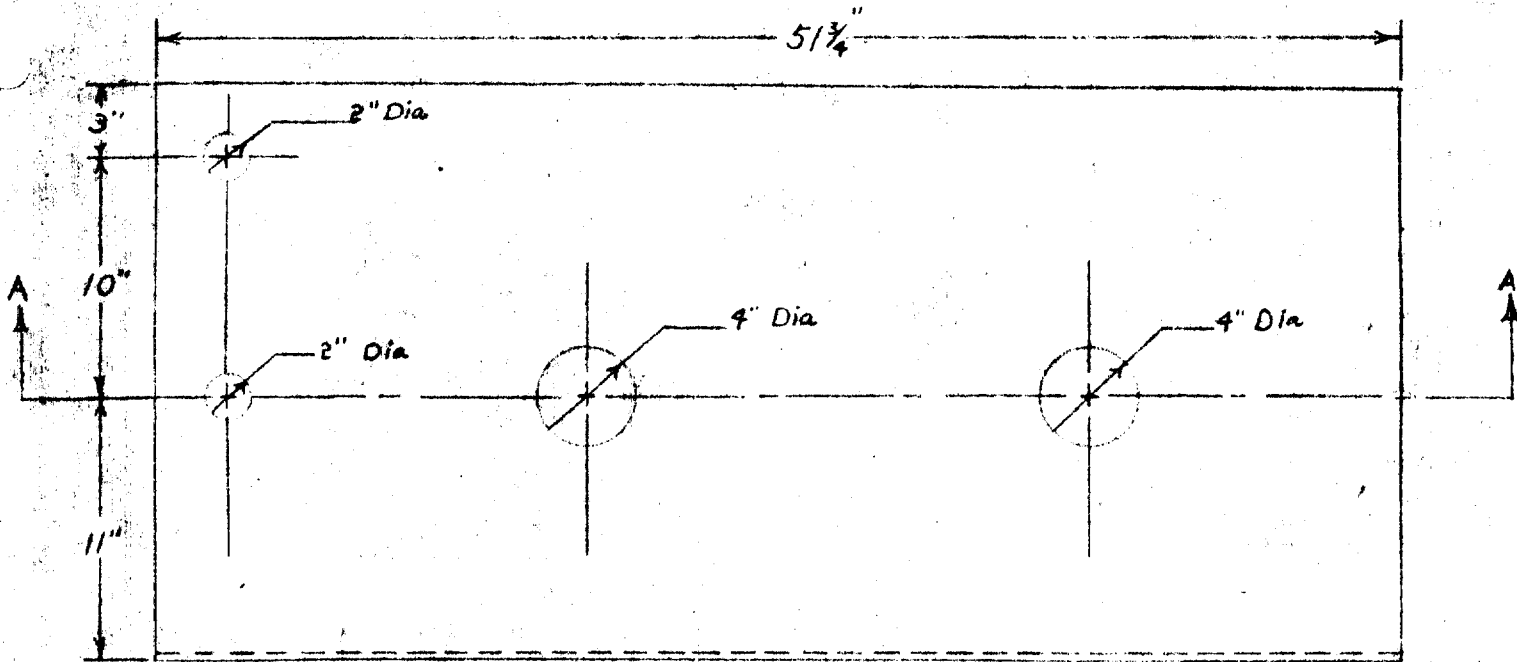
GRAY	PLANNING	PICTURES	DE ERASS	BLUE PRINTS			REVISIONS						
				PRINTED	COPIES	PURPOSE	REVISION	DATE	CHECK	REVISION	DATE	CHECK	

KEWAUNEE MANUFACTURING COMPANY
Adrian, Michigan

CUSTOMER	ORDER NUMBER	DRAWN BY	SCALE
	W-3338	M. J. L. S. J. S.	1" = 1'-0"

SECRET

UNCLASSIFIED



Section A-A

Shelf for "Cut" Room
PART # 310

SECRET

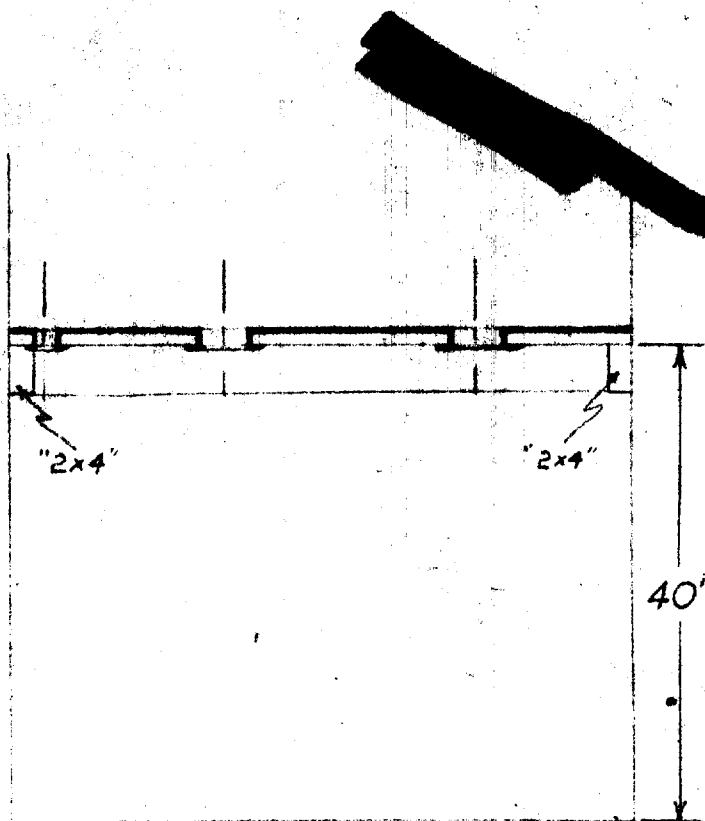
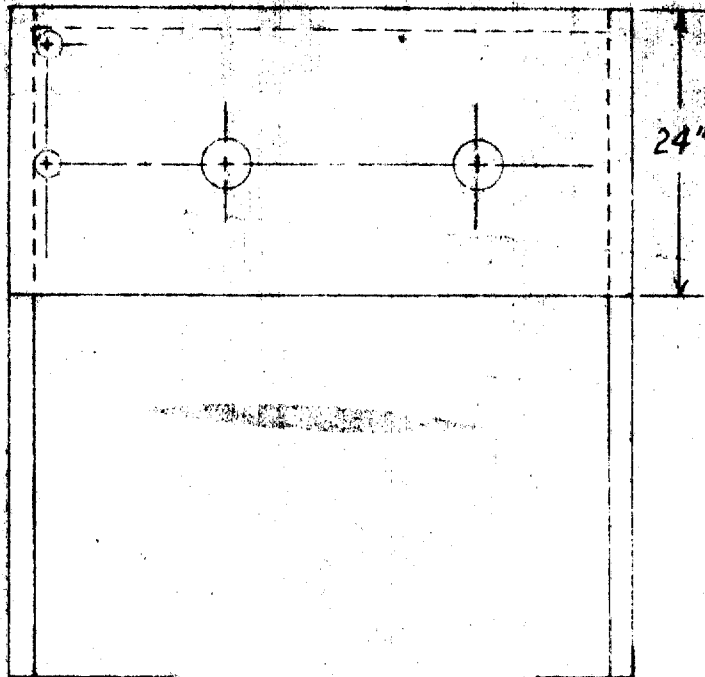
SECRET

Scale: 1" = 8"

UNCLASSIFIED

SECRET

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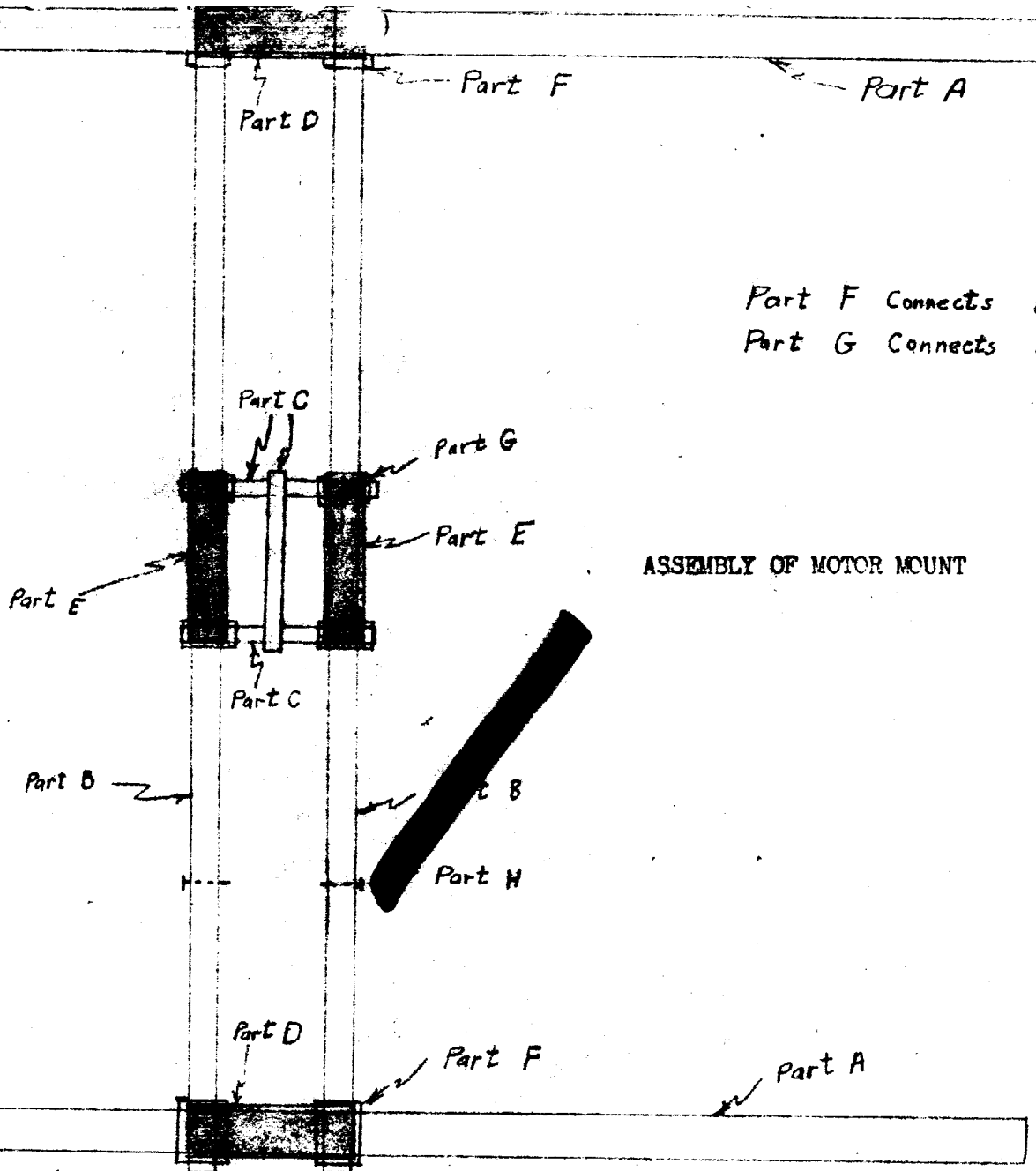
Shelf in "Cut" Room

PART 4310

PAGE 127

Scale: 1" = 16"

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Part F Connects D and B
 Part G Connects E and C

ASSEMBLY OF MOTOR MOUNT 4320

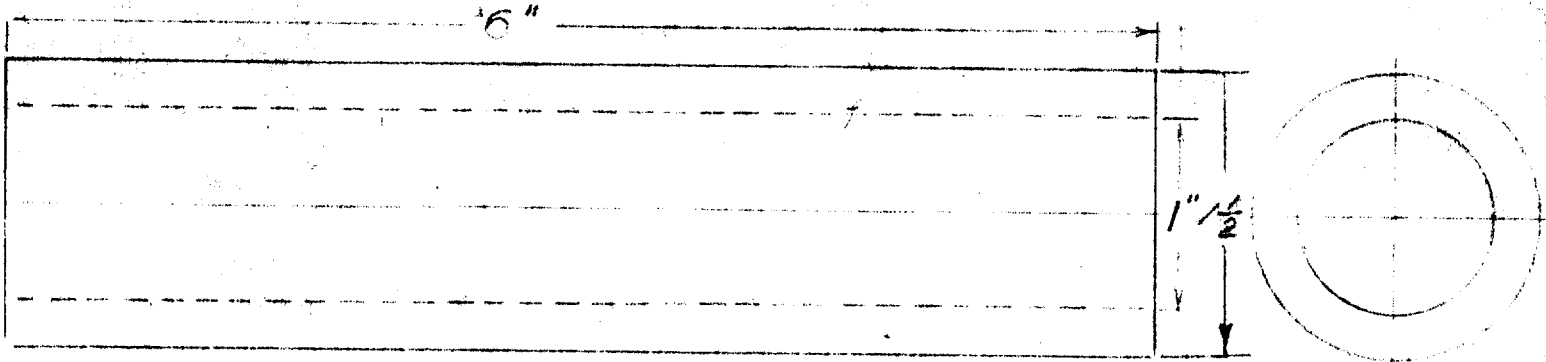
PAGE 126

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DECLASSIFIED

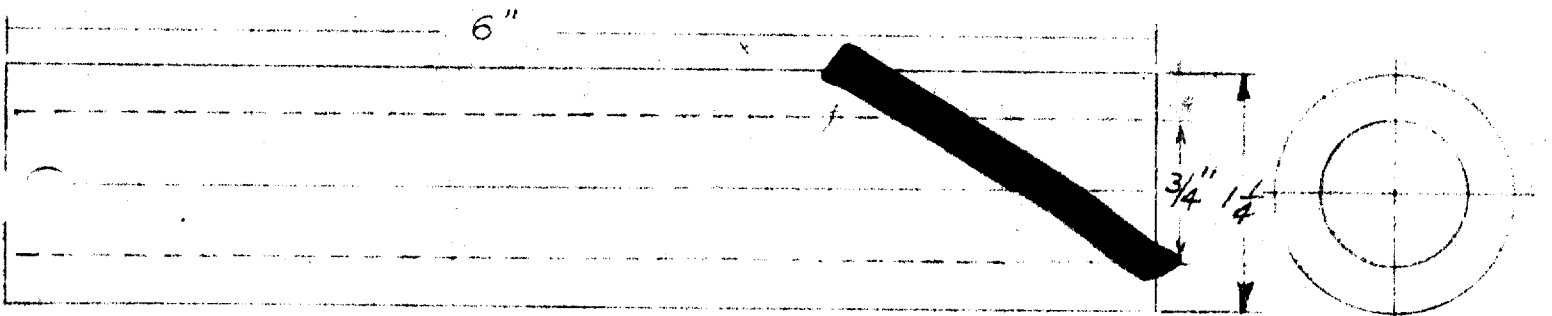
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Part D

Make 2

Inside Dimension Should Have a Slip Fit Over the 1" Steel Rod Marked "Part A."



Part E

Make 2

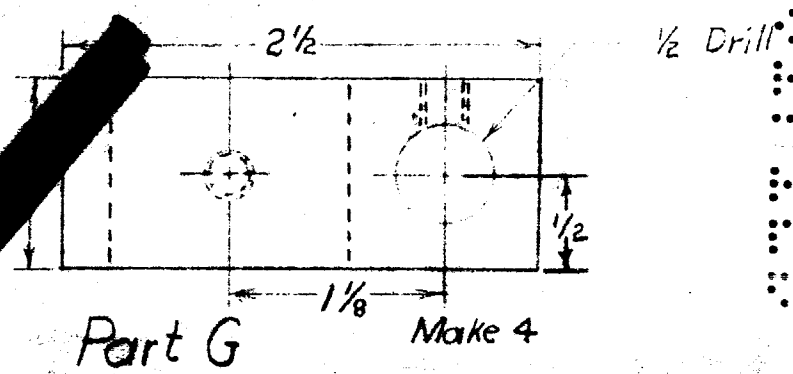
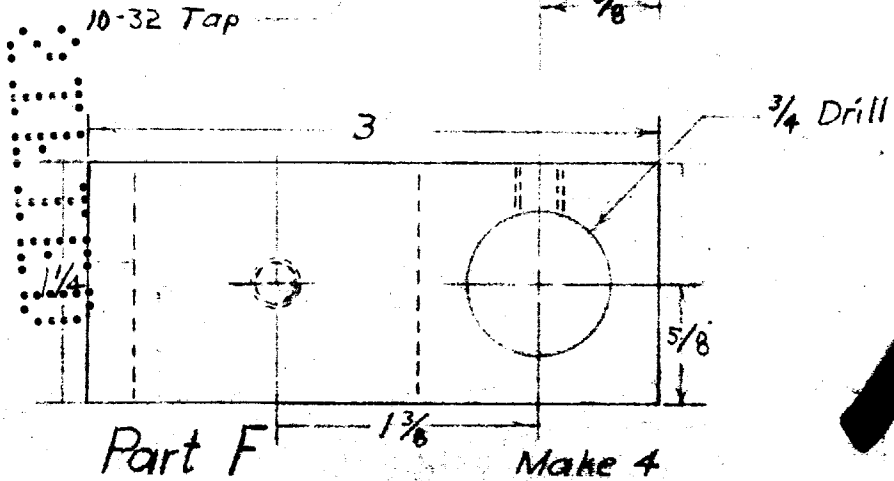
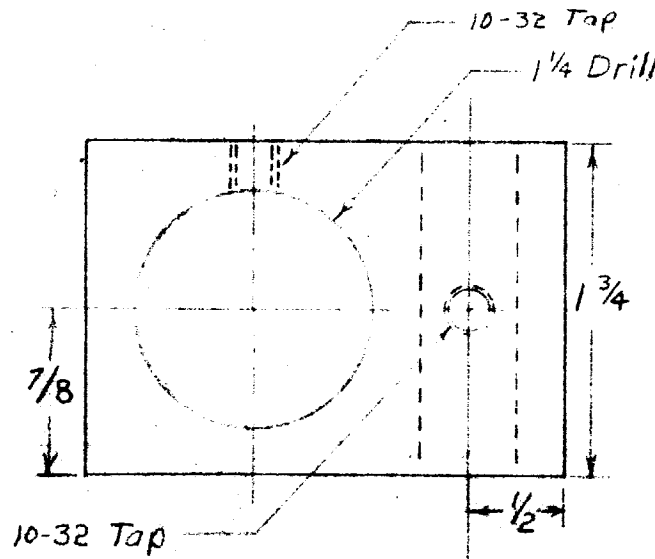
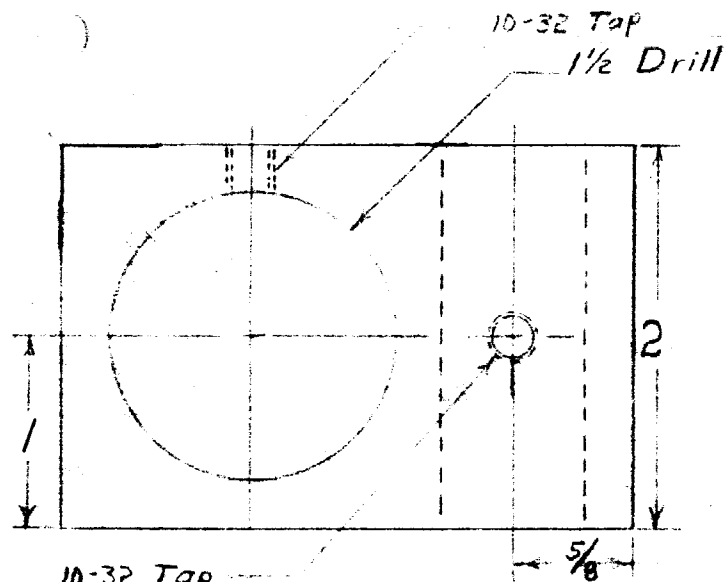
Inside Dimension Should Have a Slip Fit Over the 3/4" Steel Rod Marked "Part B"

Brass Bushings for Motor Mount

4320 - A

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STEEL ADAPTERS FOR MOTOR MOUNT

1/2" Hole Has a Slip Fit Over
Brass Bushing, Part D

3/4" Hole Has a Slip Fit Over
Steel Rod, Part B

1/4" Hole Has a Slip Fit Over
Brass Bushing, Part E

1/2" Hole Has a Slip Fit Over
Steel Rod, Part C

4320-B

Scale: 1"=1"

ADAPTERS FOR MOTOR MOUNT

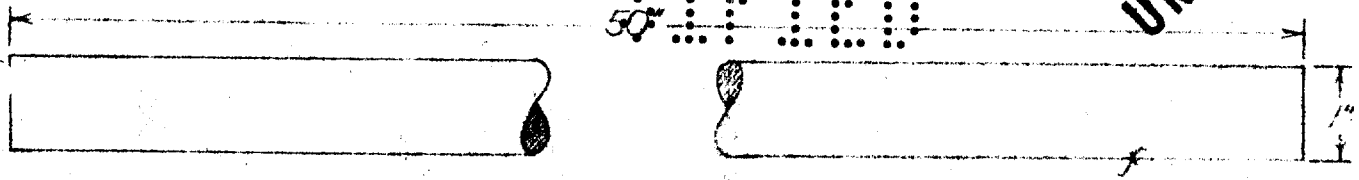
PAGE 130

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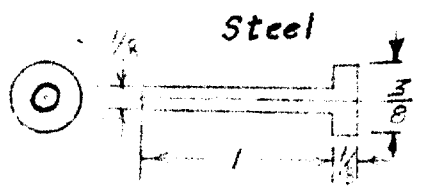
DECLASSIFIED

UNCLASS.



Part A Steel Make 2

Part H should be a slip fit into the 1/8" holes drilled in Part B



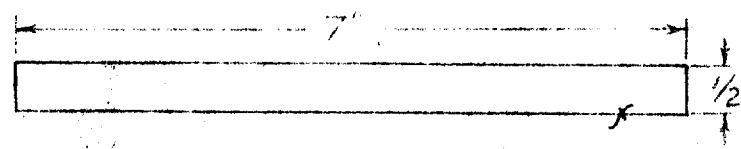
Part H Make 4
43550-D



Part B Steel Make 2

In This piece, Drill 12 1/8" holes at 3" Intervals. The First is to be 3" from one End, and the Last 4 inches From the Other End.

Note: Tolerance is not critical



Part C Steel Make 3

Part C should slip into 1/2" Adapter which is Furnished

4320-C

Tolerances: ± 0.01 on Diameters
± 0.15 on Lengths

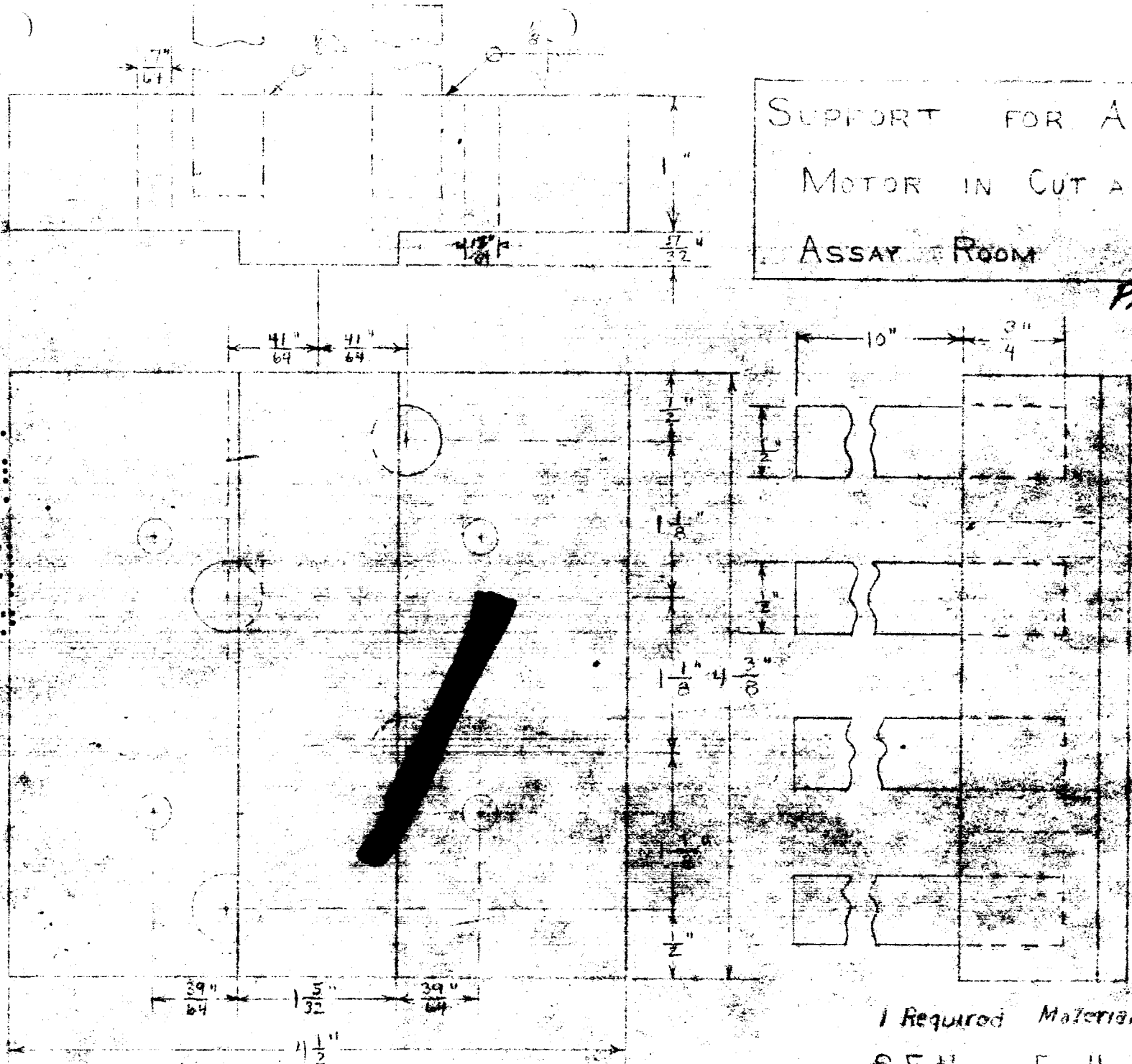
Parts for Motor Mount

DECLASSIFIED

UNCLASSIFIED

SUPPORT FOR AIR
MOTOR IN CUT AND
ASSAY ROOM

PART 4330



UNCLASSIFIED

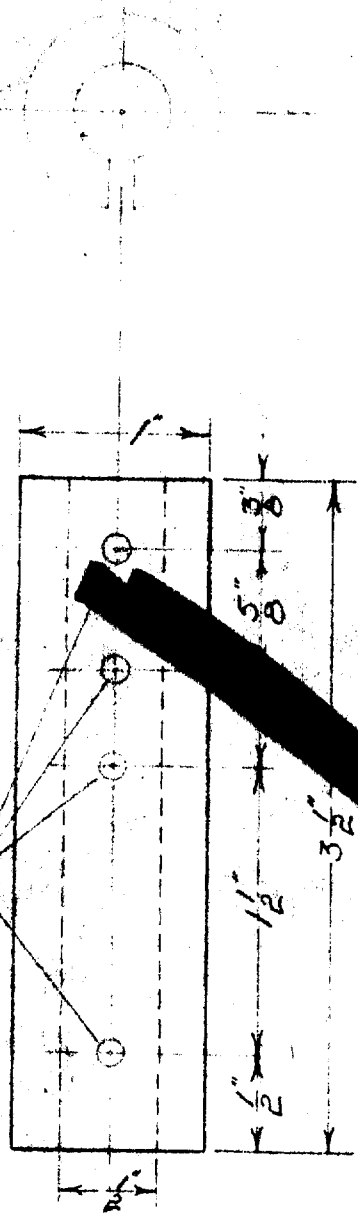
UNCLASSIFIED

1 Required Material - Mild Steel

S.E.H. 5-4-45

ADAPTER - MOTOR TO STIRRER
PART 4340

UNCLASSIFIED



$\frac{1}{4}$ " - 8-32 Allen head set
 screws
 #2 fit on threads for
 Allen head

(18-B)
 Make from stainless steel.
 Grind inside to tolerance of

$5.000 \pm .003$
 $5.000 \pm .000$

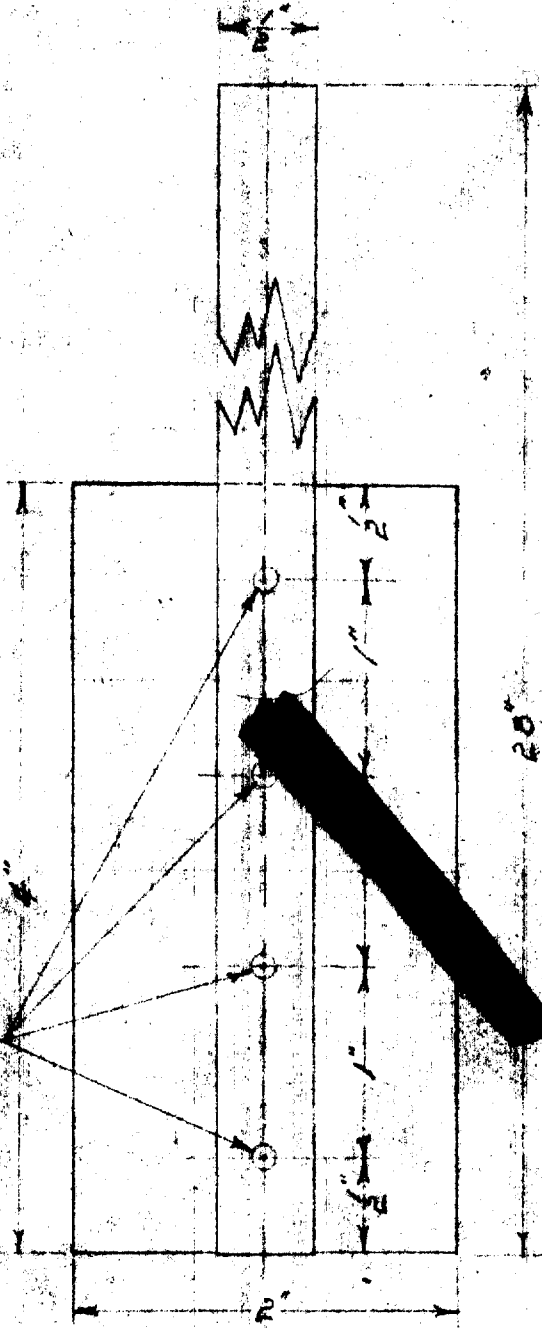
UNCLASSIFIED

5-June-45

UNCLASSIFIED

S. N. STIRNER

PART 4350



1/8-inch tantalum dowels force fit

Shaft is 1/2" tantalum rod
Blade is tantalum sheet
mil

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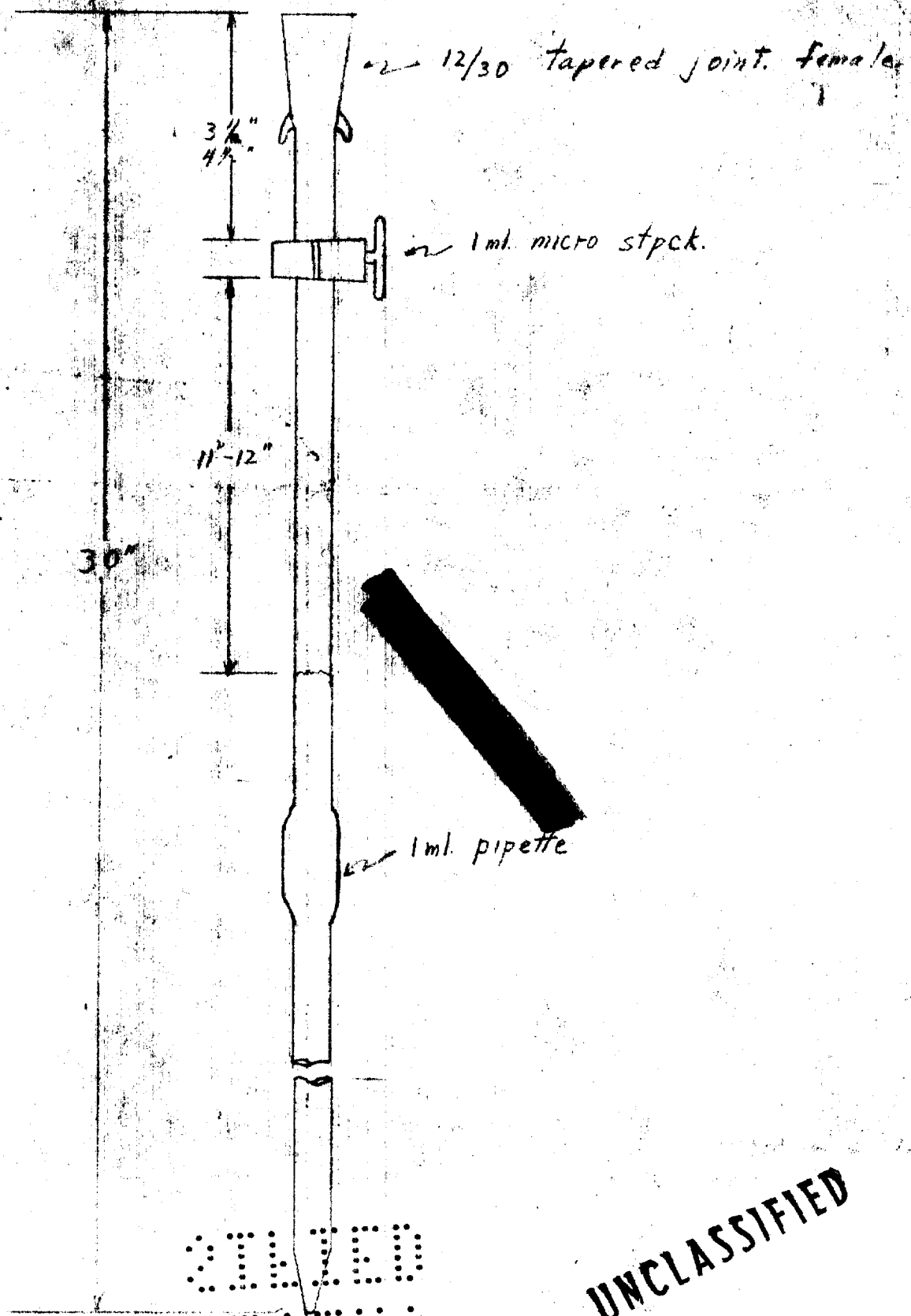
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UNCLASSIFIED

SN Cut Pipette

PART 4360



000000
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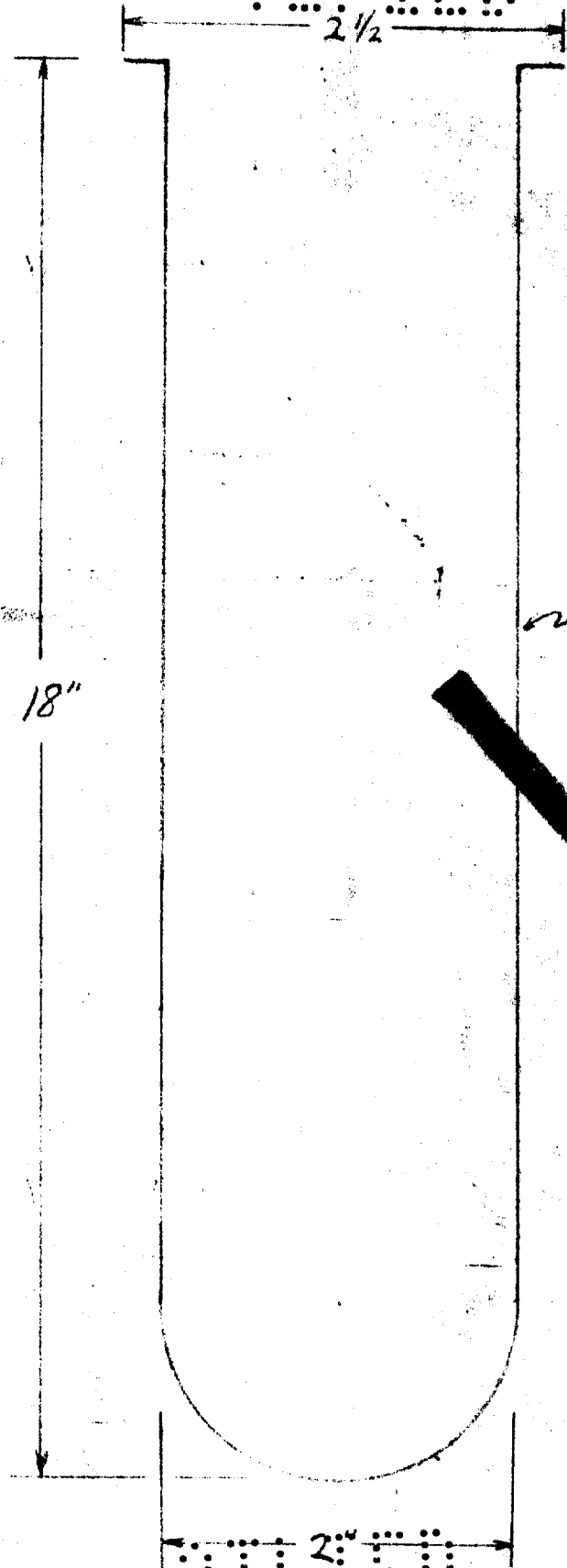
8 7-45

Pipette Holder

STANDARD

PART 4370

UNCLASSIFIED



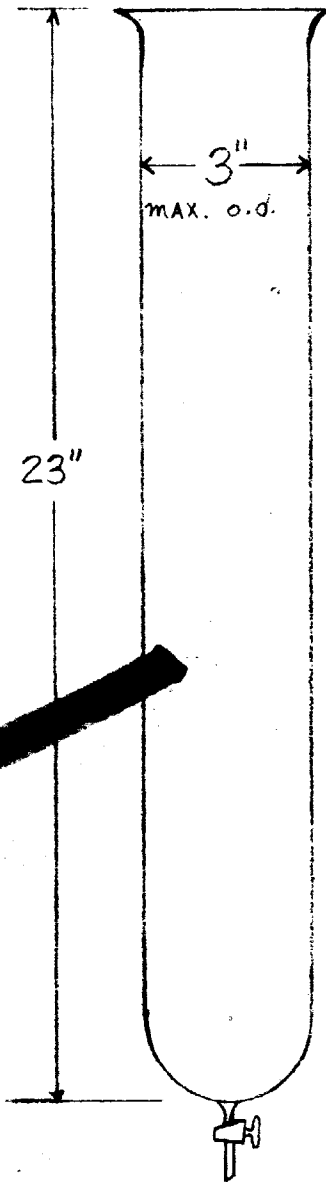
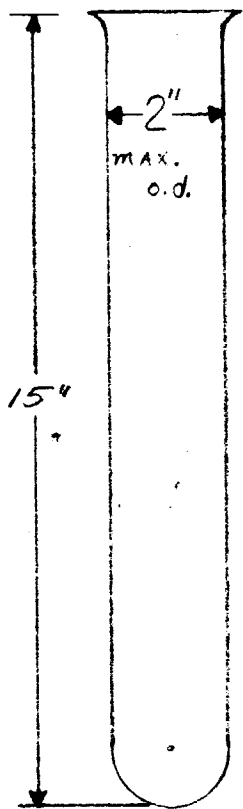
Heavy-wall. pyrex

STANDARD

UNCLASSIFIED

JCB 8-2-45

S.N. Cut Room Drip Catchers - Part 4380



Top flanges, 1/4" wide.
 Since tubing is in mm,
 select nearest undersize
 piece.

Pyrex glass throughout

P.131

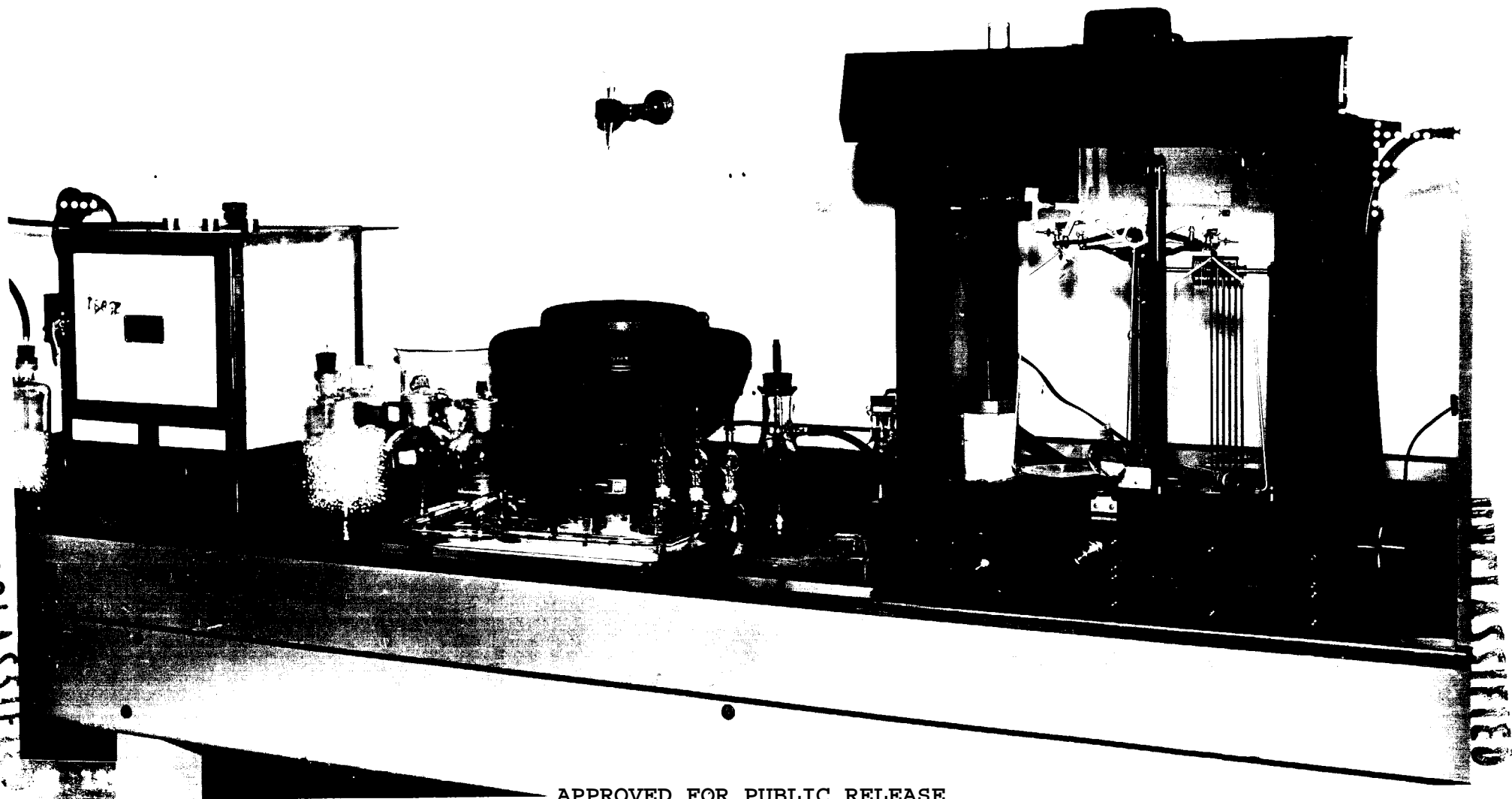
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yes



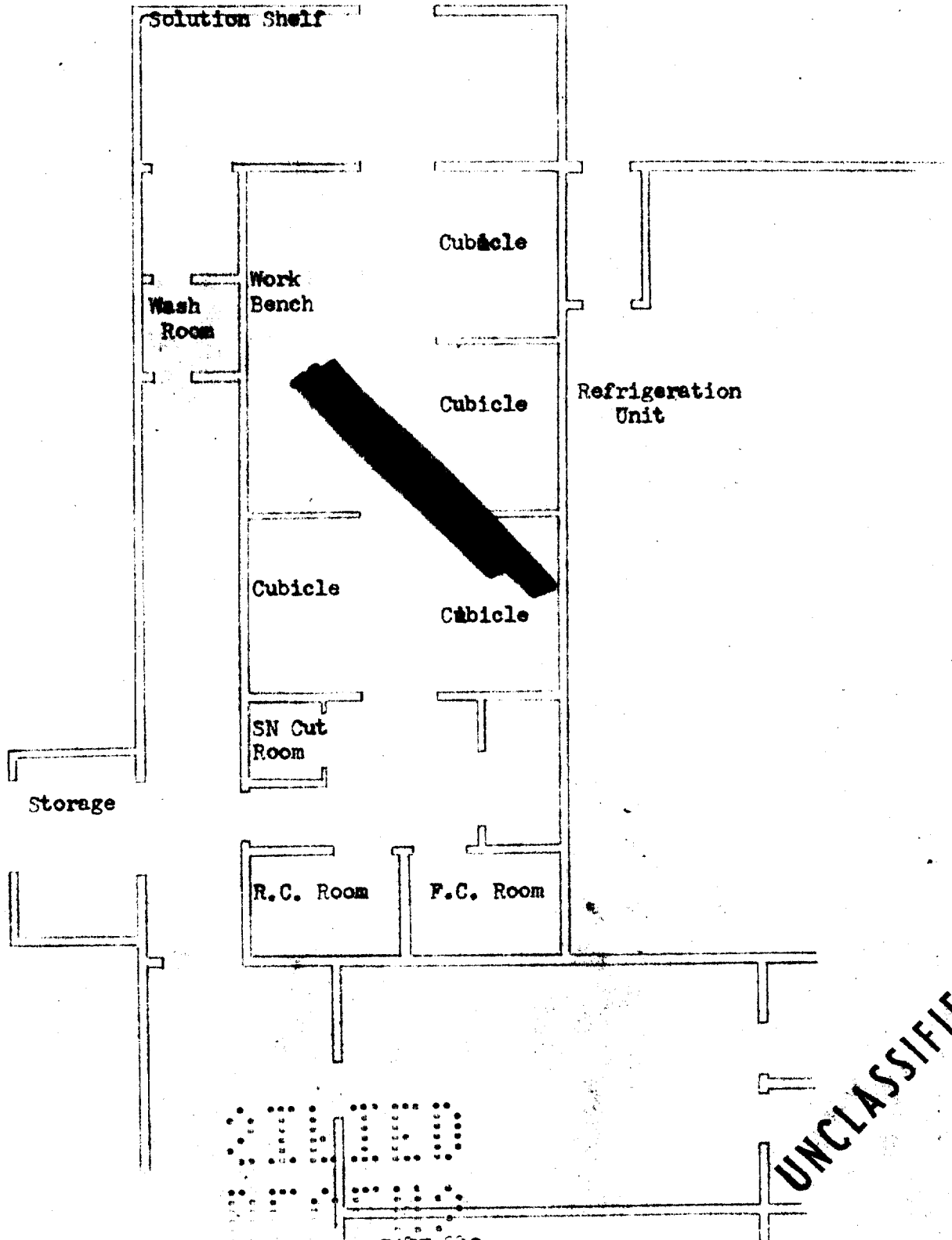
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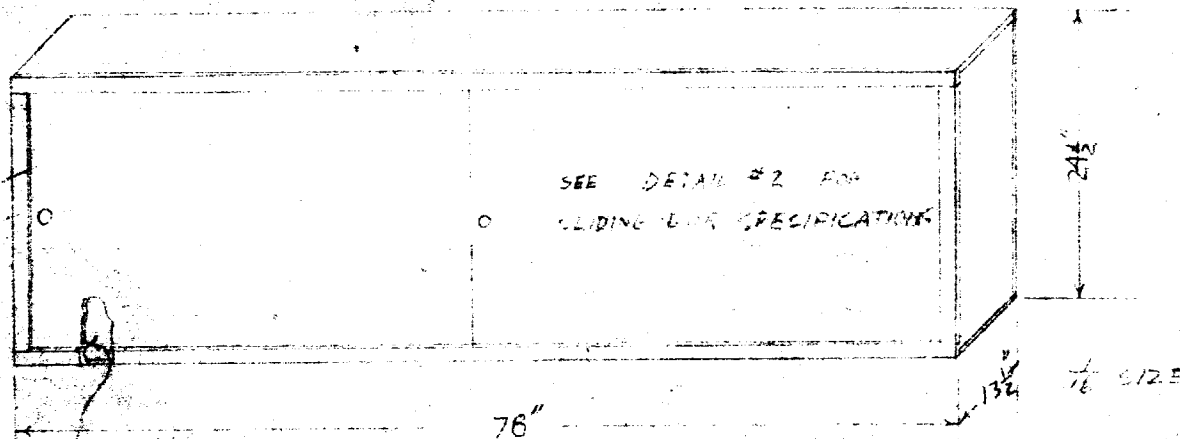
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ROOM LAYOUT * * D - 152



UNCLASSIFIED

CAN CABINET - 3 REQ'D



TOP AND SIDES $\frac{5}{8}$ " PLYWOOD
 BACK AND DOORS $\frac{1}{4}$ " PLYWOOD

FOR DOOR SLOT &
 FRONT PIECE
 SEE DETAIL #1

SEE DETAIL #2 FOR
 SLIDING DOOR SPECIFICATIONS

24 1/2"

76"

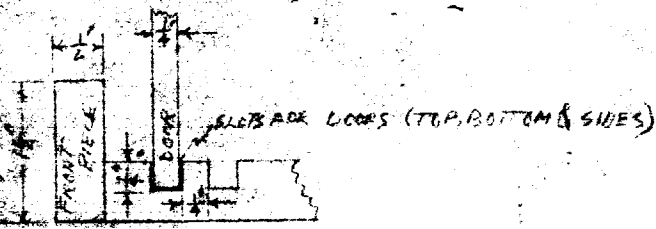
13 1/2" 1/2 SIZE

PAGE ONE

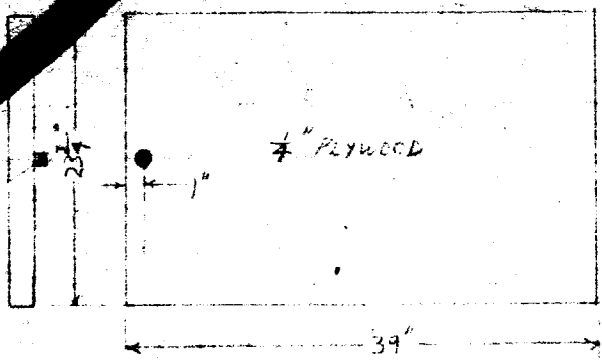
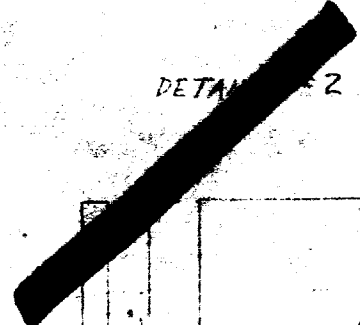
DETAIL #1

DETAIL #2

DOORS (2 FOR EACH UNIT)

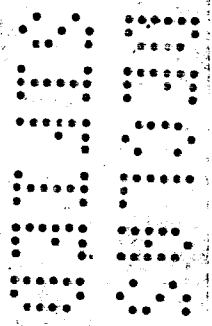


1/2 SIZE



1/2 SIZE

KNOB - PLAKLITE CYLINDER
 1/2" DIAM, 7/8" LONG; FASTEN
 TO DOOR WITH COUNTERSINK SCREW THRU CENTER OF KNOB.



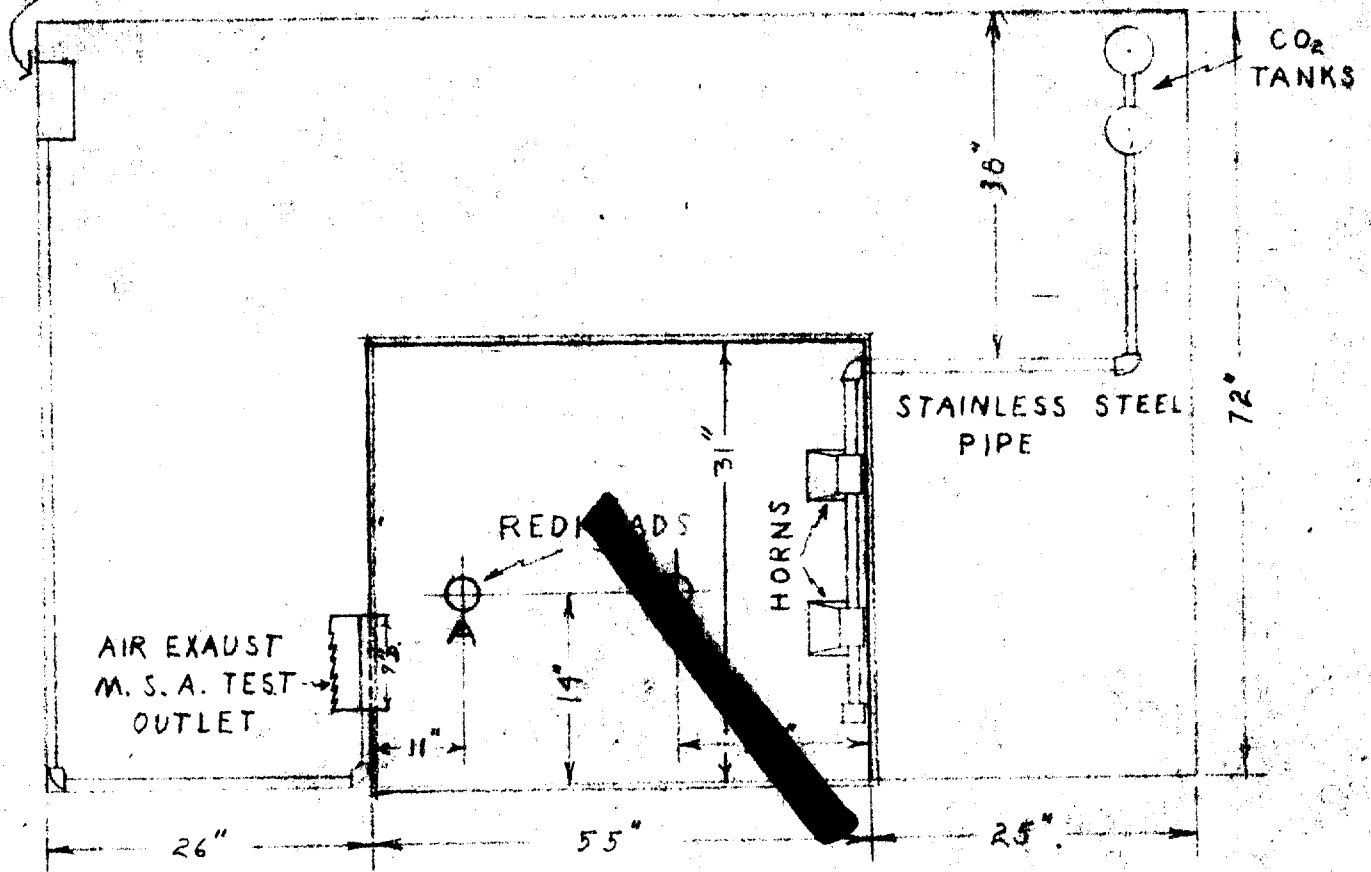
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REF ID: A710

UNCLASSIFIED

M.S.A.
ALARM



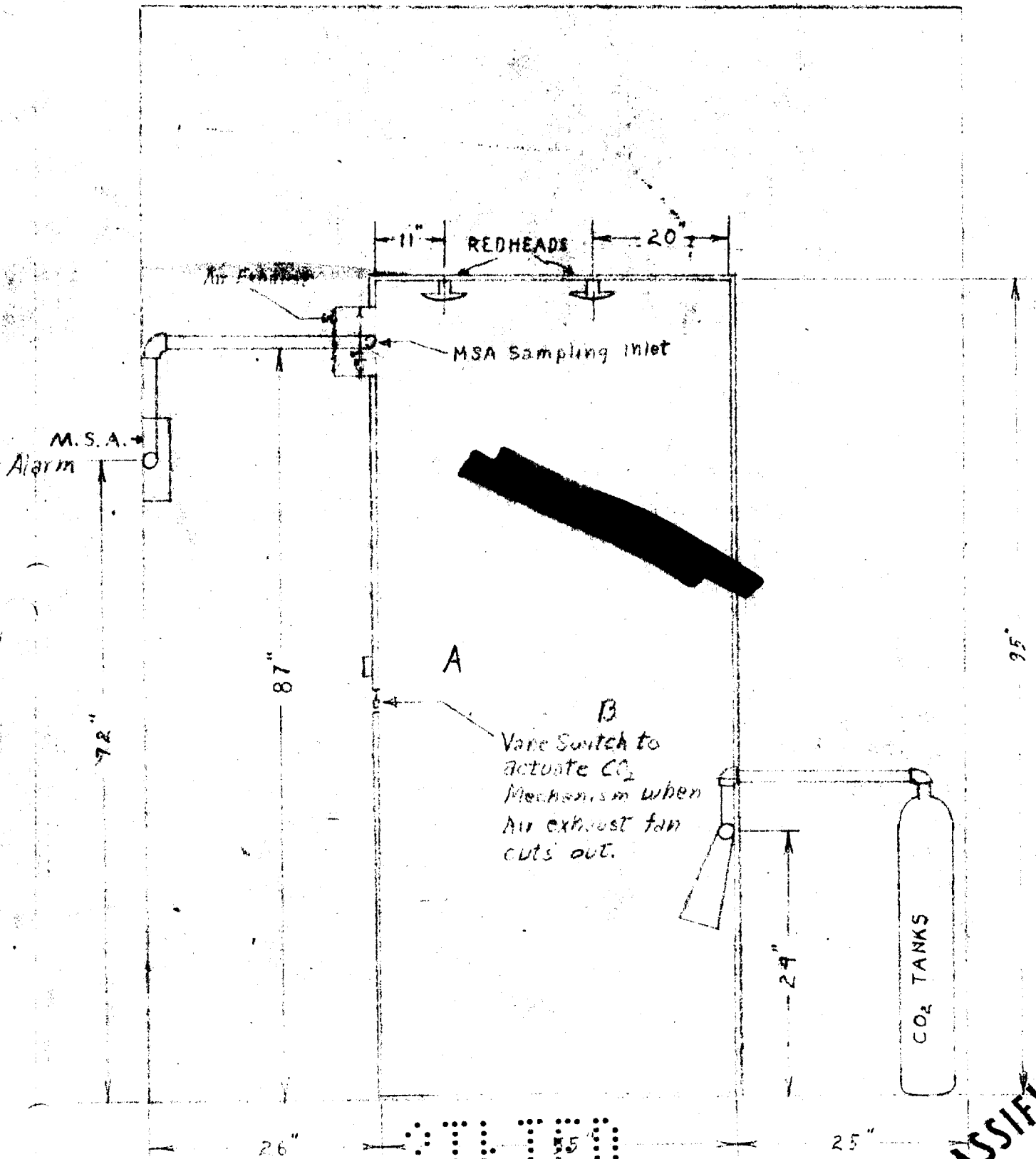
M.S.A. : MINE SAFETY APPARATUS ALARM
 REDHEAD : Device that activates Automatic CO₂ Tanks when the rate of Temperature rise is rapid

REF ID: A710

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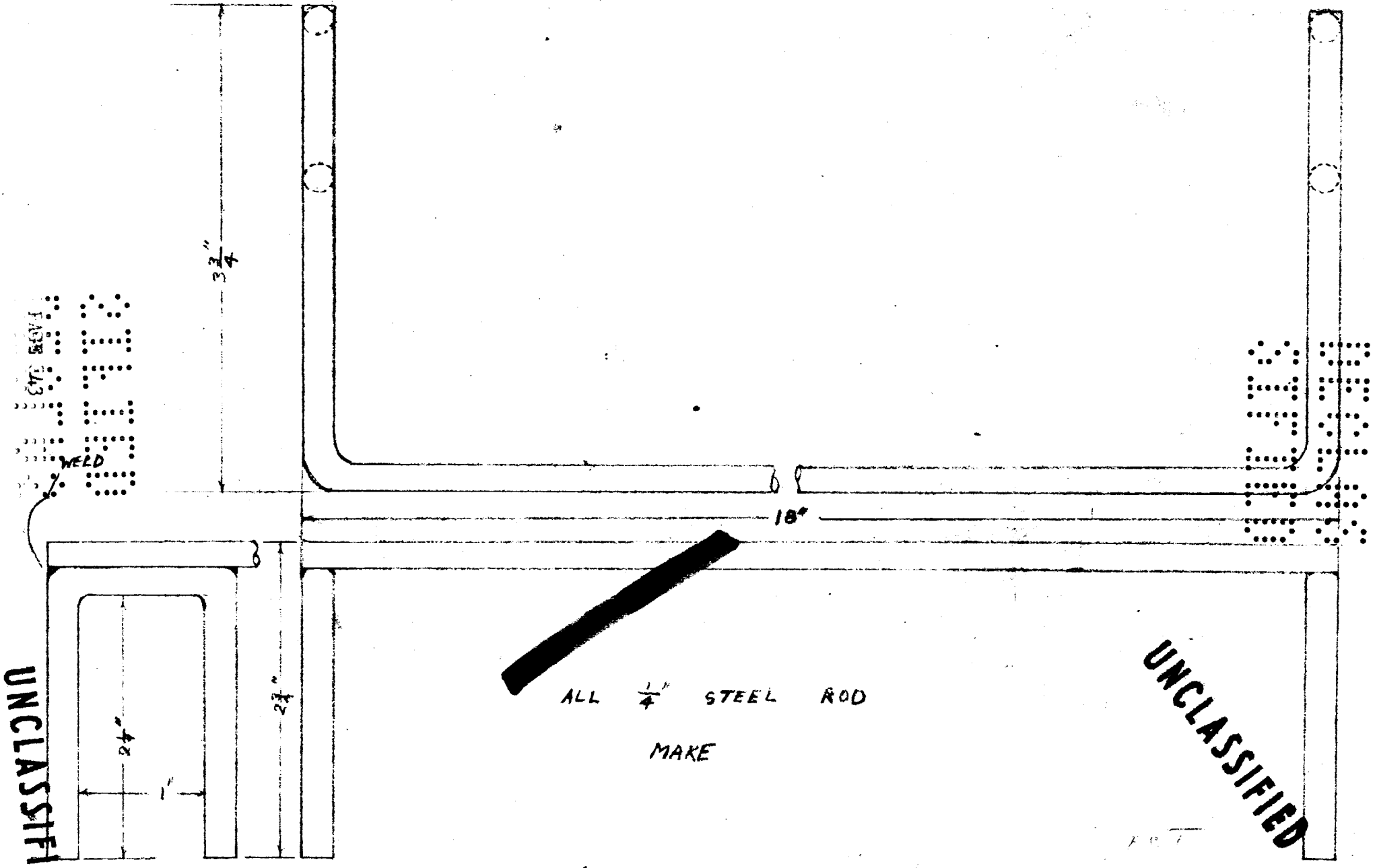
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DOLLY HANDLE

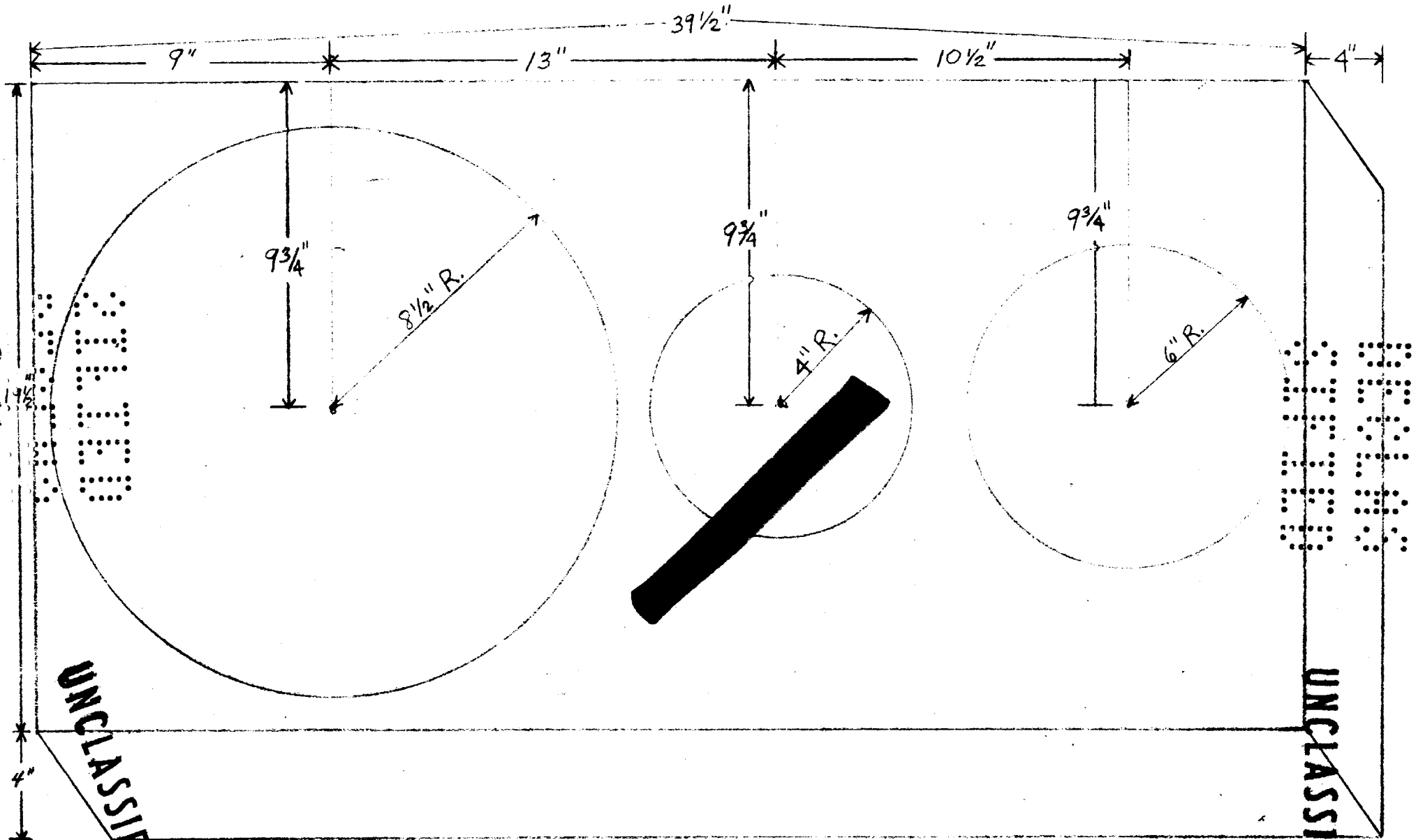


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ALL 1/4" STEEL ROD
MAKE

HUM



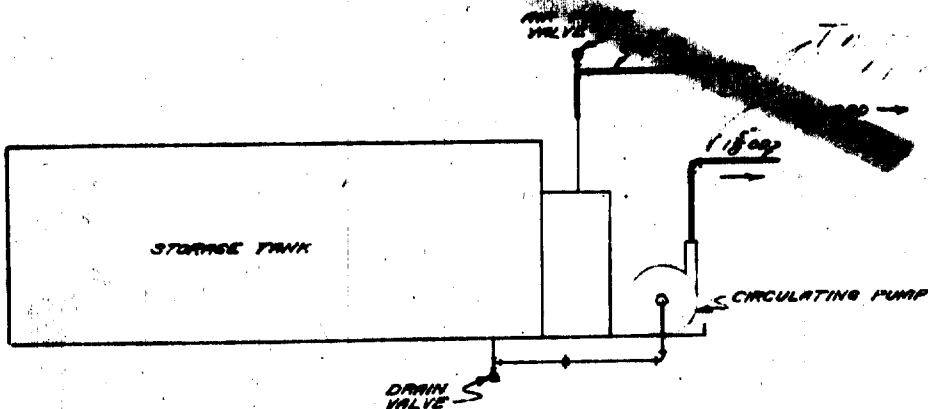
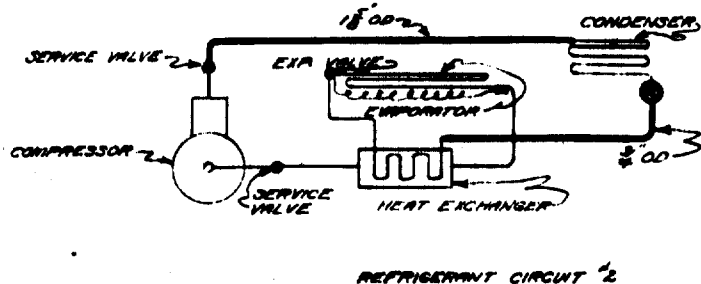
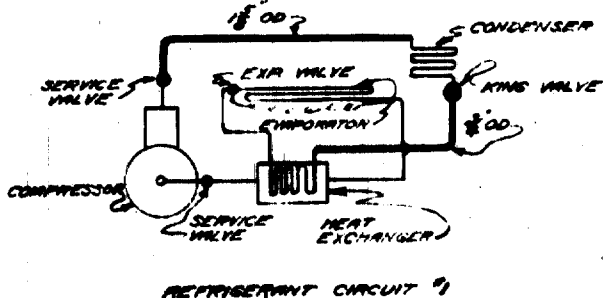
P. 144

S. N. Cart Frame - Of 1/2" Plywood
 Finish - Shellac and White Enamel

gill

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NOTE:
 HEAVY LINE WILL BE
 SHIPPED LOOSE TO BE
 INSTALLED IN FIELD

C-4005

1450-A

UNIVERSITY OF CALIFORNIA
FIELD ASSEMBLY DRAWING

J.H.

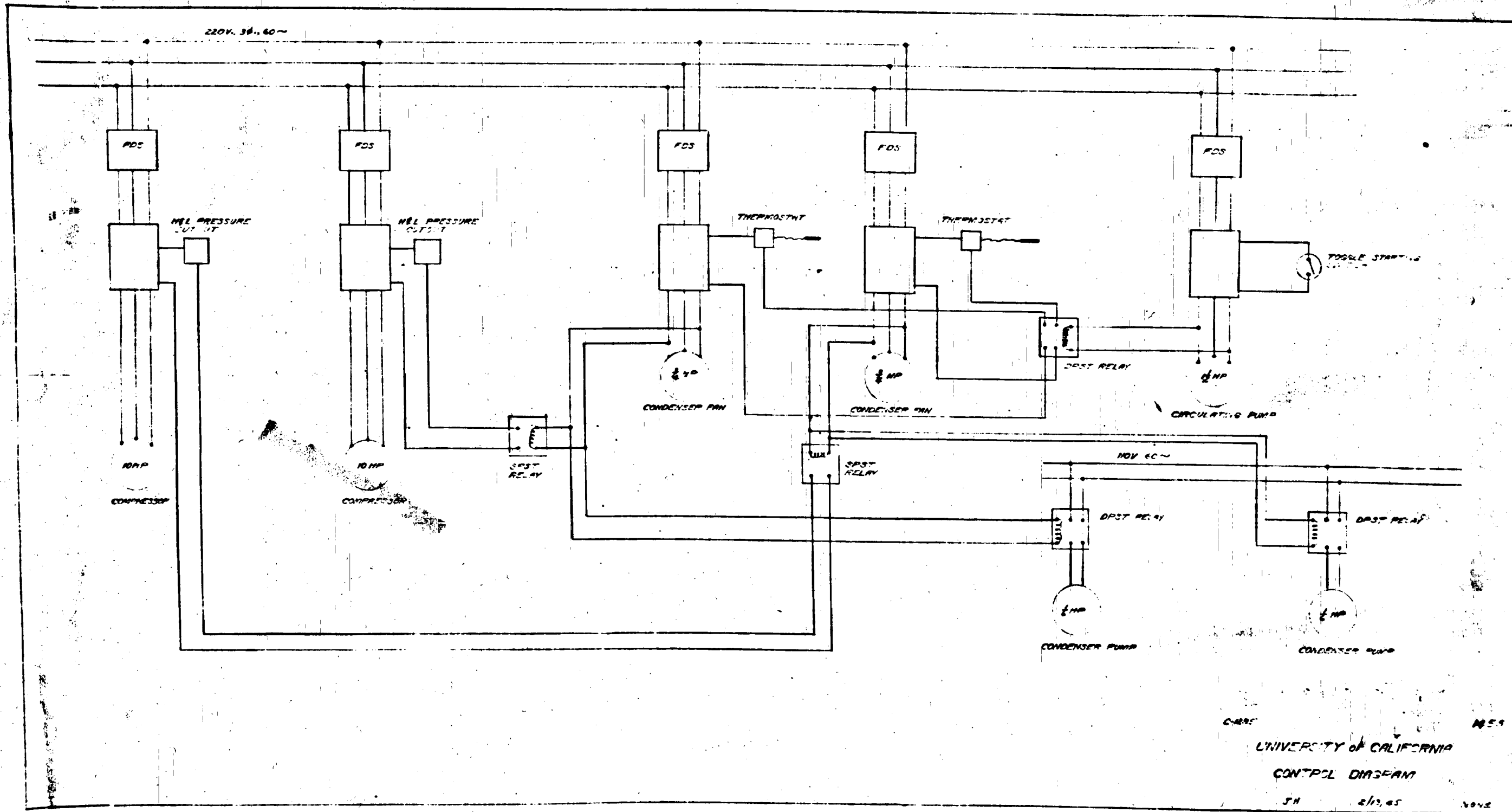
2/12/65

NO. 112

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C-885 459
 UNIVERSITY OF CALIFORNIA
 CONTROL DIAGRAM
 JH 2/17/45 4022

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Data Sheet on Standard Industrial Equipment Purchased

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Air Motors - - - Binks Agitating Unit 939-A, page 939 in catalogue
Binks Manufacturing Corporation

Circulating Pumps - - - Style 153 B 700; Gould Centrifugal Pump
Gould Pumps Incorporated

Combustible Gas Indicator- - - Type W-5, calibrated for diethyl ether
Catalogue DM-7782
Mine Safety Appliance Company

Combustible Gas Alarm - - - Page 62 in catalogue
Mine Safety Appliance Company

CO₂ Fire Extinguishing System - Kidde Proposal 7975
Walter Kidde & Company

Dial Thermometer - - - Serial D-34371, Bulletin 148-7
Foxboro Company

Flexible Cable - - - Shaft, Control, Flexible, #150154
Casing, Flexible, #169A6
S. S. White Dental Manufacturing Company

Intercommunication System - - Type W - 122 - A
Rauland Engineer Corp.

Mercoid Switch - - - Control, Mercoid, 115/230V., 20 watt maximum
Type DA-231-3, 0-30" vacuum
Mercoid Corporation

Reducing Valve - - - No. 227, 1/2" valve, catalogue 73
Mason-Neilan Regulator Company

Refrigeration Unit - - - Compressor, Expansion Chamber, Reservoir,
Brine, Circulating Pump, Centrifugal Pump from
W. S. Kirkpatrick & Co.

Resistance Thermometer - - - Catalogue 9004, Page 8
Serial No. 229381
Brown Instrument Company

Supernatant Carts - - - Trucks, Box, Standard Steel; Fig. 870-3
Code LUCRE, Fig. 871 and 975
Nutting Truck and Caster Co.

Vacuum Unit - - - from Yeoman Brothers Company
Chicago, Ill.

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