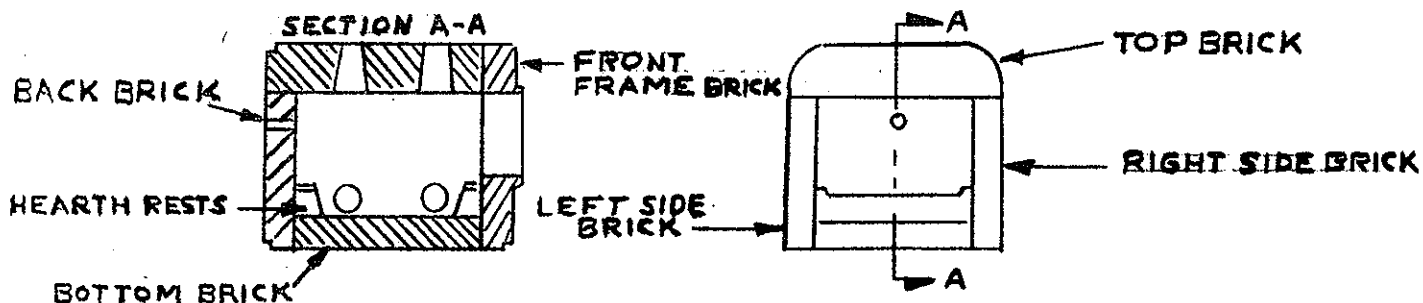
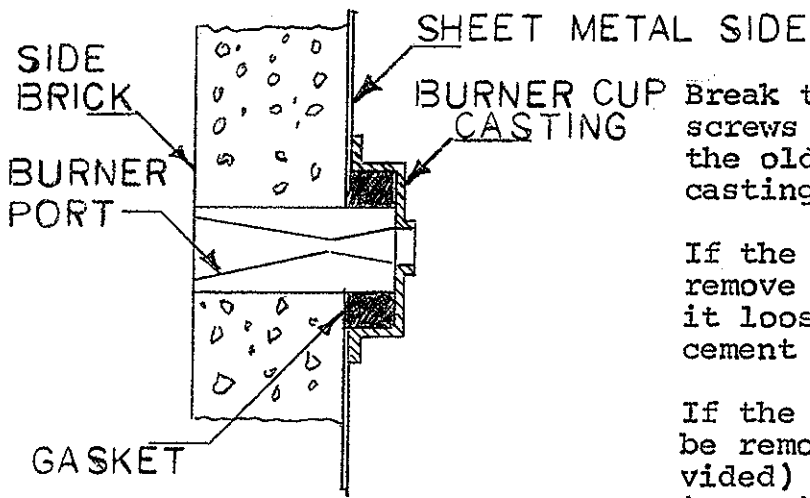


- 1.) AS YOU FACE FRONT OF FURNACE, PLACE SIDE BRICK ON LEFT SIDE OF FURNACE. MAKE SURE HOLES IN BRICK MATCH HOLES IN METAL SHIELD.
- 2.) PUT SMALL AMOUNT OF CEMENT ON LEFT SIDE OF BACK BRICK AND SET IN PLACE, WITH ARROWS POINTING UPWARD.
- 3.) PUT SMALL AMOUNT OF CEMENT ON LEFT SIDE AND BACK OF BOTTOM BRICK AND POSITION.
- 4.) PUT CEMENT ON RIGHT SIDE OF BOTTOM AND BACK BRICK AND POSITION RIGHT SIDE BRICK. MAKE SURE HOLES IN BRICK MATCH HOLES IN METAL SHIELD. NOTE: IF YOU HAVE A GAS PILOT BURNER ON THE RIGHT SIDE (AND DID NOT SPECIFY THIS ON YOUR ORDER) USE A 2" HOLE SAW AND DRILL THE OPENING FOR THE PILOT PORT. NOTIFY OUR FACTORY THAT YOU REQUIRE A #142 PILOT PORT WITH INSTALLATION INSTRUCTIONS.
- 5.) CEMENT THE TOP OF THE TWO SIDE BRICKS AND BACK BRICK AND SLIDE THE TOP BRICK INTO POSITION.
- 6.) CHECK ALL CEMENTED JOINTS MAKING SURE ENOUGH CEMENT HAS BEEN USED.
- 7.) CEMENT ALL FRONT SURFACES AND POSITION FRONT REFRACTORY DOOR FRAME. REPLACE FRONT CASTING.
- 8.) PLACE THE BURNER PORT END (WITH THE SMALL OPENING) IN THE CENTER OF AND AGAINST THE BURNER CUP CASTING. PLACE THE GASKET MATERIAL IN THE CUP CASTING AND AROUND THE BURNER PORT. USING YOUR THUMBS OR A BLOCK OF WOOD, PRESS THE GASKET MATERIAL DOWN INSIDE THE CUP CASTING UNTIL IT IS JUST SLIGHTLY ABOVE THE TOP OF THE CUP CASTING. PUT A 1/8" LAYER OF CEMENT AROUND THE OUTSIDE OF THE BURNER PORT AND ON THE SURFACE OF THE GASKET. INSERT THE BURNER PORT THROUGH THE HOLE IN THE SIDE BRICK. LINE UP THE HOLES IN THE SHEET METAL AND CUP CASTING. USE THE SCREWS TO DRAW THE BURNER PORT AND CUP CASTING IN PLACE. MAKE SURE THE END OF THE BURNER PORT IS AGAINST THE CUP CASTING AND THE HOLES THROUGH THE CENTER LINE UP AND ARE CLEAR OF CEMENT.
- 9.) PLACE CEMENT ON SIDE AND BOTTOM OF HEARTH RESTS. PLACE IN POSITION AT FRONT AND BACK OF FURNACE. POSITION HEARTH PLATE. ALLOW 24 HOURS FOR SET UP BEFORE USING.

DOOR LINING

- 1.) TO POUR DOOR LINING, LAY 1/2" INSULATING BLOCK IN BOTTOM OF DOOR CASTING.
- 2.) MIX 25 POUNDS OF CASTABLE MATERIAL TO AN EVEN CONSISTENCY.
- 3.) ADD BETWEEN 2½ AND 3 QUARTS OF CLEAR WATER TO THE CASTABLE. MIX THOROUGHLY AND POUR INTO DOOR CASTING.
- 4.) USE A STRAIGHT EDGE TO LEVEL OFF THE TOP SURFACE. MAKE SURE CASTABLE IS LEVEL WITH THE SIDES OF THE DOOR CASTING.



REPLACING PORT & GASKET IN OVEN FURNACES

Break the union in the piping. Loosen the screws and remove the cup casting. Remove the old gasket and any cement from the cup casting.

If the burner port is cracked or deteriorated remove it by tapping the sides lightly to break it loose or crack it. Remove any chunks of cement that remain on the side brick.

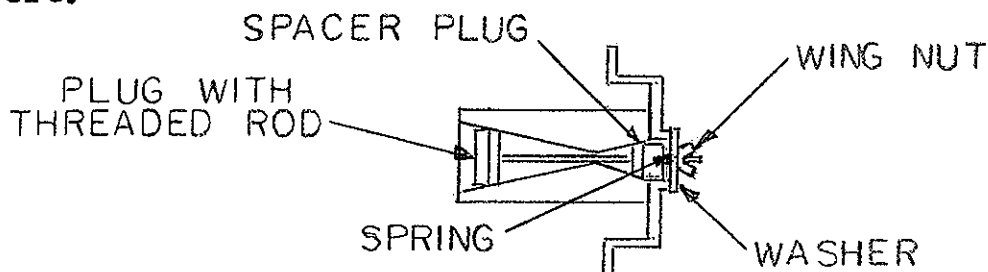
If the burner port is okay and doesn't have to be removed. Place the new burner port (provided) in the center of the burner cup casting, with the small port hole against the casting. Fasten the port in position using

the holding fixture provided. (See sketch at bottom of page.) Place the gasket strip inside the cup casting and around the burner port. Using your thumbs or a block of wood, press the gasket material down, inside the cup casting until it is just above the top of the cup casting.



Disassemble the holding fixture and remove the burner port by rotating it gently. Put a thin layer of cement around the outside of the burner port that is in the side brick. Put a thin layer of cement on the side brick next to the burner port.

Slide the gasket and cup casting over the burner port by rotating the cup casting. Line up the holes in the sheet metal side and cup casting. Tighten the screws and pull the cup casting against the sheet metal side. Make sure the end of the burner port is against the cup casting and the holes through the center are lined up and clear of cement. If the old burner port is to be replaced, repeat the same procedure as above except do not remove the burner port from the cup casting. Put a 1/8" layer of cement around the outside of the burner port. Insert the port through the hole in the side brick. Line up the holes in the sheet metal and cup casting. Use the screws and draw the burner port and cup casting in place. Make sure the end of the burner port is against the cup casting and the holes through the center are lined up and clear of cement. If the hole in the side brick was too large, fill in the space with cement. Allow the cement to set for about one hour, then gently, remove the holding fixture and proceed to another port.



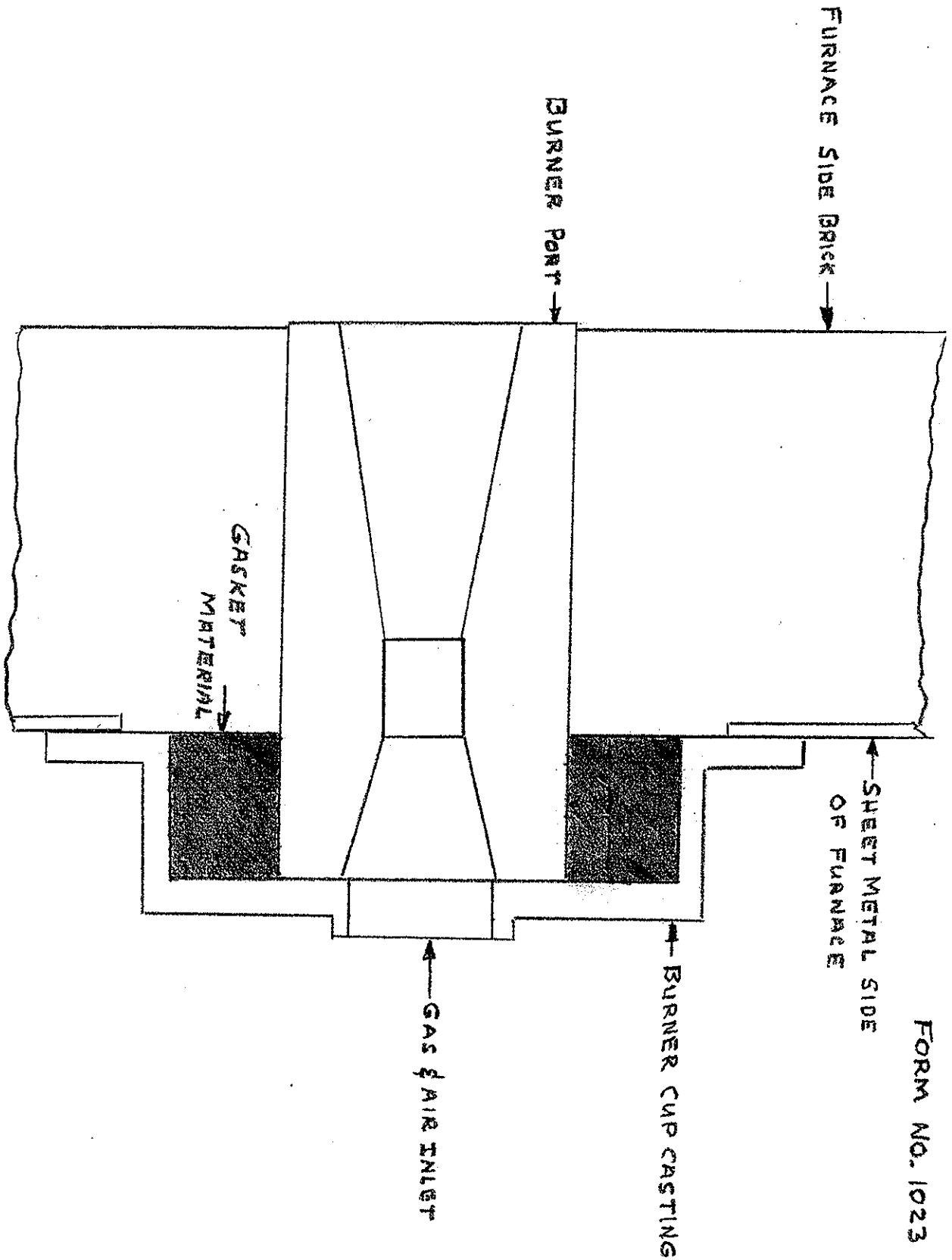


DATE _____ BY _____

ENGINEERING NO. _____

SUBJECT _____

PART NO. **FORM NO. 1023**



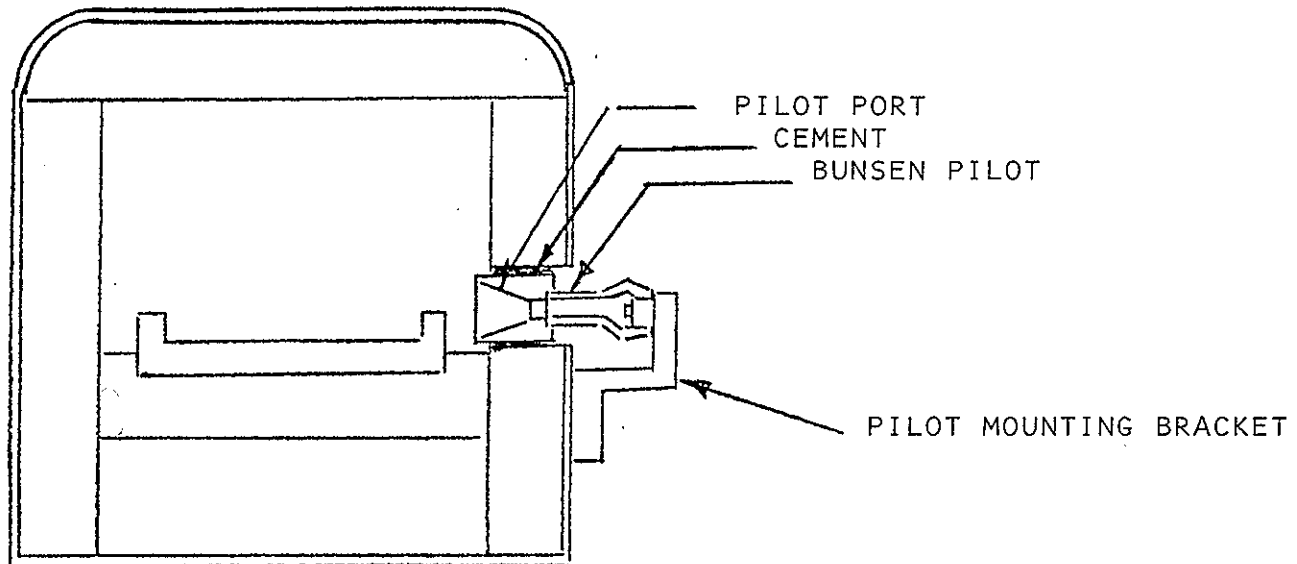
SECTION SHOWING BURNER PORT IN FURNACE

SEE FORM NO 1023

IF YOUR OLD REFRACTORY BURNER PORT WAS BROKEN OR CRACKED; REMOVE THE OLD PORT BY TAPPING THE SIDES GENTLY AND TURNING THE PORT WITH A PIPE WRENCH.

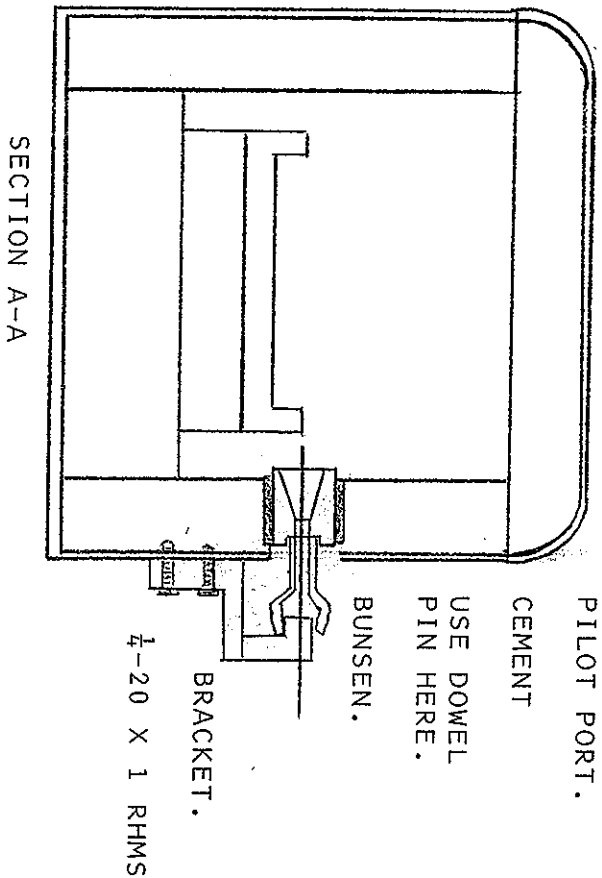
TAKE THE NEW BURNER PORT, GASKET AND PORT CUP AND PUT CEMENT AROUND THE OUTSIDE OF THE BURNER PORT. SLIDE THE NEW PORT INTO PLACE WITH THE SCREW HOLES LINED UP, PUT THE SCREWS BACK IN PLACE AND TIGHTEN. REMOVE ANY EXCESS CEMENT FROM AROUND THE PORT CUP. IF ANY OF THE LINING HAS CHIPPED OFF, FILL IN WITH CEMENT. ALLOW CEMENT TO SET UP FOR AT LEAST 8 HOURS, REPLACE PIPING.

INSTALLING PILOT PORT IN THE SIDE
OF THE FURNACE



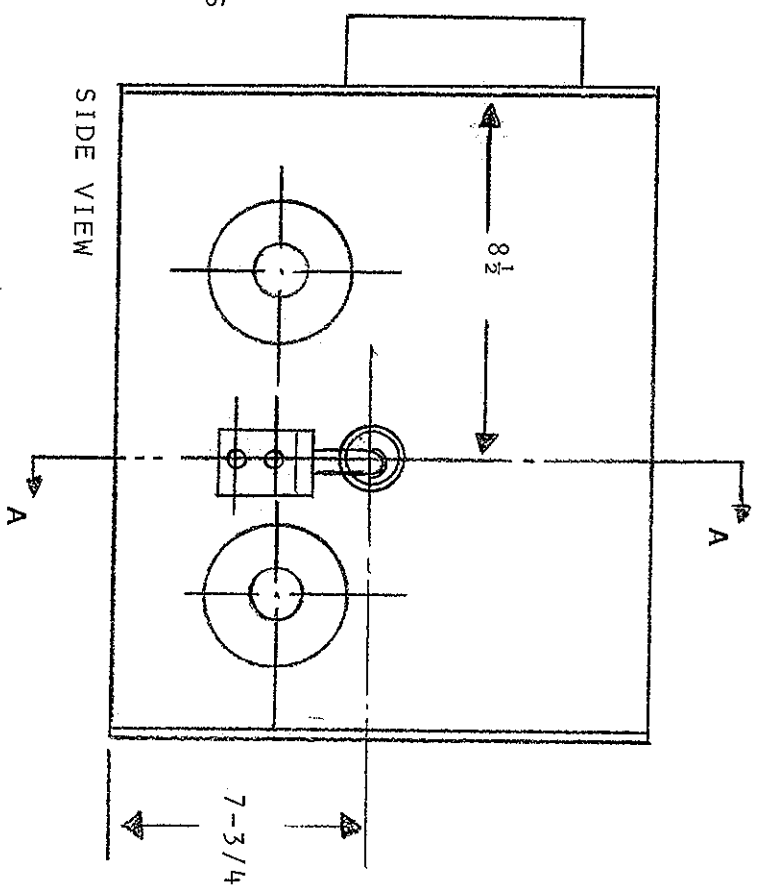
FRONT SECTIONAL VIEW

IF YOU DO NOT HAVE A HOLE IN THE SIDE BRICK FOR THE PILOT PORT. USE THE HOLE IN THE SHEET METAL SIDE AS A GUIDE. USE A 2 INCH HOLE SAW AND DRILL A 2 INCH HOLE IN THE SIDE BRICK. IF YOU DO NOT HAVE A LARGE ENOUGH SAW DRAW A 2 INCH DIAMETER ON THE SIDE BRICK. USE A SMALLER DRILL AND THEN FILE OUT THE HOLE TO 2 INCH DIAMETER. MOUNT THE BUNSEN PILOT AND BRACKET ON THE SIDE OF THE FURNACE. PUT CEMENT AROUND THE OUTSIDE OF THE PILOT PORT. INSERT THE PORT, FROM INSIDE THE FURNACE, UP AGAINST THE BUNSEN PILOT. SMALL HOLE IS AGAINST THE PILOT. USE A ROD OR DOWEL PIN TO LINE UP THE HOLES IN THE PORT AND THE PILOT. THE PORT MUST BE TIGHT AGAINST THE PILOT.



-INSTRUCTIONS-

- 1) DRILL 2" DIA. HOLE THRU SIDE OF FURNACE & SIDE BRICK.
- 2) PUSH PILOT PORT INTO 2" HOLE.
- 3) HOLD BUNSEN BRNER & BRACKET AGAINST SIDE OF FURNACE. INSERT DOWEL PIN THROUGH PORT INTO BUNSEN BURNER FOR DROPER ALINGNMENT. MARK THE TWO HOLE LOCATIONS FOR MOUNTING THE BRACKET.
- 4) DRIL 13/64 & TAP 1/4-20 NF, TWO BRACKET HOLES.
- 5) MOUNT THE BRACKET.



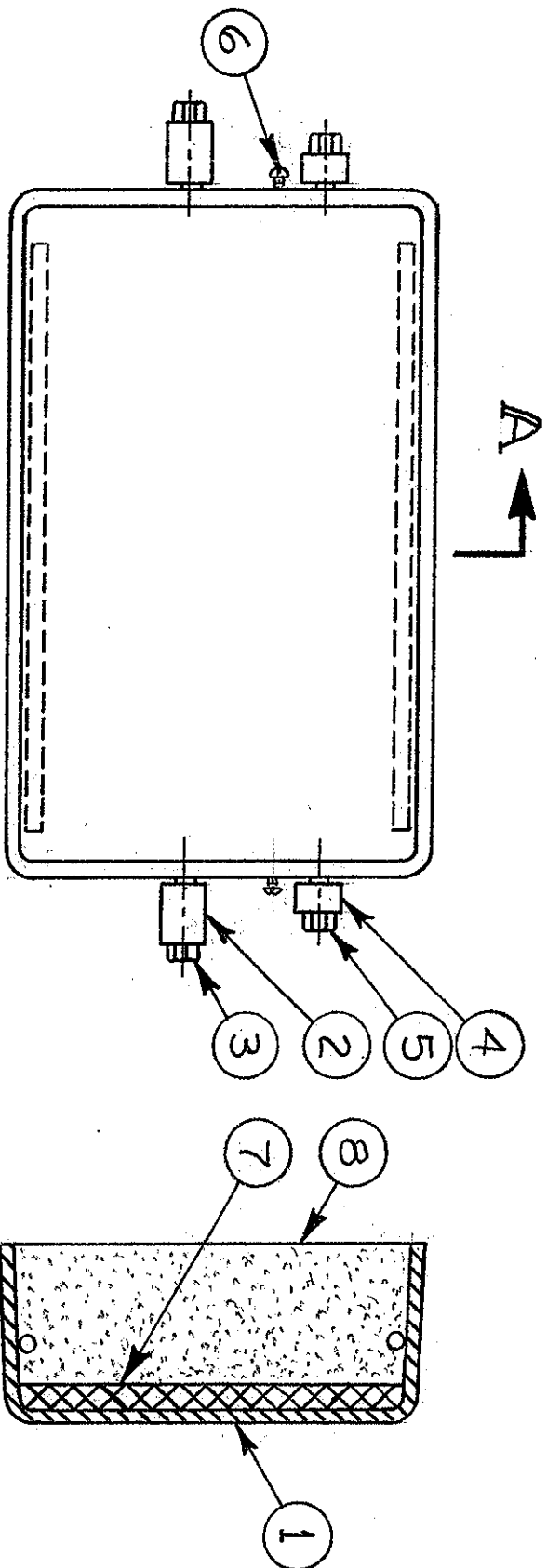
- 6) REMOVE THE PILOT PORT & PLACE CEMENT AROUND THE OTSIDE OF THE PILOT PORT INSERT THE PORT THROUGH THE OPENING FROM THE ISIDE & UP AGAINST THE BUNSEN.
- NOTE:** TO WORK PROPERLY THE BUNSEN BURNER MUST BE CENTERED ON THE PORT OPENING & UP AGAINST THE PORT.

NOTE:

ITEMS 2,3,4,5,6, & 7 MUST BE IN PLACE BEFORE POURING

ITEM 8

ITEM	PART No.	QTY	DESCRIPTION
1	A-142-CN	1	DOOR WELDMENT (4-ROLLER)
2	A-125-1	2	DOOR ROLLER (1-1/4 LONG)
3	A-125-18	2	DOOR ROLLER BOLT (1-5/8 LONG)
4	A-125-17	2	DOOR ROLLER (5/8 LONG)
5	A-125-19	2	DOOR ROLLER BOLT (1 LONG)
6	601-9-13	2	1/4-20x 5/8 RD. HEAD M.S.
7	311	1	BACK-UP BLOCK
8	310	~	STEEL PLANT 'B' CASTABLE



SECTION A-A

PART NAME DOOR ASSEMBLY (4-ROLLER)

MAT'L.

BLANK SIZE

USED ON A-142-CD, A-142-CE, A-142-CF, A-142-CG, A-147-K, A-147-L, A-147-M, A-147N, A-148Y, A-148-Z, A-148-AB, A-148-AC, A-148-AG, A-148-AH

NO. REQ'D. - 1

SCALE - 1/4" = 1"

JOHNSON GAS APPLIANCE CO.
CEDAR RAPIDS, IOWA 52405

DWN. BY - VB

APPR. BY -

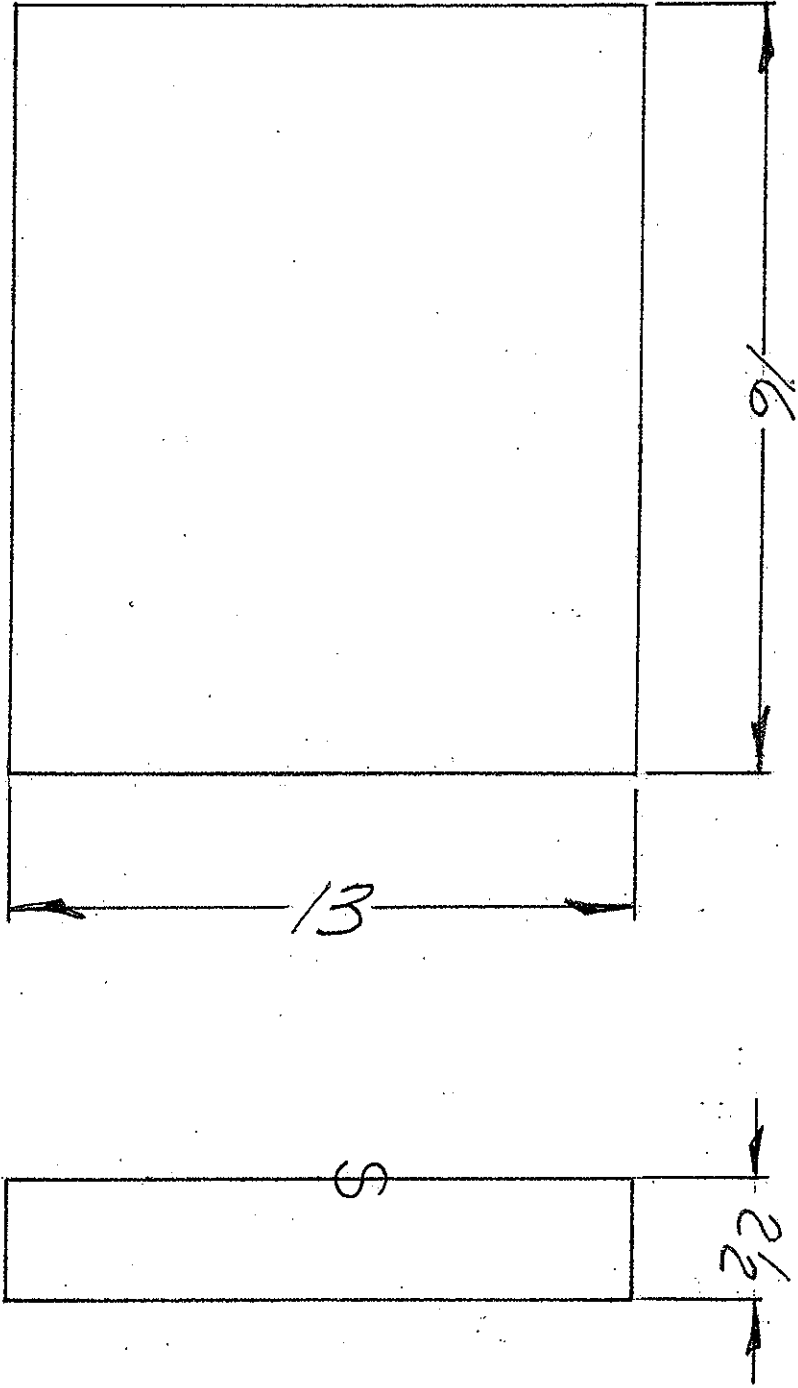
DATE 10-19-82

A-142-CP

NOTE -

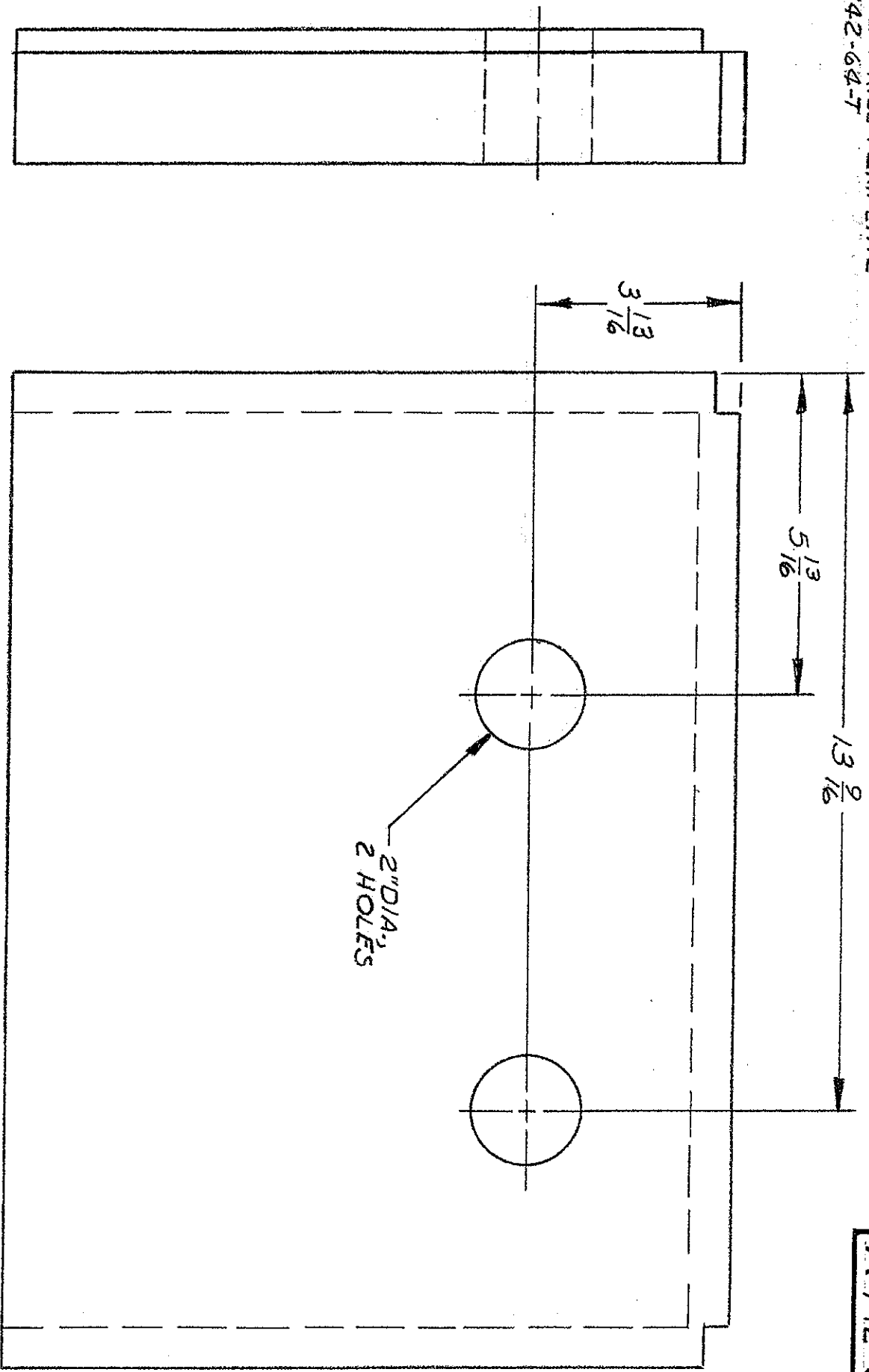
"S" DENOTES SURFACE VISIBLE TO CUSTOMER
WHEEL BRICK 1/5 IN USE.

A-142-23



PART NAME		BRICK # 6 - BOTTOM	
MAT'L.			
BLANK SIZE		USED ON B-142-CL, B-149-3, B-125-G, B-134-A	
NO. REQ'D. -		12	
SCALE -		1/2	
JOHNSON GAS APPLIANCE CO. CEDAR RAPIDS, IOWA 52405		DWN. BY - RAH	
DATE		9-1-75	
APPR. BY -			
A-142-23			

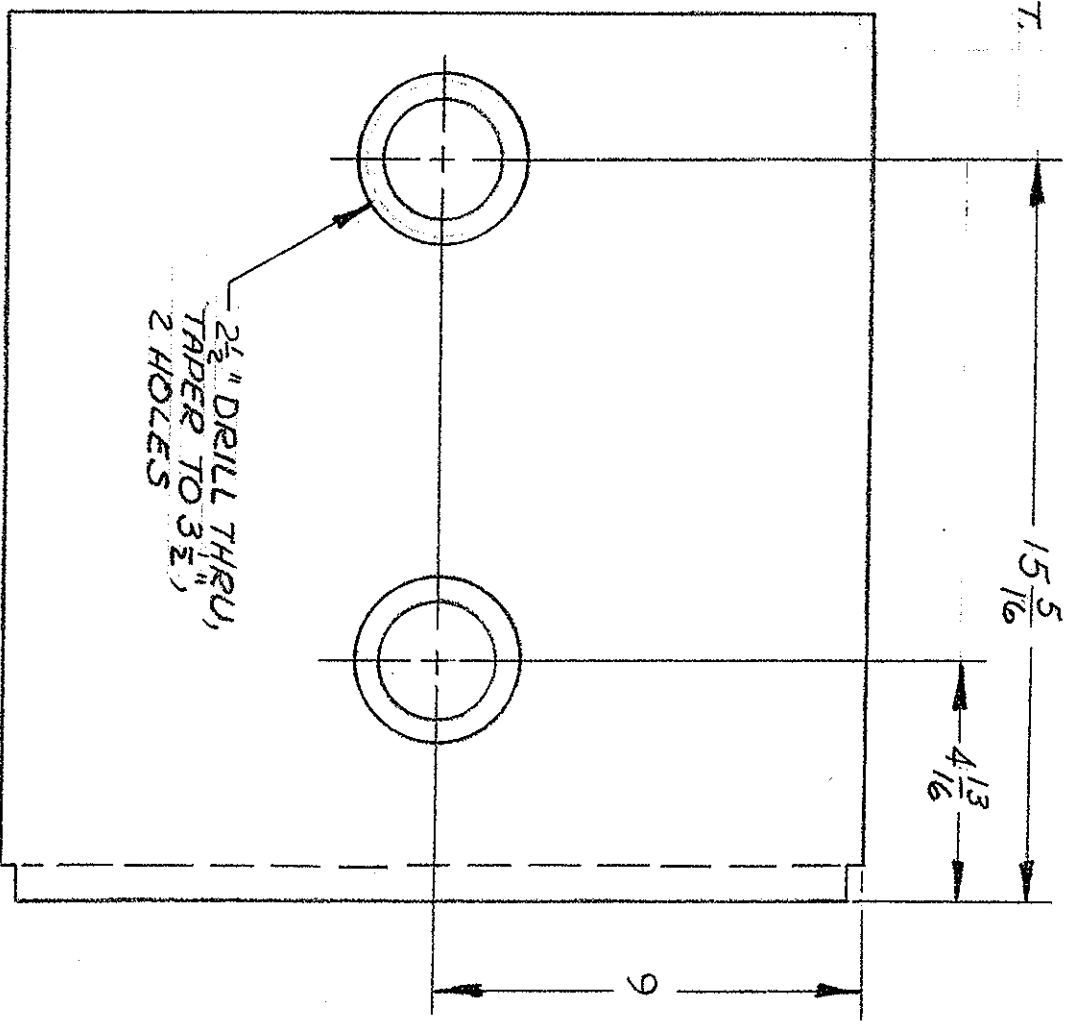
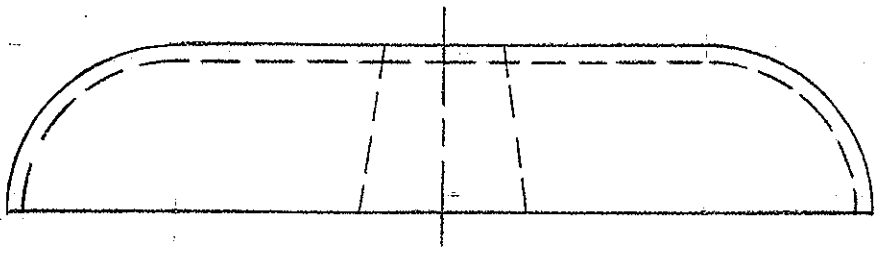
NOTE:
USE DRILL TEMPLATE
#142-64-T



A-142-64

Mat'l	B-142-21	Title	#142 SIDE BRICK - LEFT SIDE	
JOHNSON GAS APPLIANCE COMPANY CEDAR RAPIDS, IOWA				
Dwn.	ABD	Scale	3/8	
Appr.		Date	2-22-66	
Used On	B-142-30			
A-142-64				

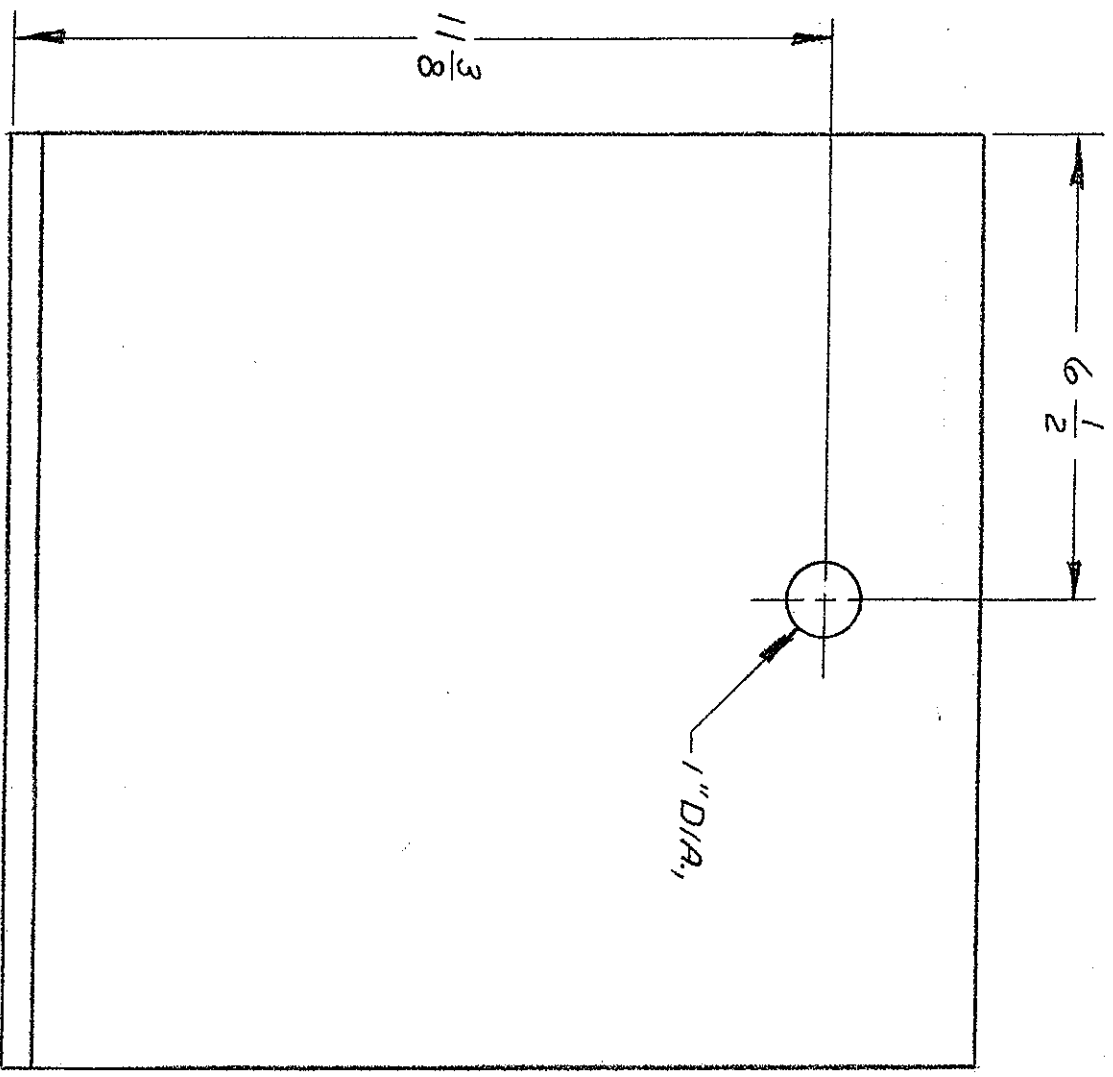
NOTE:
USE DRILL TEMPLATE #142-65-T.



A-142-65

Mat'l	A-142-20	Title	#142 TOP BRICK - MACHINED	
JOHNSON GAS APPLIANCE COMPANY CEDAR RAPIDS, IOWA				
Dwn.	CRD	Appr.	Date	Scale
				1/4
Used On — B-142-50, B-143-6, B-144-17				A-142-65
				2-23-66

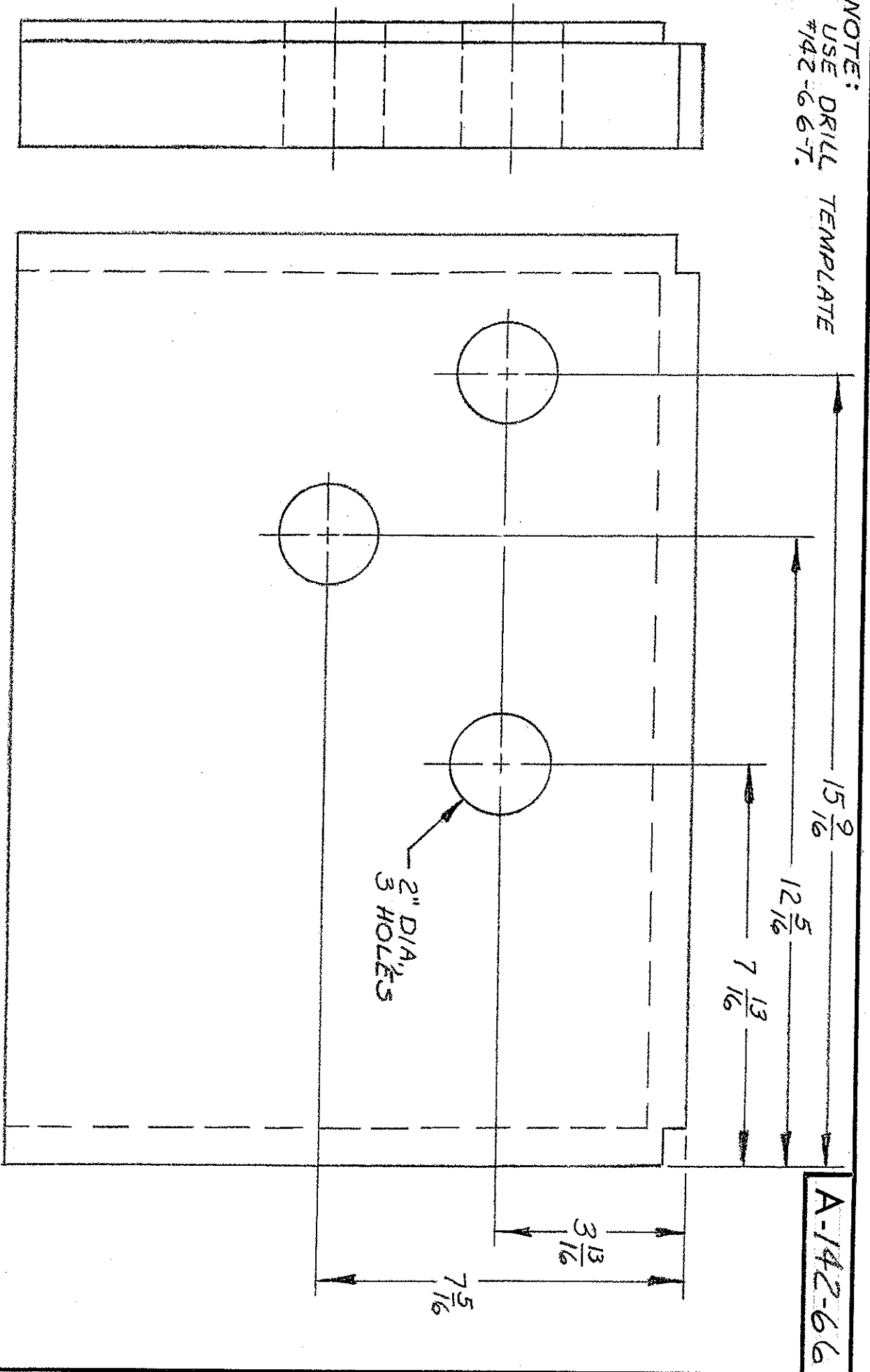
A-142-67



NOTE: USE DRILL TEMPLATE #142-67-T

Mat'l	B-142-22	Title	#142 BACK BRICK-MACHINED	
JOHNSON GAS APPLIANCE COMPANY CEDAR RAPIDS, IOWA				
Used On	-B-142-30, B-143-6, B-144-17, B145-F		Dwn.	ABD
			CR'D	
			Appr.	
			Date	4-22-66
	A-142-67		Scale	3/8

NOTE:
USE DRILL TEMPLATE
#142-66-T.



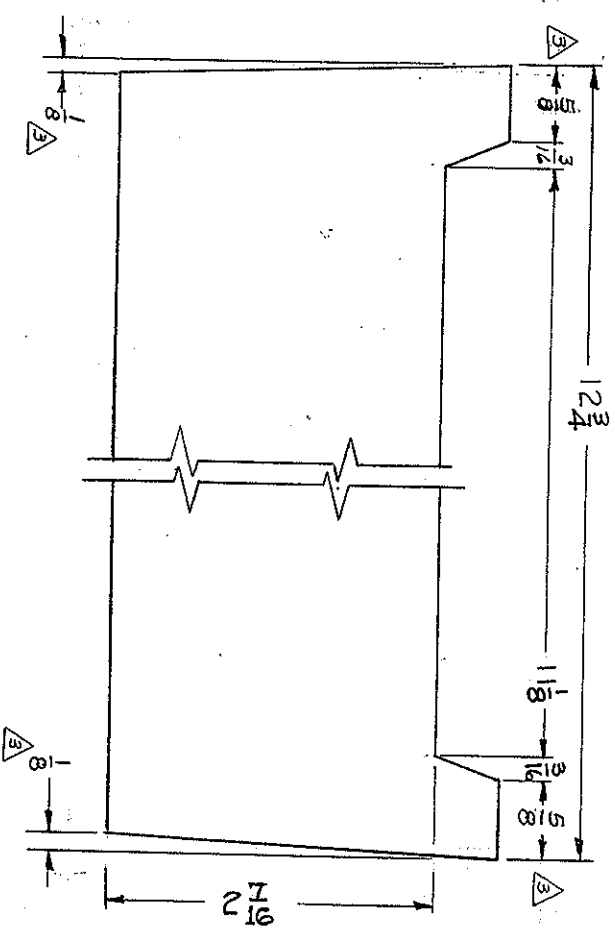
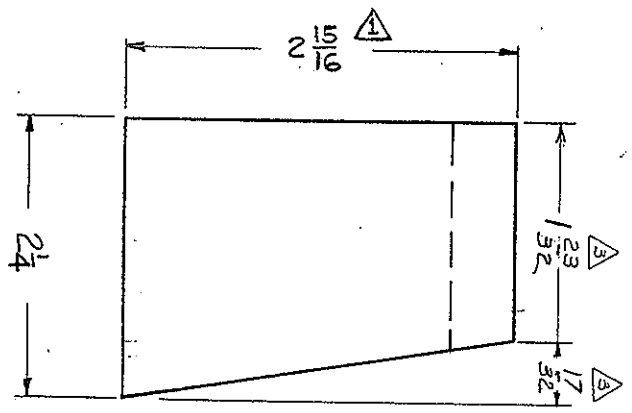
A-142-66

Mat'l	B-142-21	Title	#142 SIDE BRICK - RIGHT SIDE w/ PILOT
JOHNSON GAS APPLIANCE COMPANY CEDAR RAPIDS, IOWA			
Dwn.	MSB	Scale	$\frac{5}{8}$
CK'D			
Appr.			
Date	2-22-66		

Used On - B-142-30

A-142-66

B-142-13

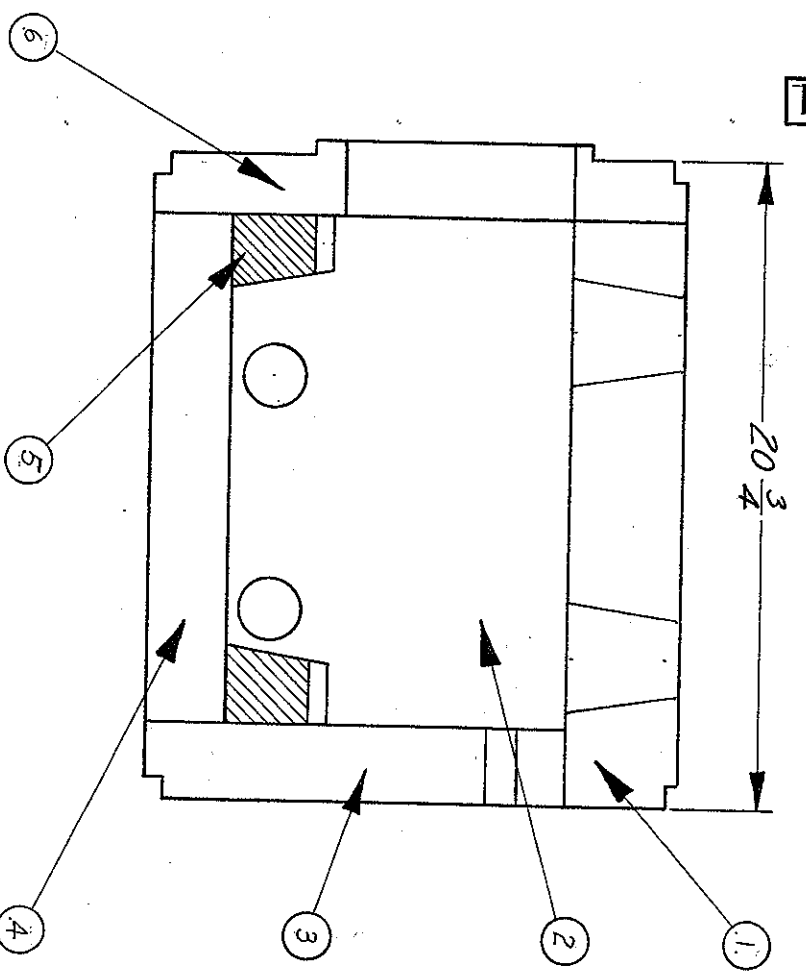
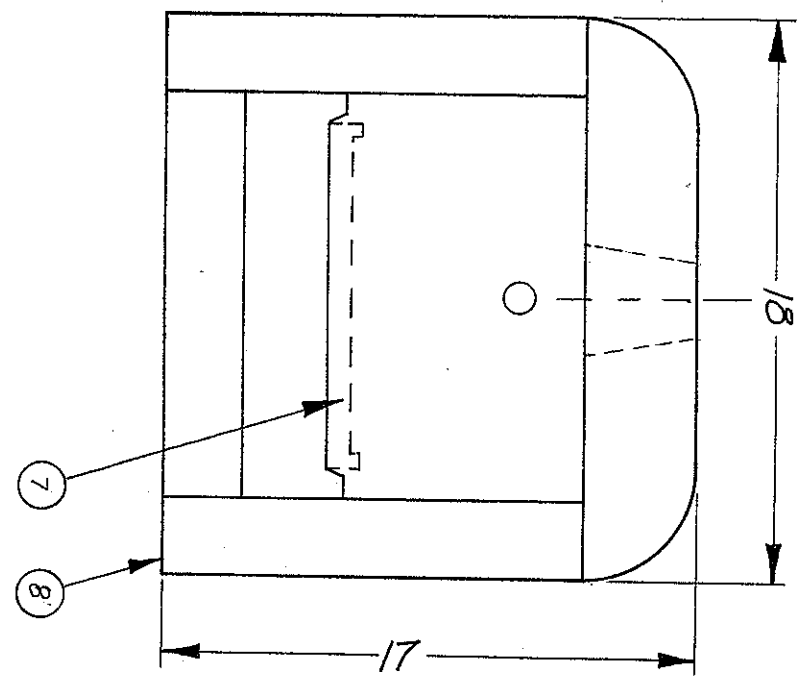


REVISIED IN ACCORD WITH E.C.O. # 267-8-6-68-08
 1-32 WAS 1-32 - 1-32 WAS 1-32 - 5-8 WAS 9-16
 ADDED 1/8 DIMS.

Rev. For New Forms - 9/9/55 - RBW
 Rev. 2-15-56 was 3/8 - 2-7-52 LEL.
 Rev. 2-15-56 was 2 5/8 - 2-7-52 LEL.

Mat'l	3000° CAST	Title	HEARTH REST
JOHNSON GAS APPLIANCE COMPANY CEDAR RAPIDS, IOWA			
Drawn	MCM	Scale	FULL
CK'd			
Appr.			
Date	1-17-51		
Used On	B-142-CL, B-149-3, B-125-5, B-134-A		
			B-142-13

B-142-BZ



18	A-142-63	1	Side Brick-Right
	A-142-66	1	Side Brick-Right w/pilot
7	B-142-44	1	Hearth
6	B-142-CL	1	Front Frame Brick Assy
5	B-142-13	2	Hearth Rest
4	B-142-23	1	Bottom Brick
3	A-142-67	1	Back Brick
2	A-142-64	1	Side Brick - Left
1	A-142-65	1	Top Brick
Sym	Part No.	Qty.	Part Name

C	B-142-CL WAS B-142-32	12-7-79
B	B-142-BZ WAS B-142-30	4-30-76
A	A-142-67 WAS B-142-26 A-142-65 WAS B-142-65 B-142-20, A-142-64 QTY 1 A-142-63 WAS B-142-64 A-142-63 WAS B-142-64	4-30-76

Model	As Spec	Title	LINING ASSY
JOHNSON GAS APPLIANCE COMPANY CEDAR RAPIDS, IOWA			
Used On	C-142-CA	Dwn.	Win 50r
Date	5/20/55	Appr.	Scale
			1/4
			B-142-BZ

A