

NOTES:

1. USE 24 GA GALV. SHEET METAL FOR VANES AND VENTURI. CLEAN WITH VINEGAR AND DETERGENT. PRIME WITH GALV. PRIMER AND PAINT FLAT BLACK. PAINT INTERIOR OF LIGHT TRAP FLAT BLACK.

2. PERFORMANCE DATA:

- A. LIGHT REDUCTION: 25,000 TO 1
- B. PRESSURE DROP (ΔP , INCHES WATER GAUGE) FOR AIR VELOCITY (V , FT/MIN) THROUGH LIGHT TRAP:

$$\Delta P = 1.63 \left[\frac{V}{4005} \right]^2$$

C. VENTURI INCREASES FAN DISCHARGE BY 7 TO 11%.

VANES SPACED 5/8" APART FOR ALL FAN DIAMETERS

24 GA SHEET METAL INLET VENTURI

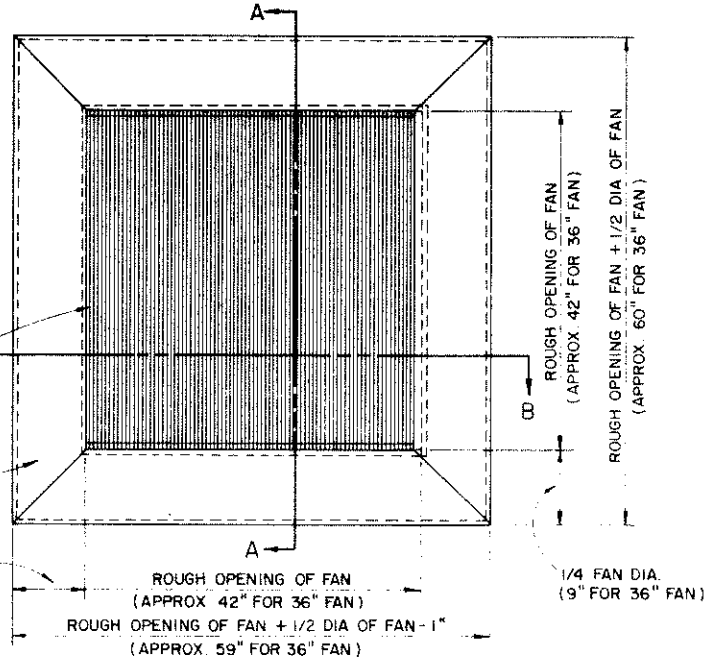
1/4 FAN DIA. (9" FOR 36" FAN)

ROUGH OPENING OF FAN (APPROX. 42" FOR 36" FAN)

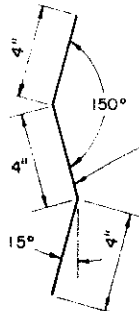
1/4 FAN DIA. (9" FOR 36" FAN)

ROUGH OPENING OF FAN + 1/2 DIA OF FAN - 1" (APPROX. 59" FOR 36" FAN)

1/2" x 1/2" x 1/8" ANGLE IRON FRAME ALL AROUND VENTURI, POP RIVETED

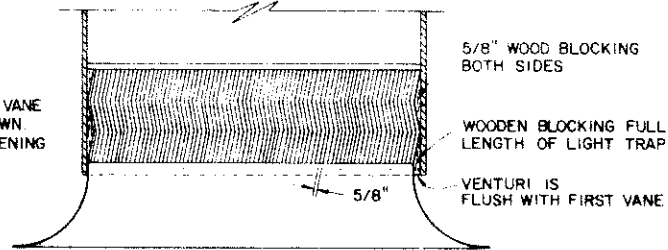


FRONT VIEW

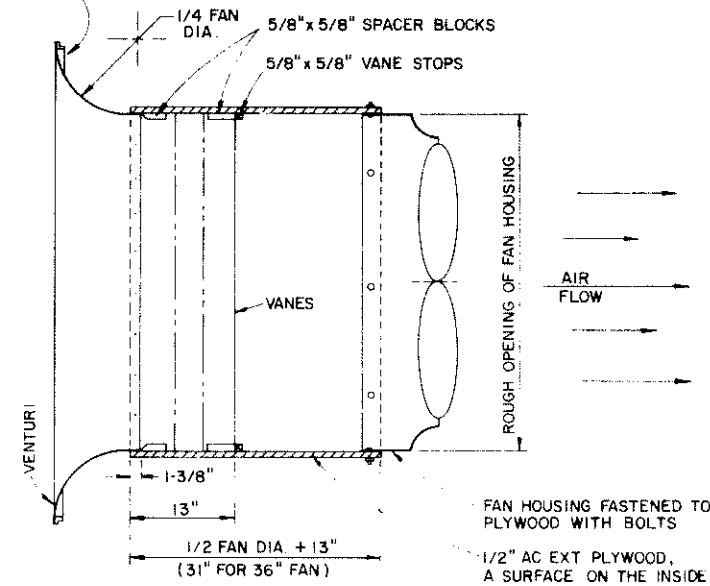


Z VANE DETAIL

NOT TO SCALE



SECTION B-B

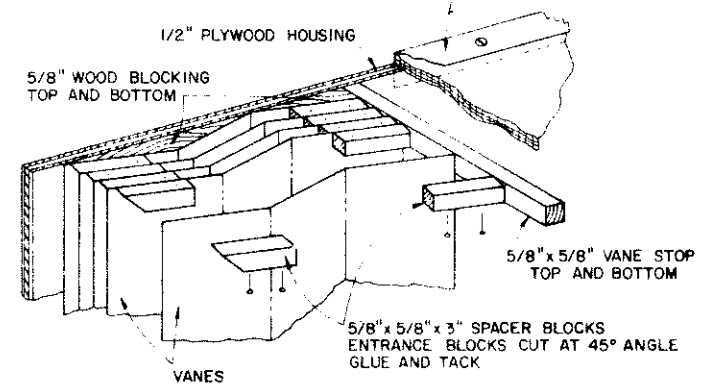


SECTION A-A

FAN HOUSING FASTENED TO PLYWOOD WITH BOLTS

1/2" AC EXT PLYWOOD, A SURFACE ON THE INSIDE

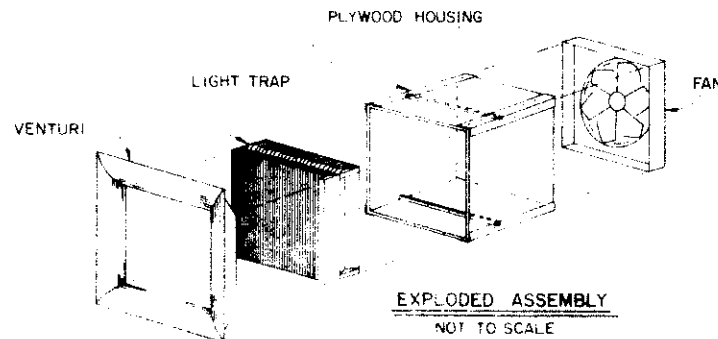
24 GA SHEET METAL CORNER EDGING FASTENED WITH WOOD SCREWS



VANE ASSEMBLY

NOT TO SCALE

LIST OF MATERIALS FOR A 36" FAN		
QUANTITY	ITEM	MATERIAL
4	HOUSING	PLYWOOD, 1/2" AC EXT., 31" x 43"
65	VANES	SHEET METAL, 24 GA GALV, 12" x 42"
4	VENTURI	SHEET METAL, 24 GA GALV, 14" x 60"
4	CORNERS	SHEET METAL, 24 GA GALV, 3" x 31"
4	STIFFENER	ANGLE IRON, 1/2" x 1/2" x 1/8" x 60"
	BLOCKING	PINE
1	BLOCKING	PINE, 1" x 6" x 42"
	FASTENERS	SCREWS, NAILS, BOLTS & NUTS, RIVETS, GLUE
	PAINT	FLAT BLACK



EXPLODED ASSEMBLY

NOT TO SCALE

COOPERATIVE EXTENSION SERVICE
 AGRICULTURE AND HOME ECONOMICS

AND
 UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

**LIGHT TRAP
 FOR MECHANICAL VENTILATION**

N.C. '84	6367	SHEET 1 OF 1
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