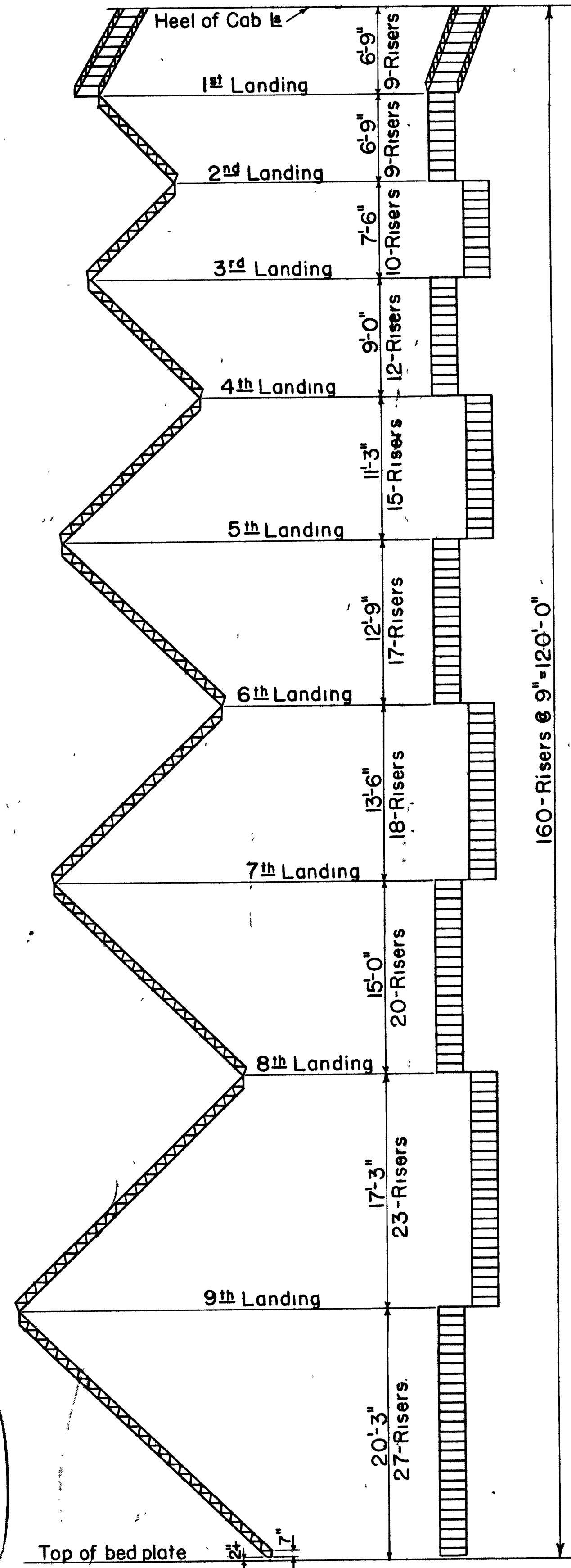
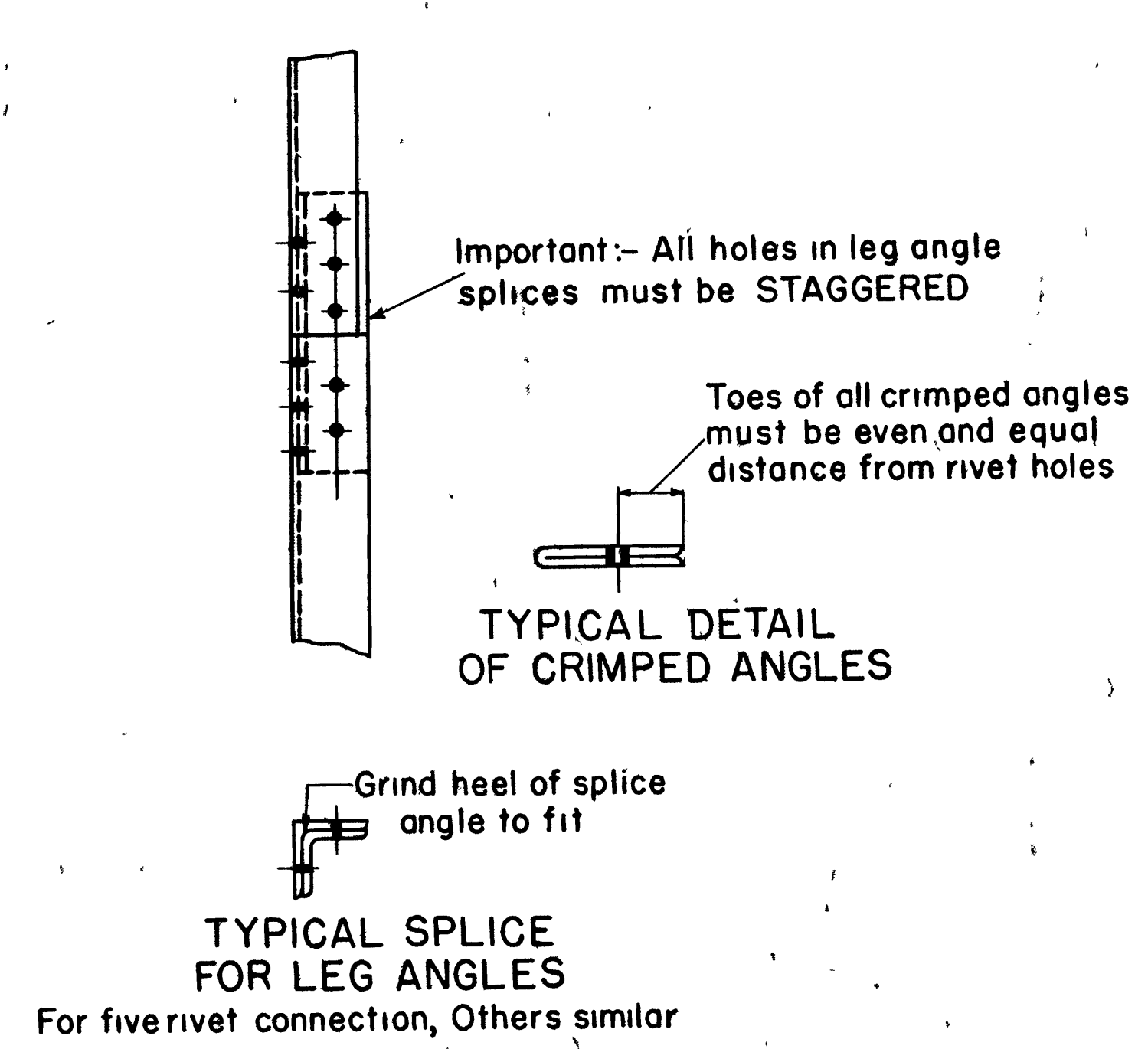


**BASE DIMENSIONS**

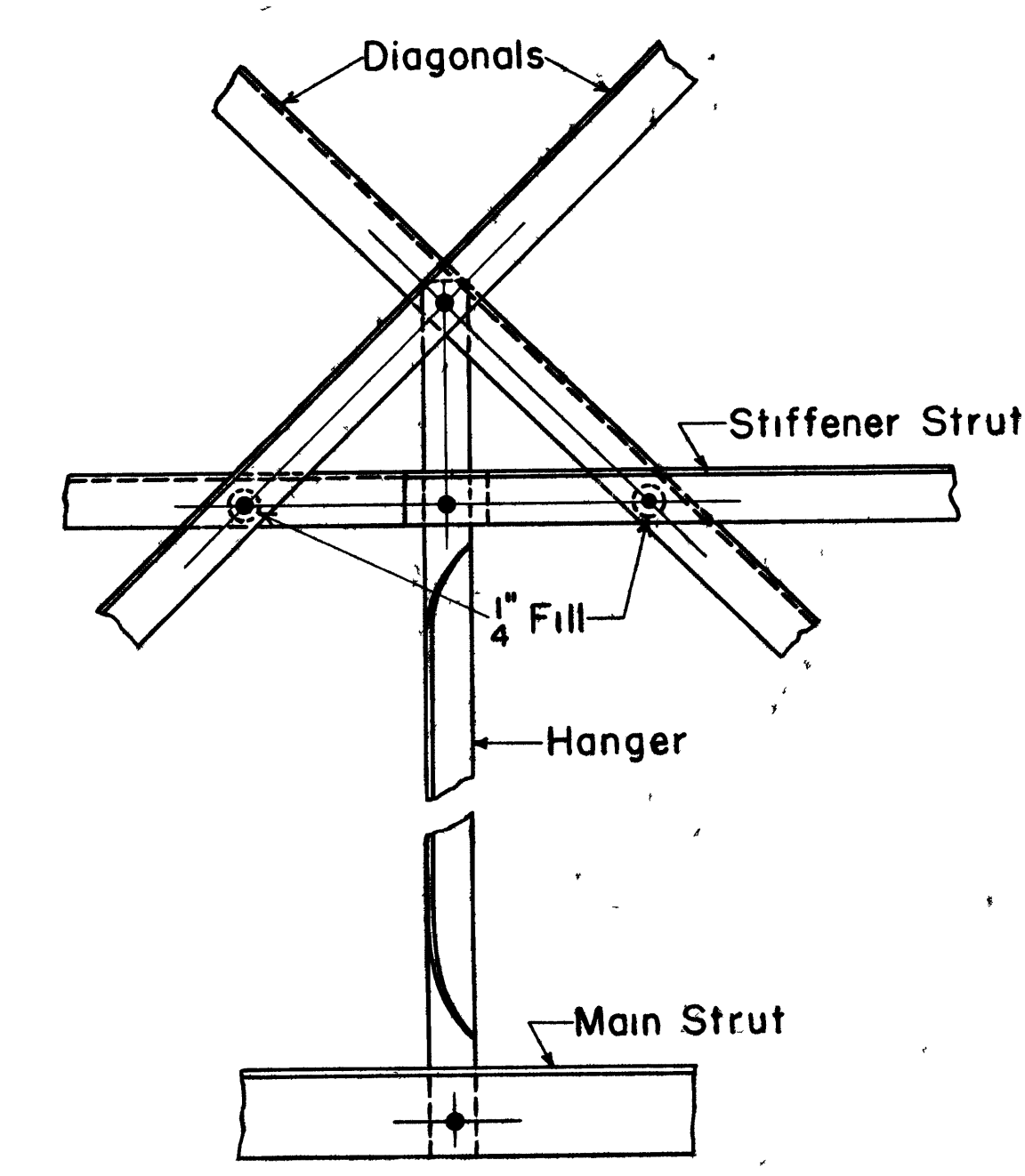
Tower Height	b b of Leg L
At Cab	7'-0"
30'-0"	11'-6 3/8"
41'-3"	13'-2 3/4"
54'-0"	15'-1 1/8"
67'-6"	17'-2 3/16"
82'-6"	19'-5 1/4"
99'-9"	22'-0 3/4"
120'-0"	25'-1 1/8"



STAIR ELEVATION  
Handrails not shown



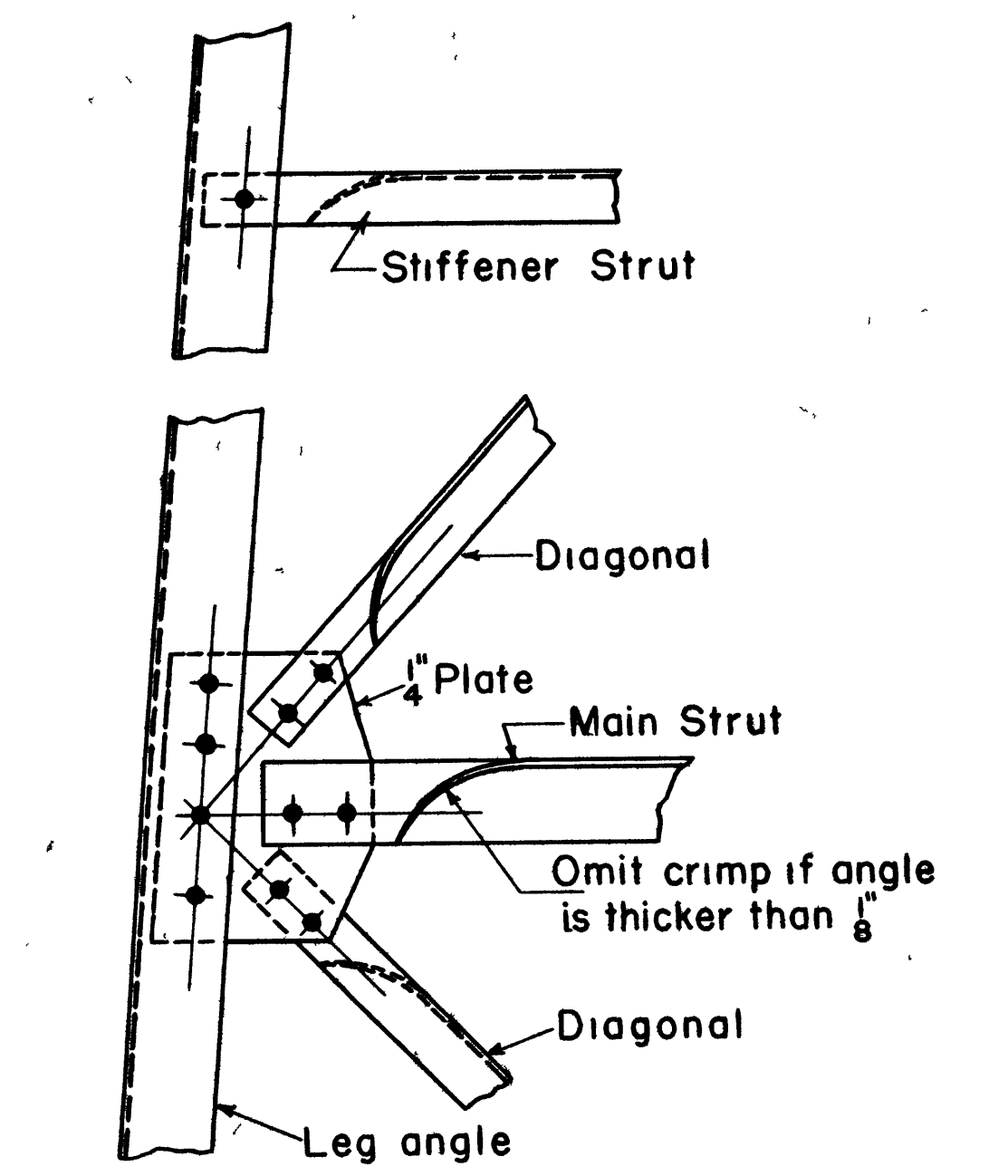
TYPICAL SPLICE FOR LEG ANGLES  
For five rivet connection, Others similar



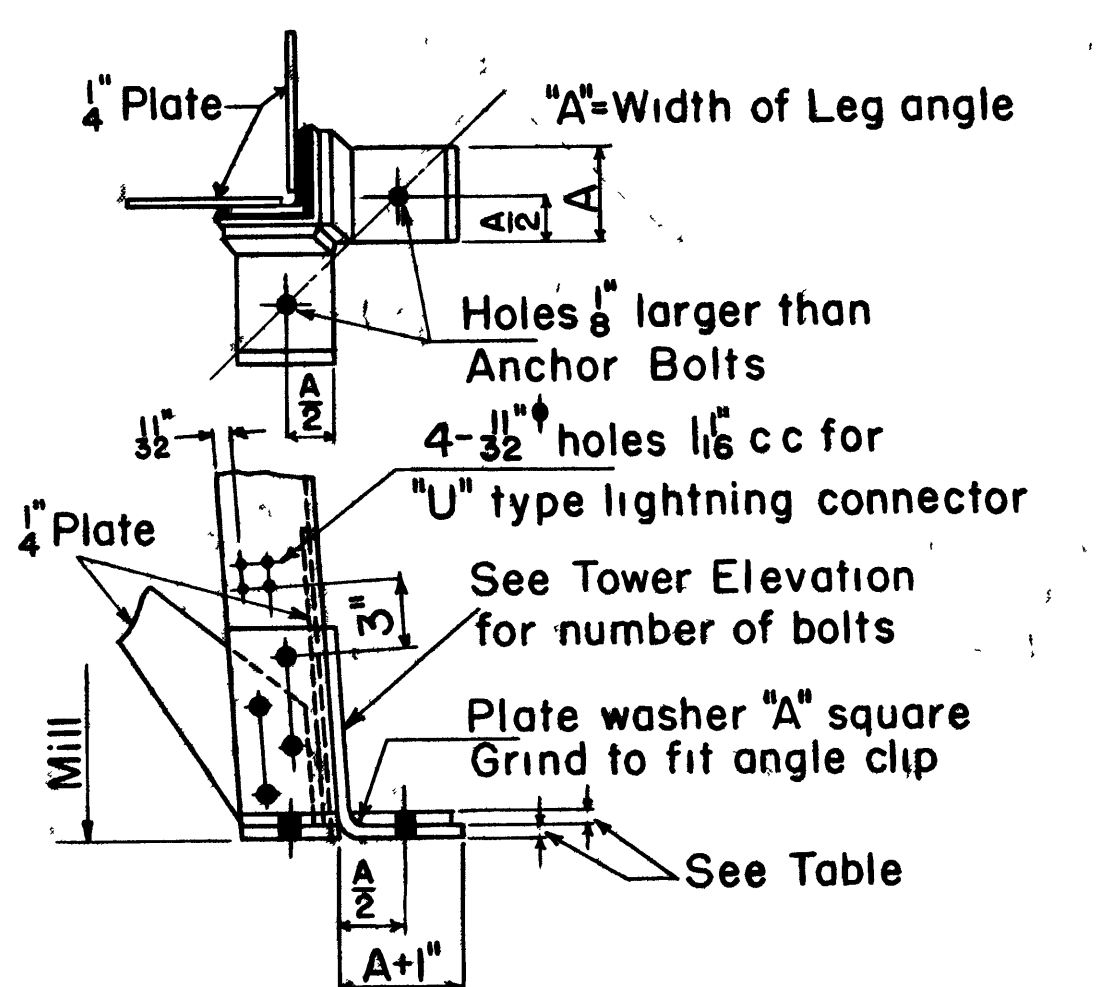
TYPICAL CONNECTION OF DIAGONALS, MAIN STRUTS, STIFFENERS & HANGERS.

**THICKNESS OF BASE CONNECTIONS**

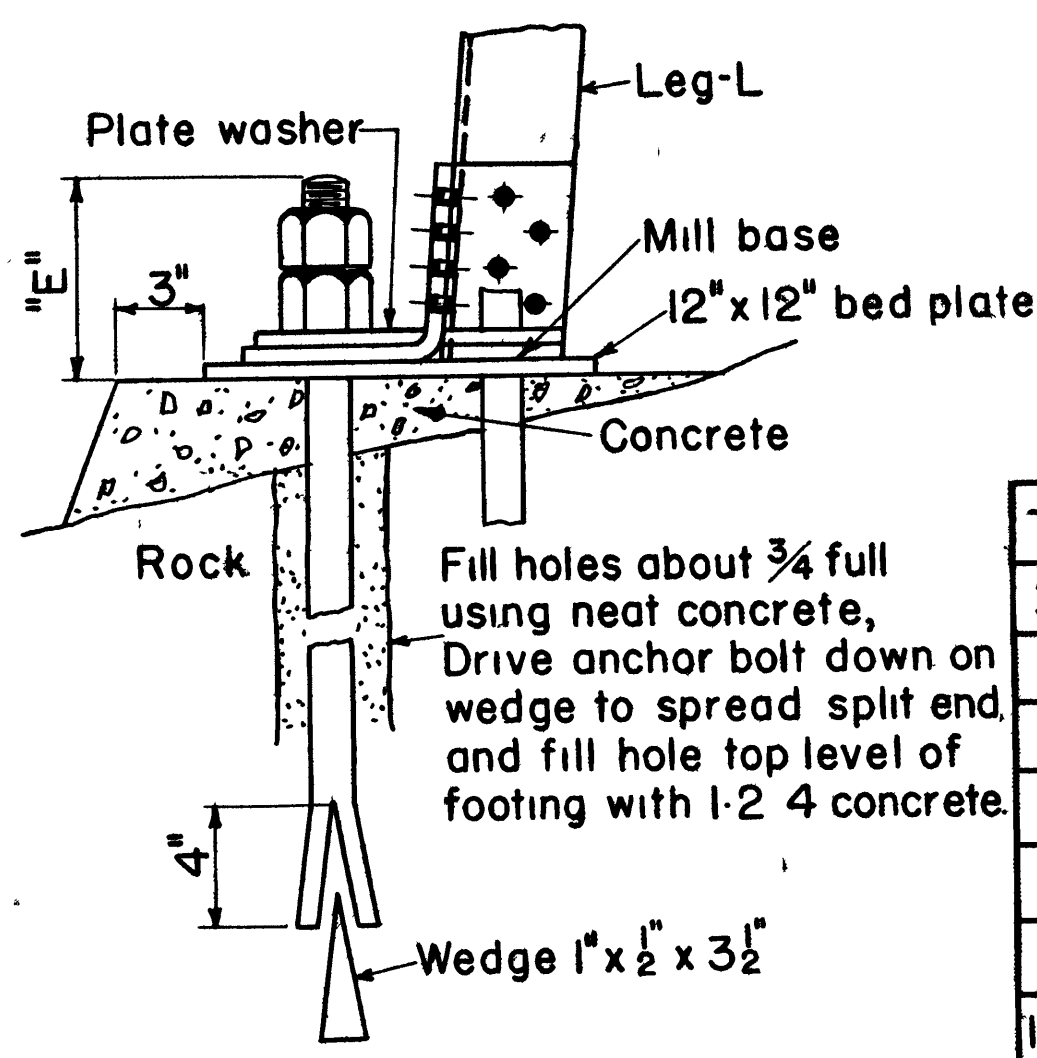
Ht. of Tower	Angle Clip	Pl. Washer	Bed Plate
30'-0"	1/2"	1/2"	12" x 1 1/2" x 1'-0"
41'-3"	5/8"	1/2"	12" x 1 1/2" x 1'-0"
54'-0"	5/8"	5/8"	12" x 1 1/2" x 1'-0"
67'-6"	3/4"	5/8"	12" x 1 1/2" x 1'-0"
82'-6"	3/4"	5/8"	12" x 1 1/2" x 1'-0"
99'-9"	7/8"	3/4"	12" x 5/8" x 1'-0"
120'-0"	7/8"	3/4"	12" x 3/4" x 1'-0"



DIAGONAL AND STRUT CONNECTIONS TO LEG ANGLE  
For two rivet connection, Others similar



TYPICAL DETAIL OF BASE



ANCHOR BOLTS IN ROCK  
For anchor bolts in concrete see R-7 dwg no. L-1406-A

**ANCHOR BOLTS IN ROCK FOUNDATION**

Tower	Bolts	Wt.lbs	E.
30'-0"	3/4" x 4'-6"	55	3 3/4"
41'-3"	3/4" x 4'-6"	58	4"
54'-0"	7/8" x 5'-2"	82	4 1/2"
67'-6"	1" x 6'-0"	119	5"
82'-6"	1" x 6'-0"	127	5"
99'-9"	1 1/8" x 6'-9"	196	5 3/4"
120'-0"	1 1/4" x 7'-3"	242	6 1/4"

8-Bolts required for all tower heights

**STRUCTURAL CONNECTIONS**

Angle size	Rivet or Bolt size	Min Pitch	Edge dist Sheared	Edge dist Rolled or Planed
2 1/2" or more	3/4"	2 1/2"	1 1/4"	1 1/8"
2" & 2 1/4"	5/8"	2 1/4"	1 1/8"	7/8"
1 3/4"	1/2"	1 3/4"	1"	3/4"
1 1/2"	3/8"	1 1/2"	7/8"	5/8"

APPROXIMATE WEIGHT OF STRUCTURAL STEEL AND METAL ACCESSORIES  
ANCHOR BOLTS NOT INCLUDED

Tower Height	Type of Cab Standard	Platform
30'-0"	5600 lbs	6000 lbs
41'-3"	7100 "	7500 "
54'-0"	9000 "	9400 "
67'-6"	11150 "	11550 "
82'-6"	13900 "	14300 "
99'-9"	17550 "	17950 "
120'-0"	22500 "	22900 "

FEDERAL SPECIFICATIONS  
Structural Steel, QQ-S-711, Class-A non-copper.  
Rivet Steel, QQ-S-711, Class-C non-copper.  
Anchor Bolts, QQ-B-71, Grade-I, Class-A, Type-A

Rev. Feb 17-1940 A.H.B. Holes for Lightning Connector

**U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE**

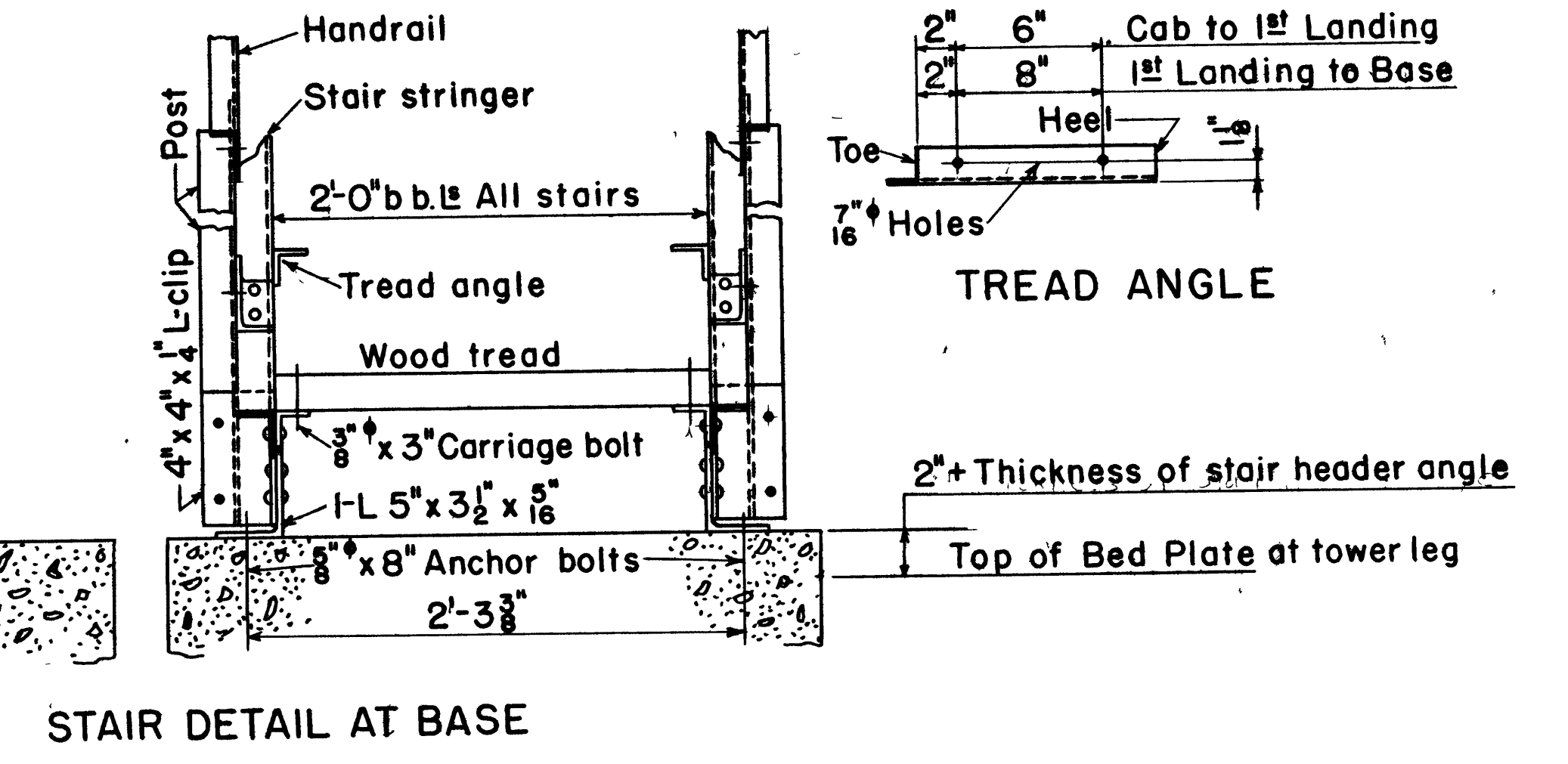
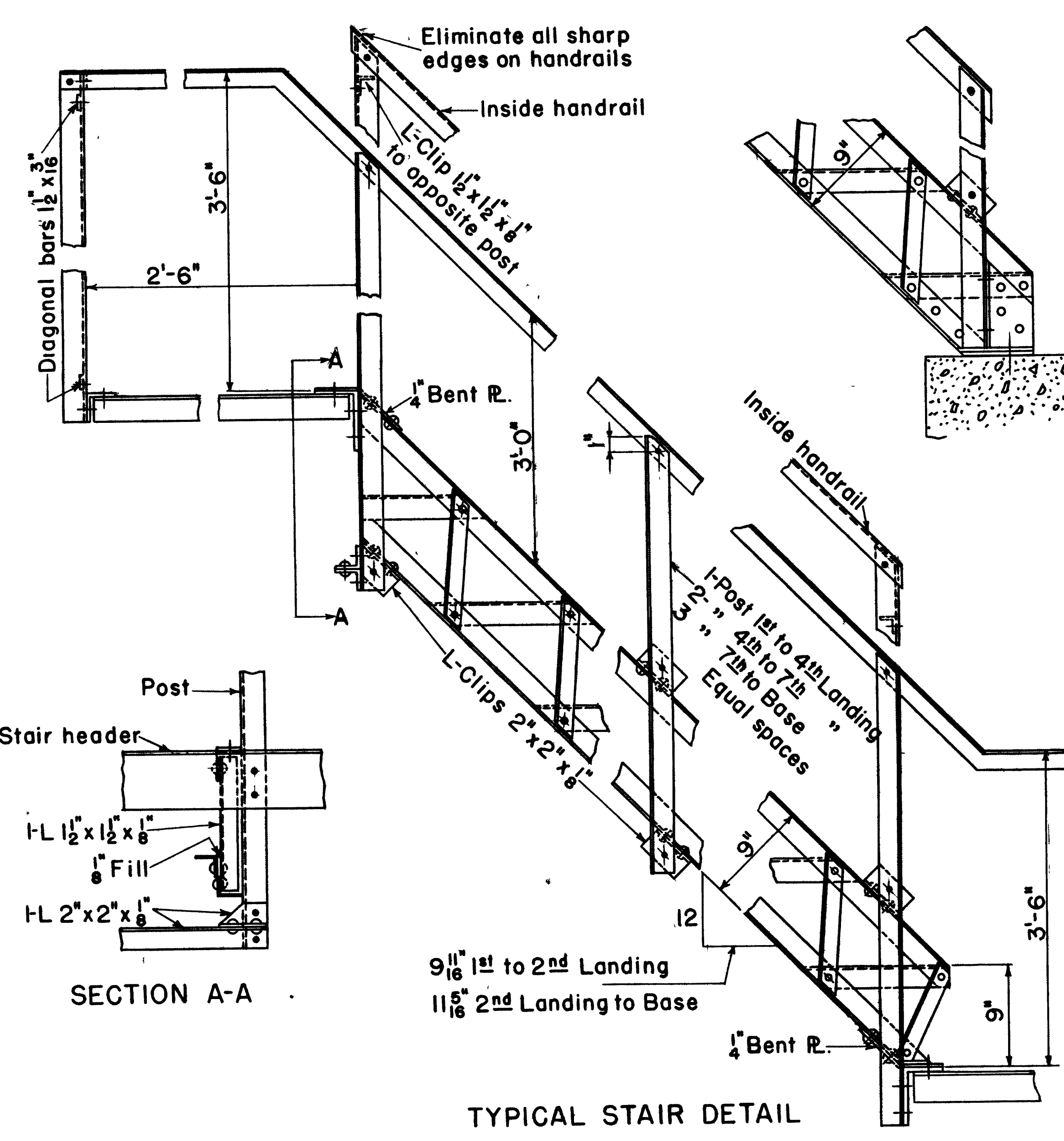
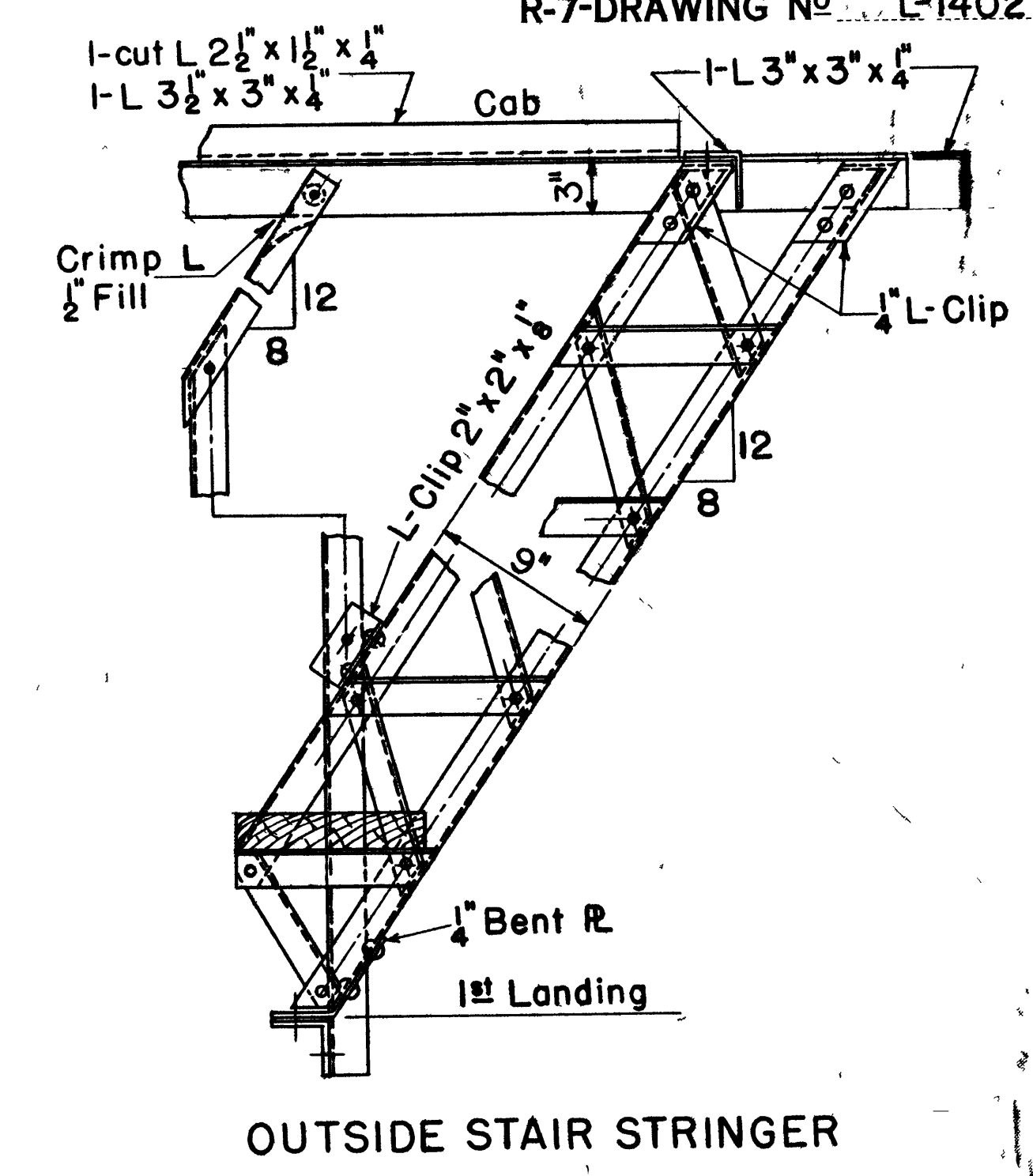
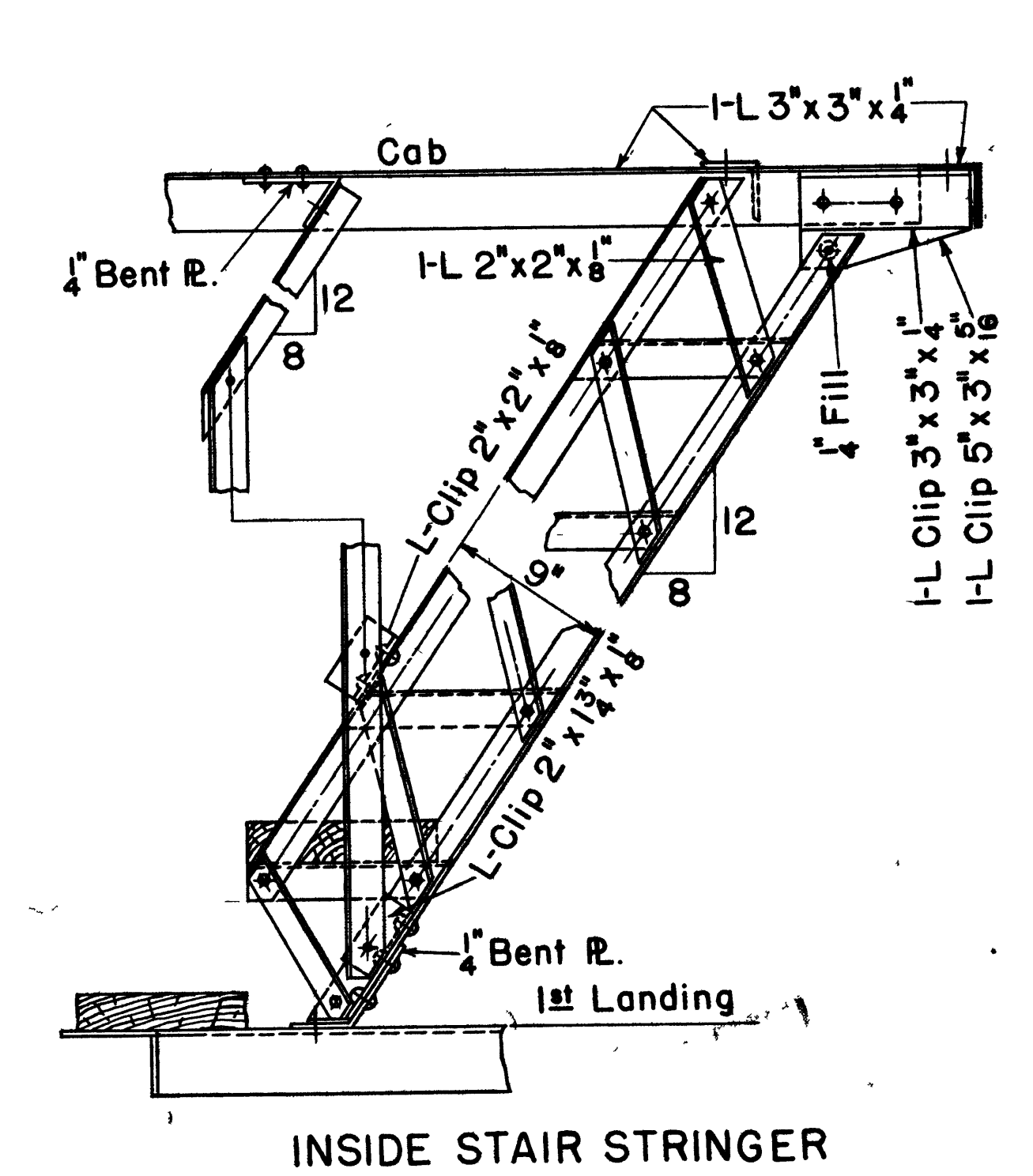
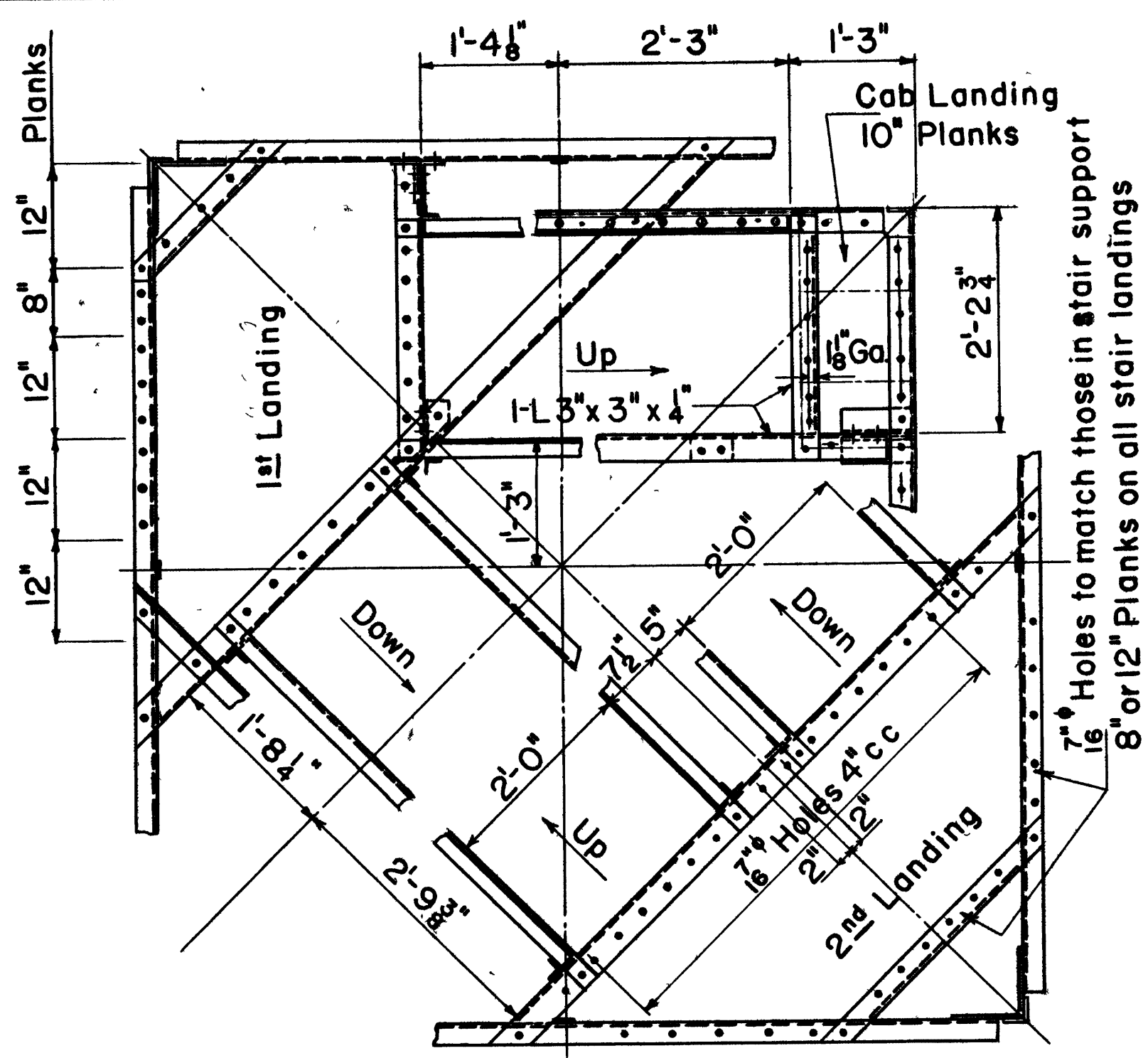
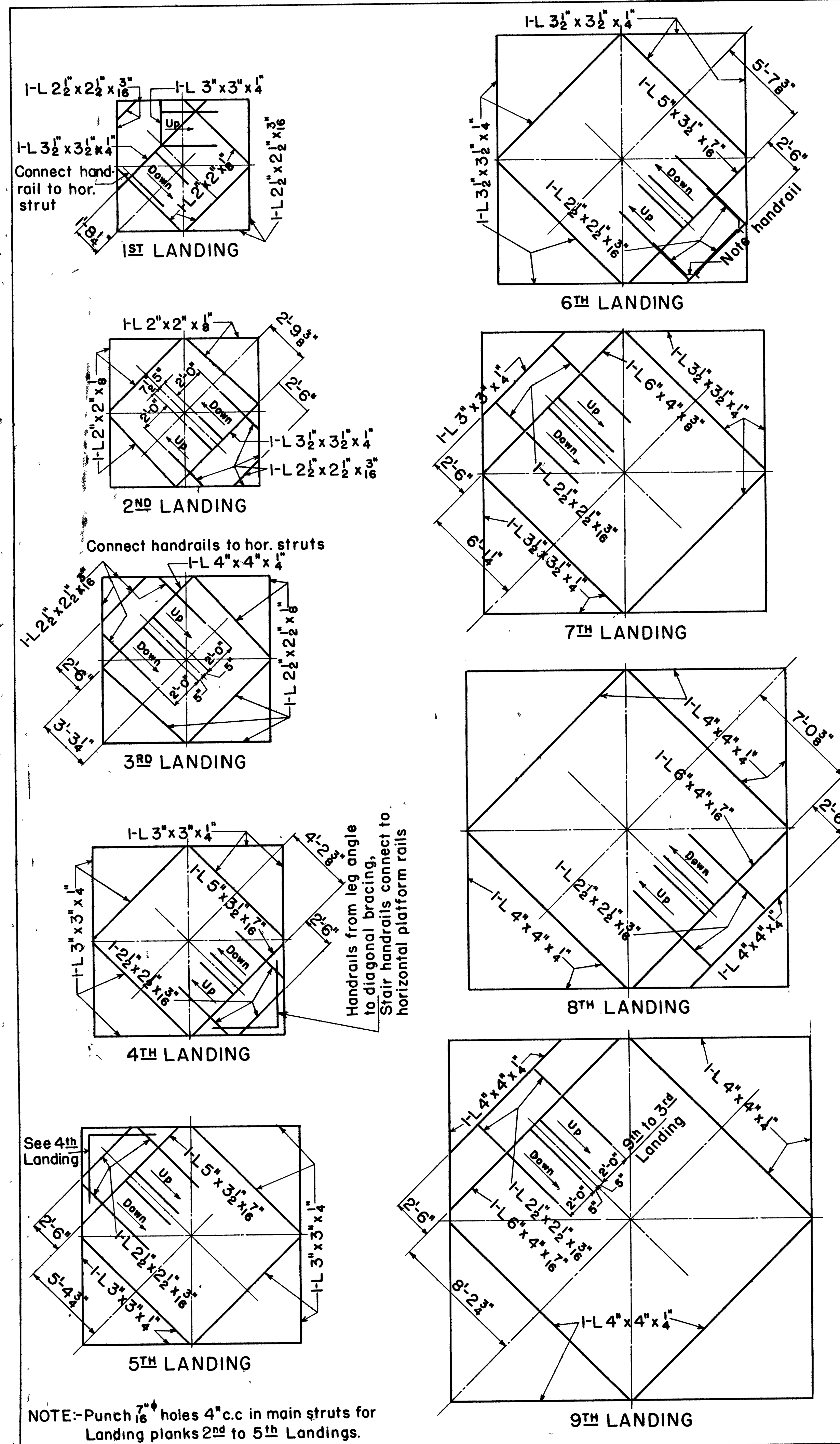
REGION SEVEN J.C. DORT REGIONAL ENGINEER

**STANDARD STEEL LOOKOUT TOWERS**  
30' 41'-3" 54' 67'-6" 82'-6" 99'-9" & 120' HIGH  
CAB SEVEN FEET SQUARE

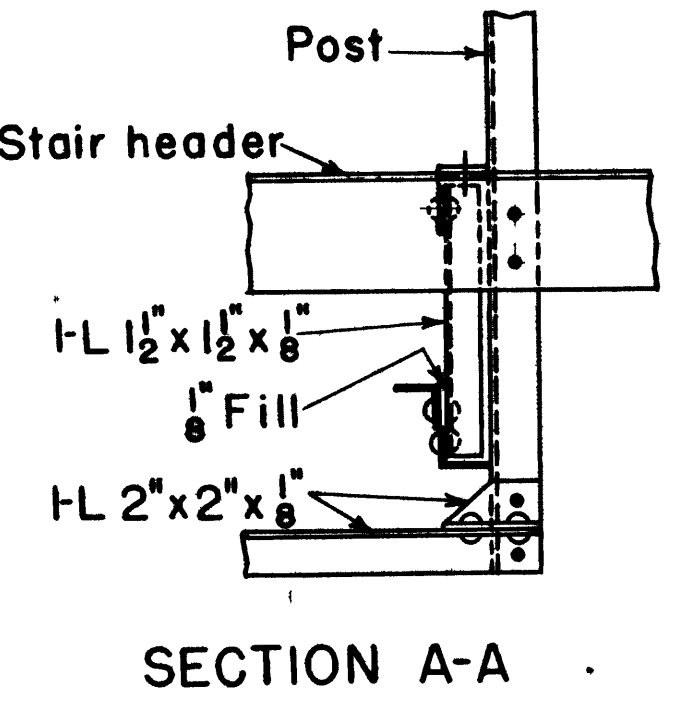
ELEVATION AND TYPICAL CONNECTIONS

DESIGNED R.E.P., D.B. DRAWN A.H.B.  
CHECKED E.G.M. TRACED A.H.B.  
RECOMMENDED FOR APPROVAL DATE August 25-1937  
APPROVED [Signature] REGIONAL ENGINEER

SHEET 1 OF 7



- Stair Stringers 1-L 2" x 2" x  $\frac{1}{8}$ "
- Tread Angles do.
- Handrail Posts do.
- Lattice Angles 1-L 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " x  $\frac{1}{8}$ "
- Handrails do.
- 2" x 10" x 2'-0" Wood treads
- Cab to 1<sup>st</sup> Landing
- 2" x 12" x 2'-0" Wood treads
- 1<sup>st</sup> Landing to Base



U. S. DEPARTMENT OF AGRICULTURE  
 FOREST SERVICE

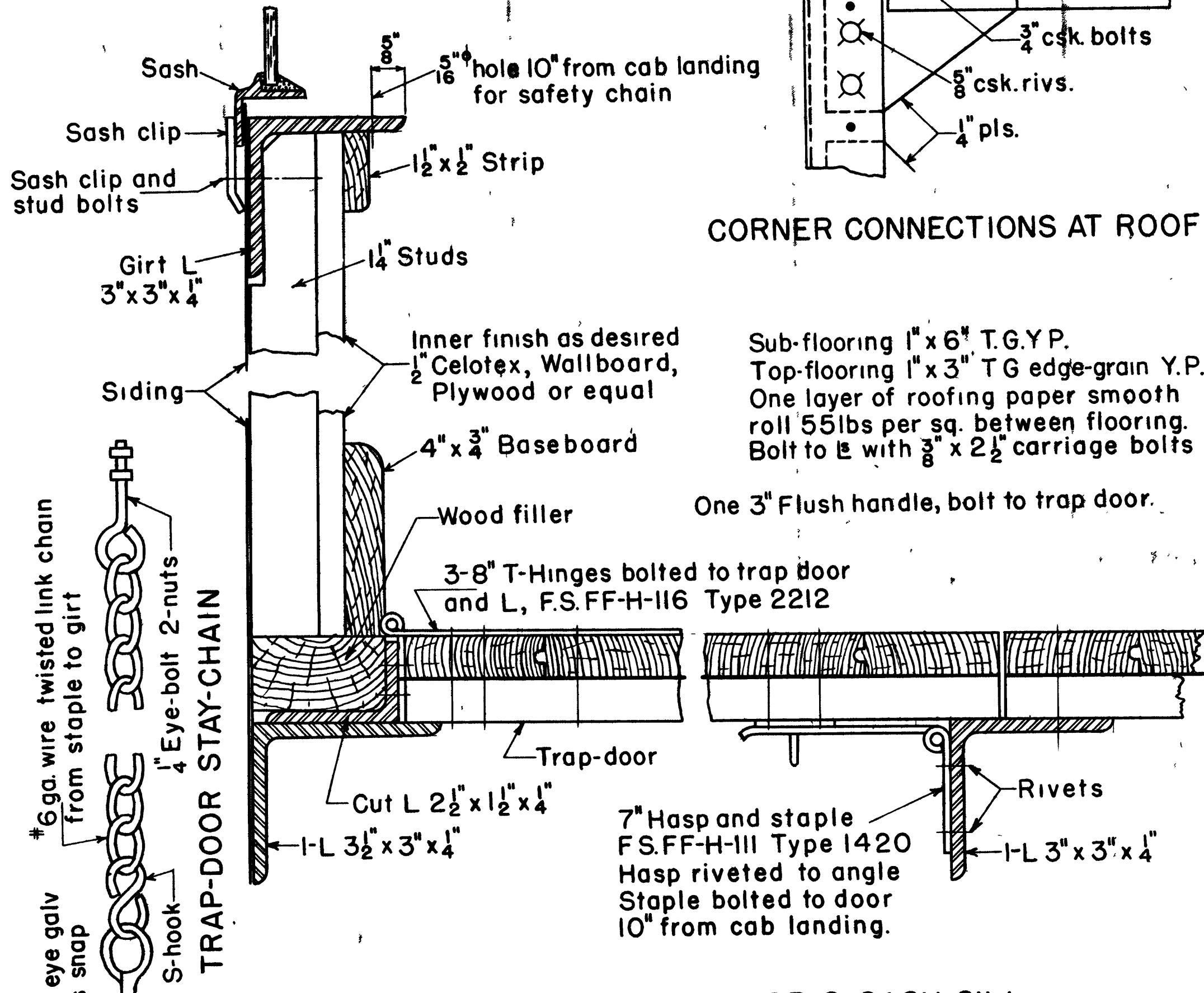
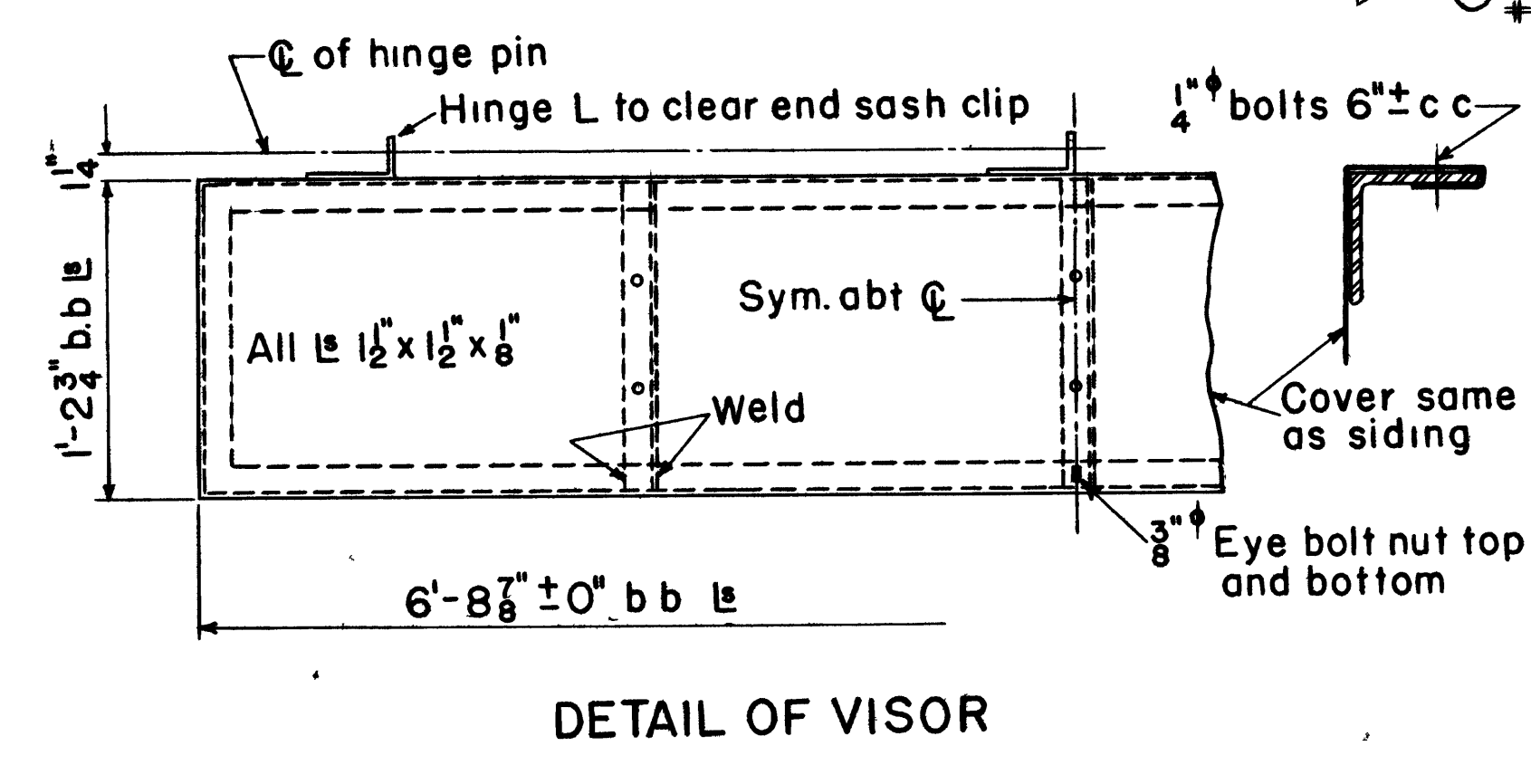
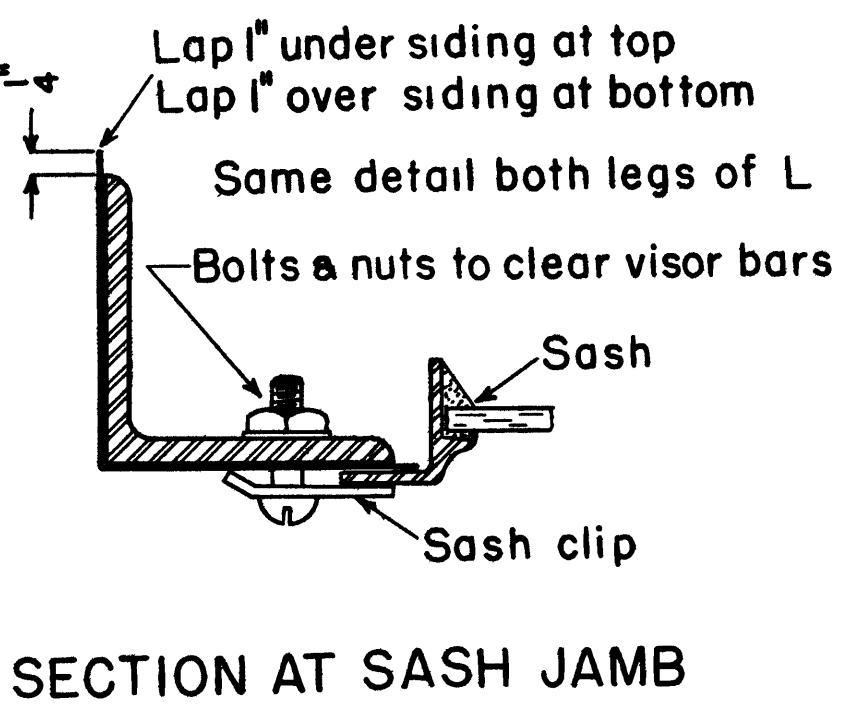
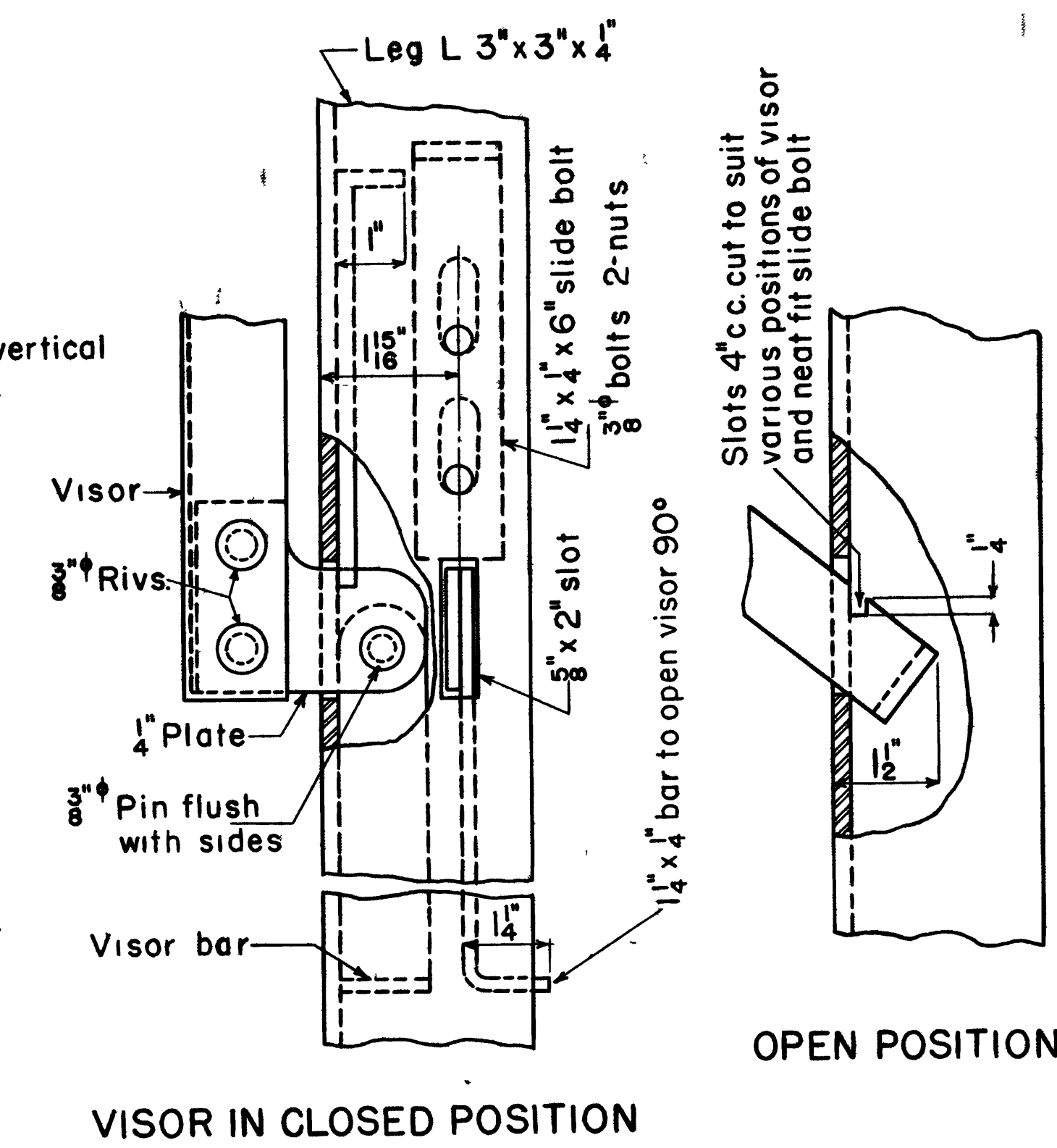
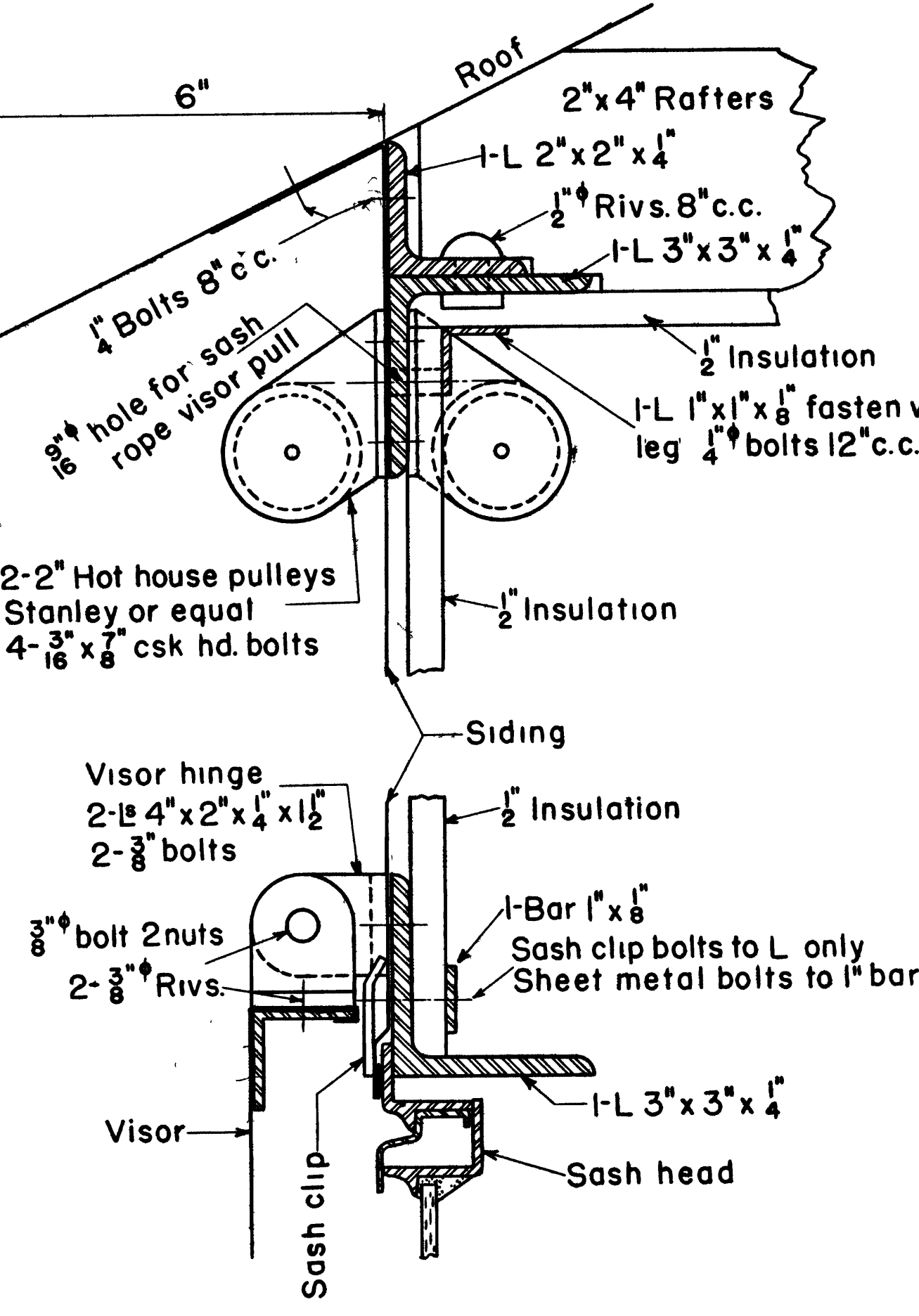
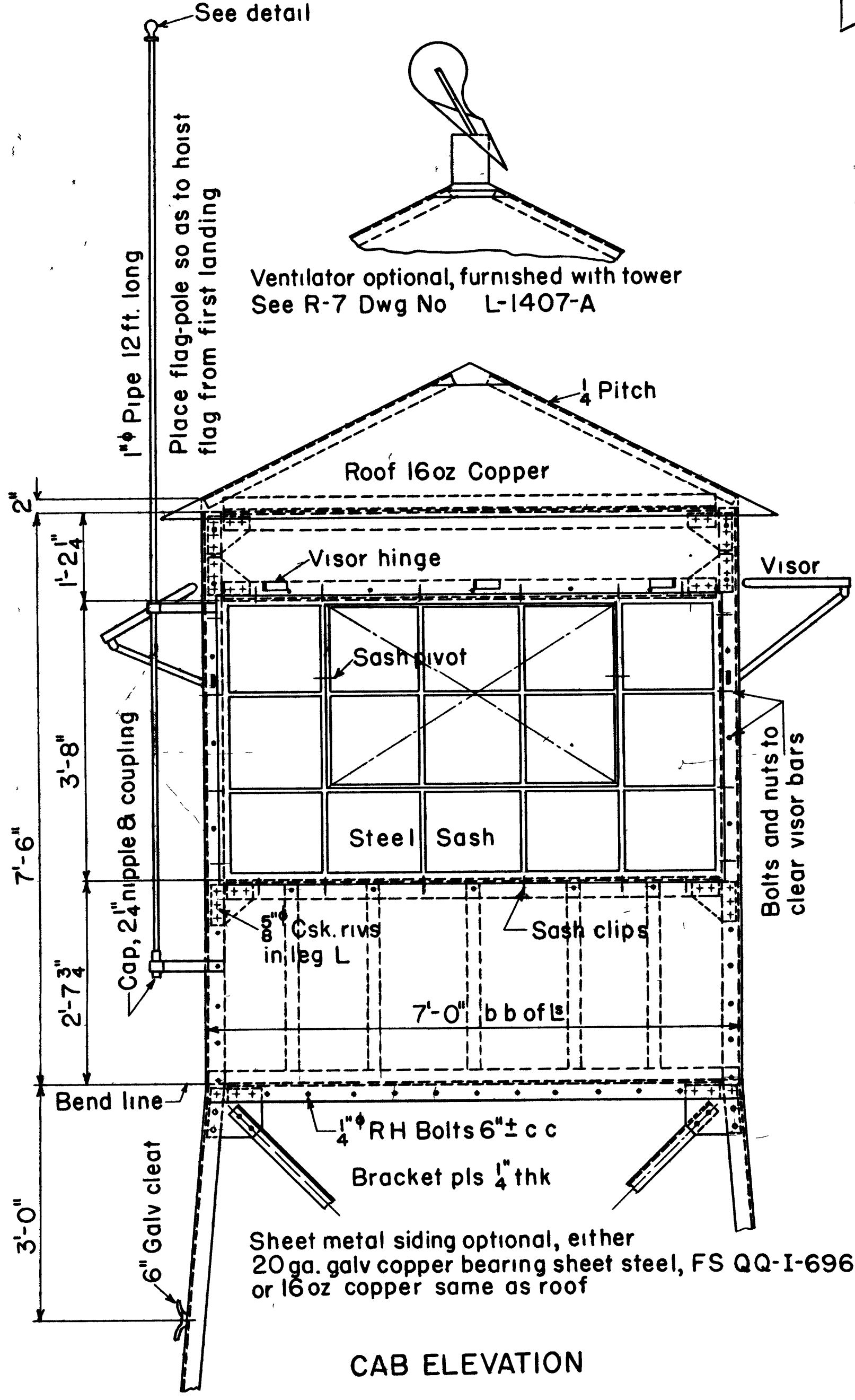
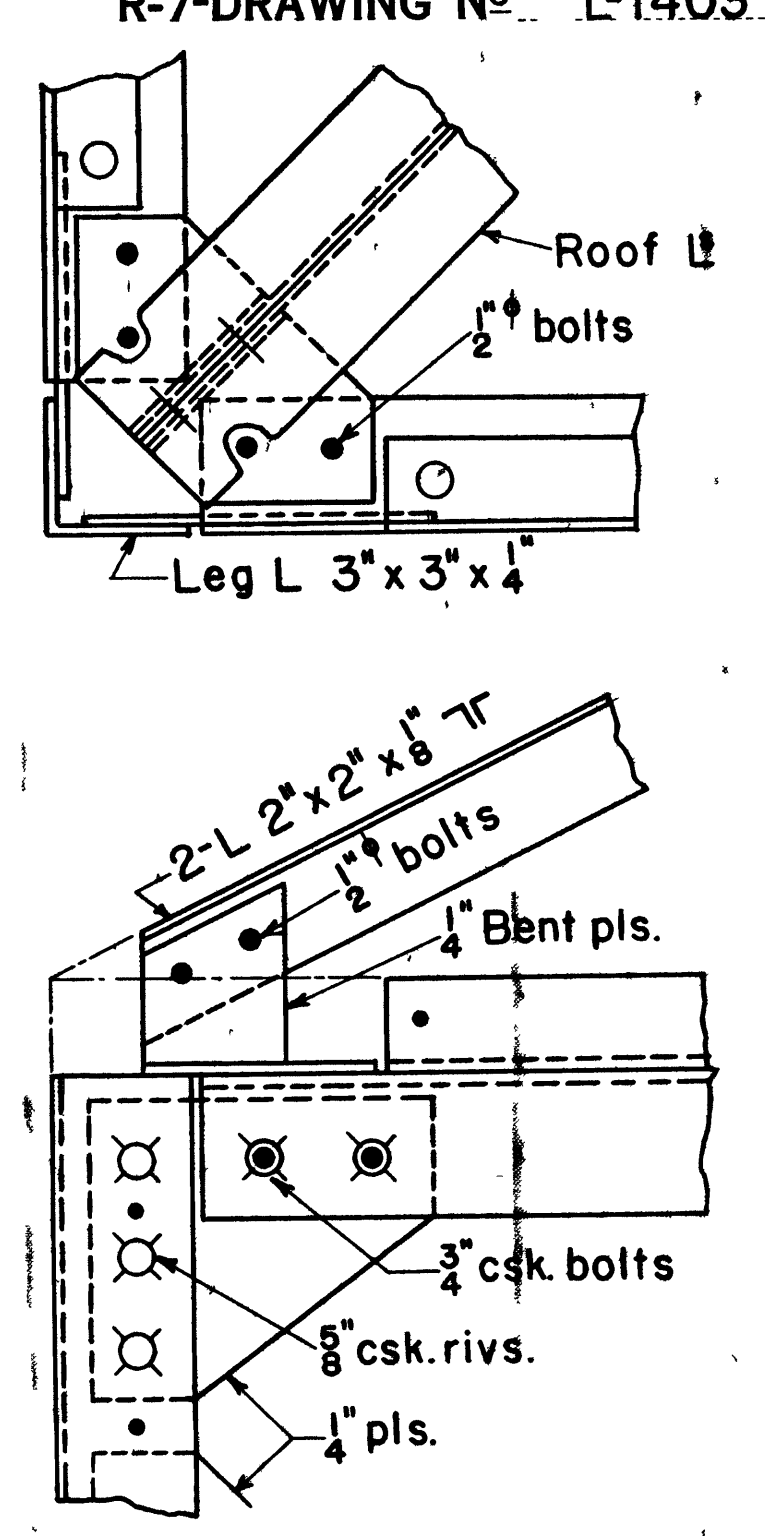
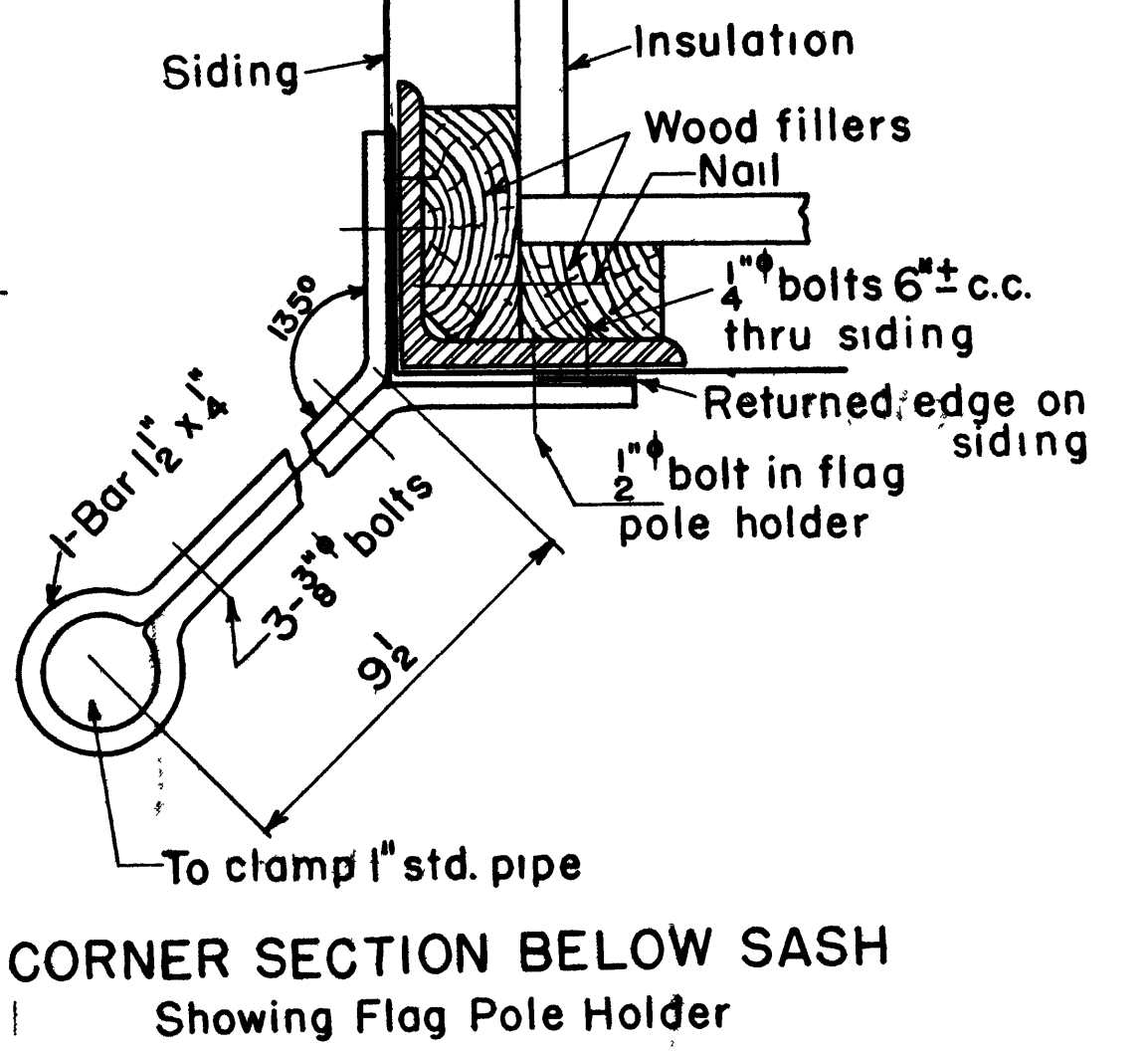
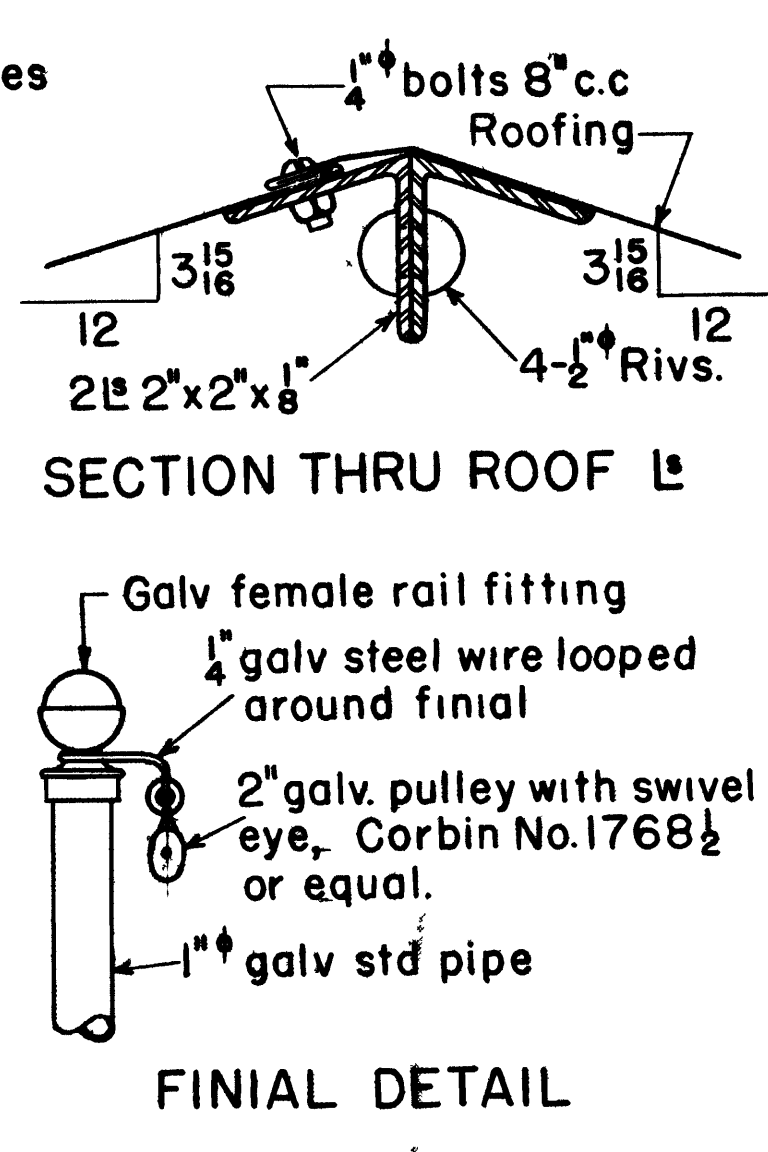
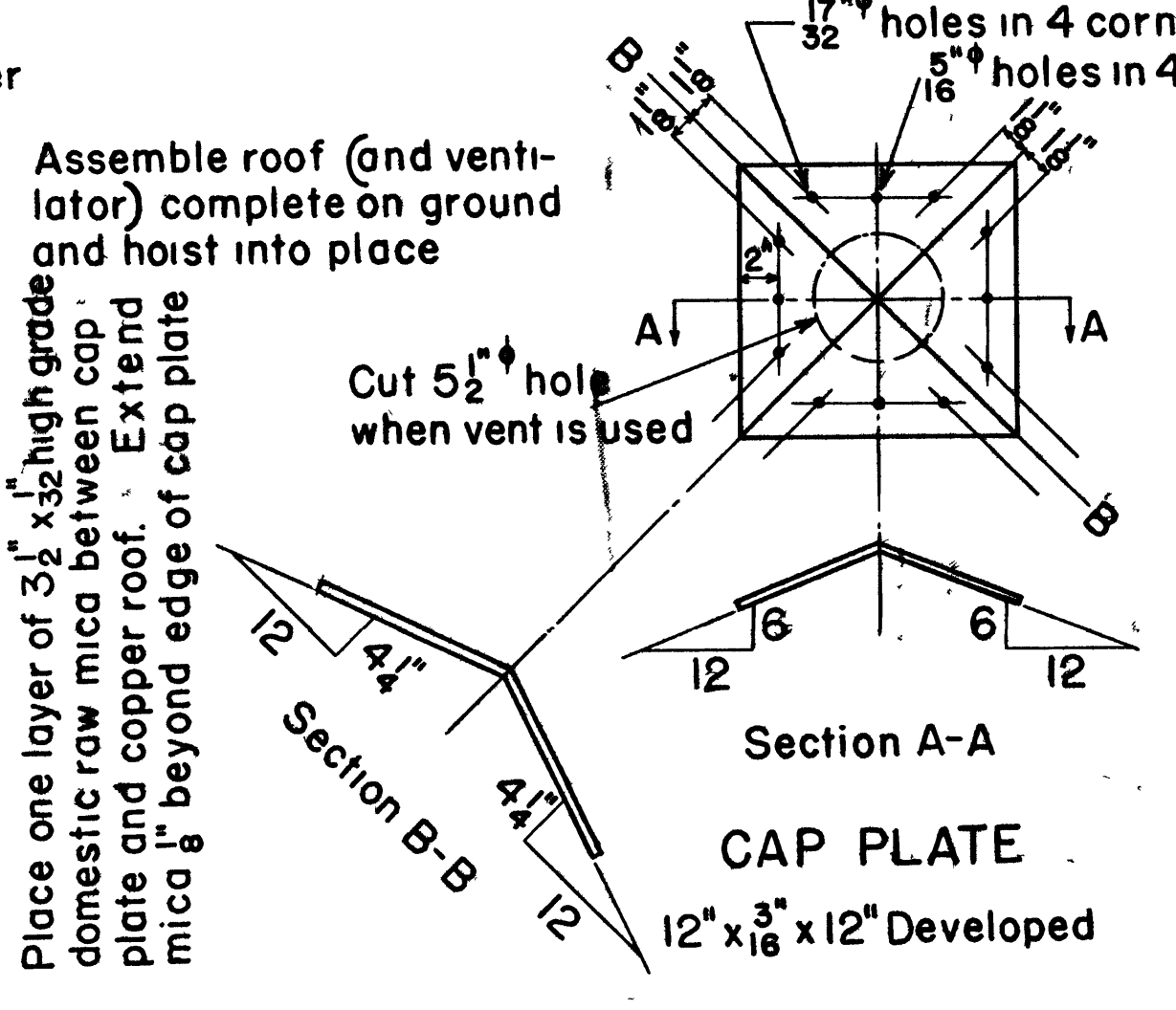
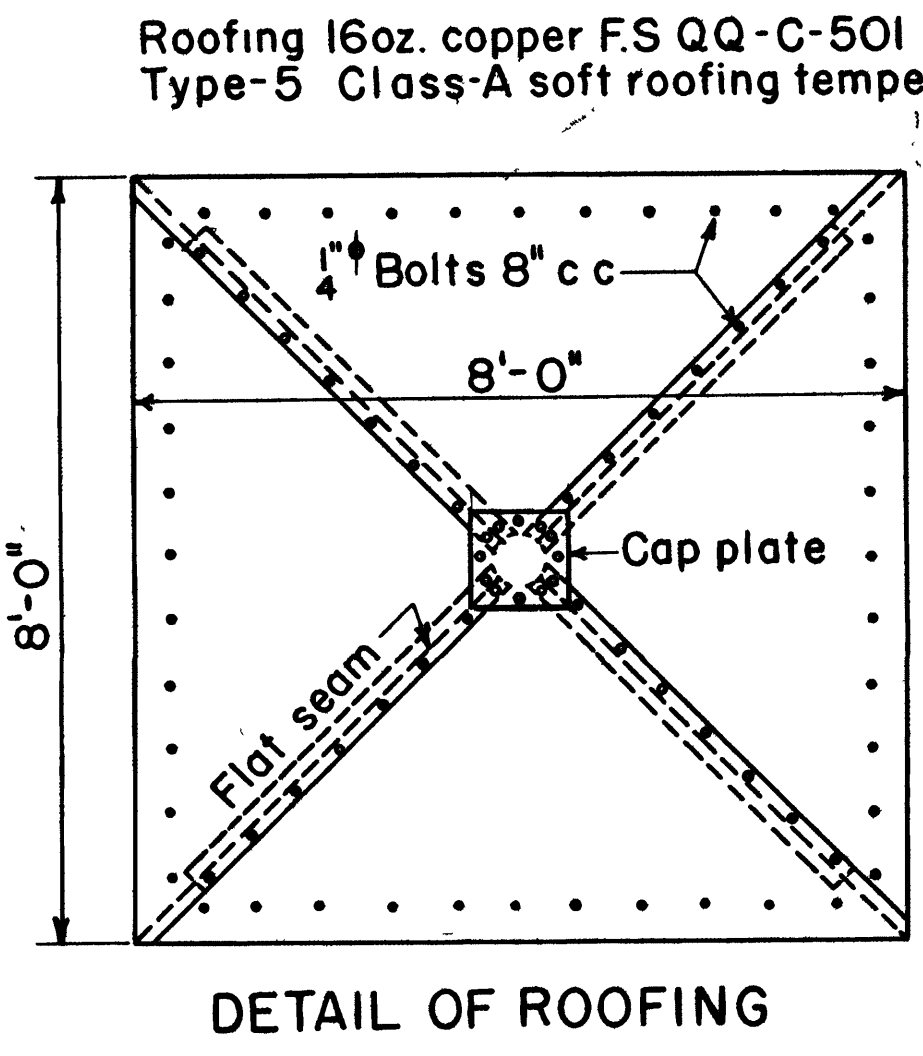
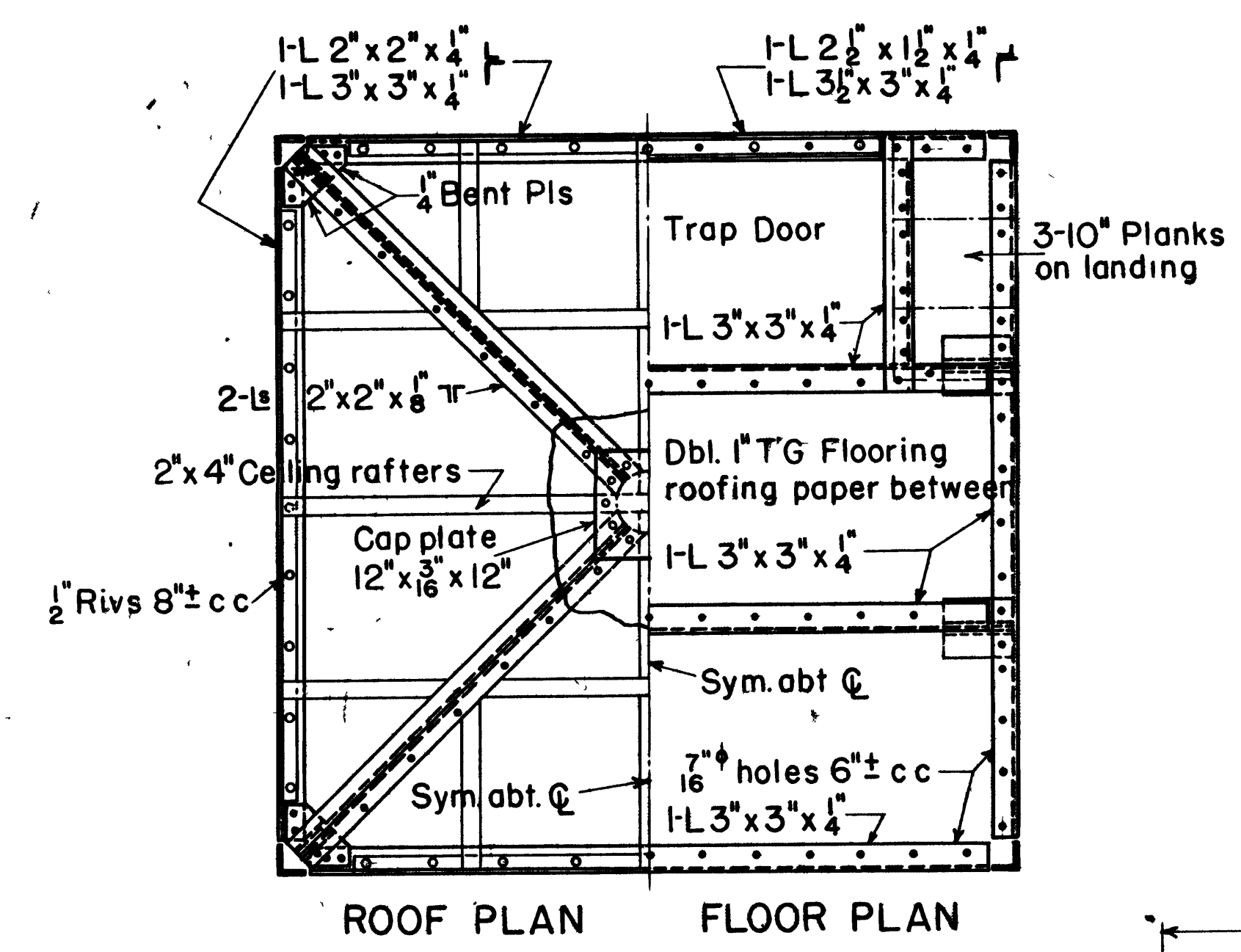
REGION SEVEN J.C. DORT REGIONAL ENGINEER

STANDARD STEEL LOOKOUT TOWERS  
 30' 41'-3" 54' 67'-6" 82'-6" 99'-9" & 120' HIGH  
 CAB SEVEN FEET SQUARE.

STAIR DETAILS

DESIGNED E.G.M. A.H.B. DRAWN A.H.B.  
 CHECKED E.G.M. TRACED A.H.B.  
 RECOMMENDED FOR APPROVAL DATE August 25-1937  
 APPROVED C.E.M. REGIONAL ENGINEER

SHEET 2 OF 7



For cab with flat roof, platform and steel sash, see dwg no. L-1404  
For cab with flat roof, platform and wood sash, see dwg no. L-1405

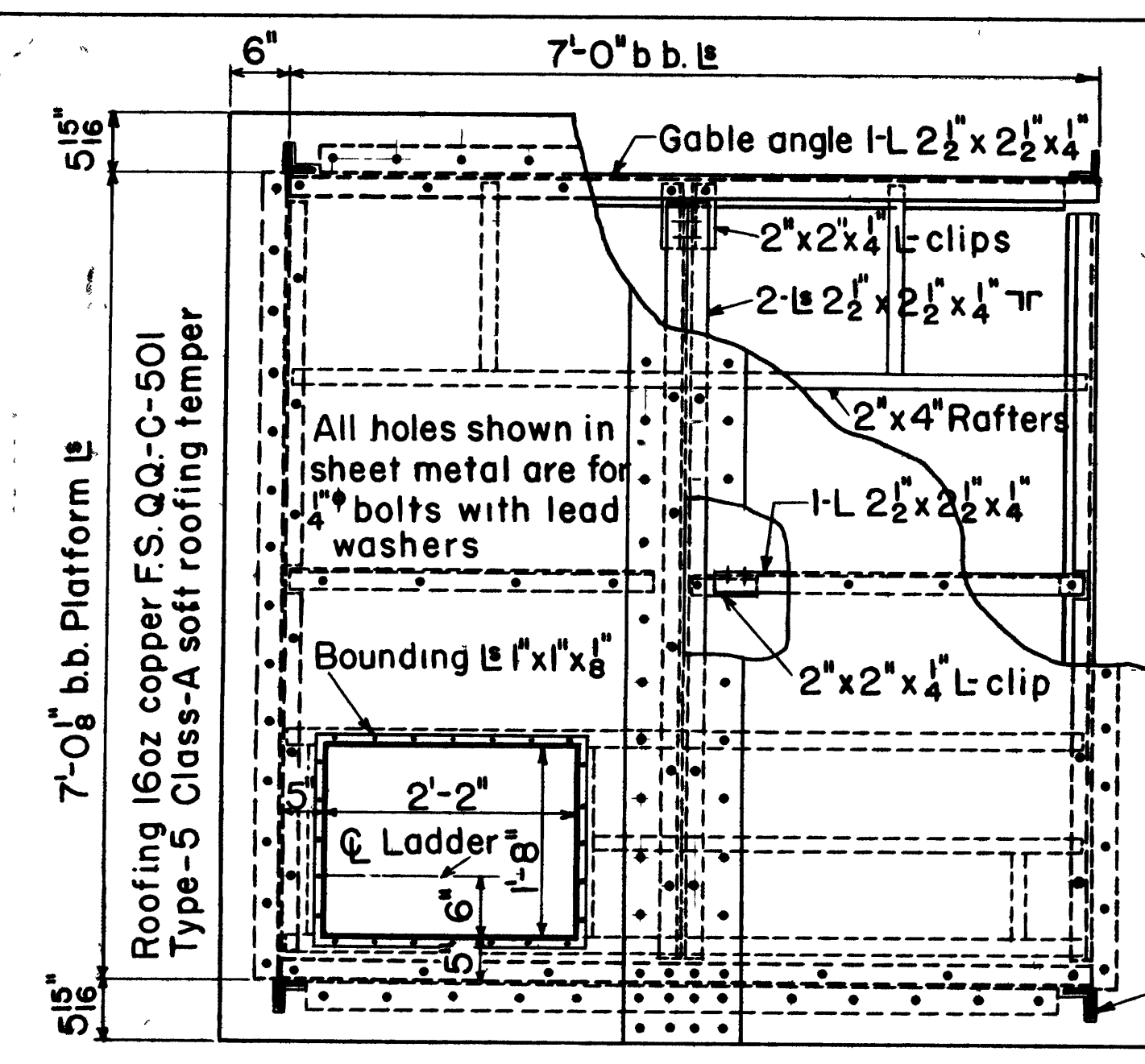
**U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE**

REGION SEVEN J. C. DORT REGIONAL ENGINEER

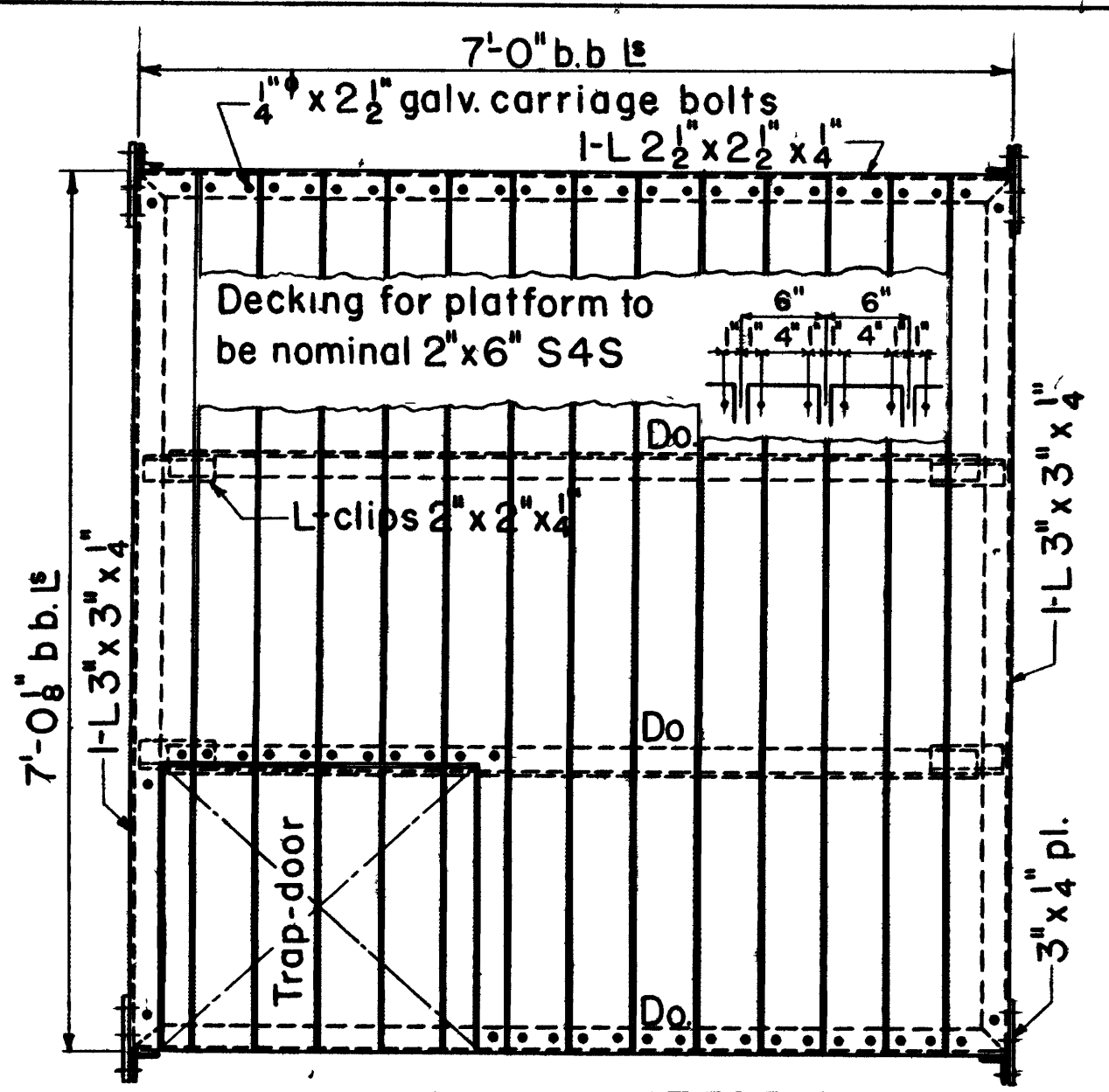
**STANDARD STEEL LOOKOUT TOWERS  
30' 41'-3" 54' 67'-6" 82'-6" 99'-9" & 120' HIGH  
CAB SEVEN FEET SQUARE  
CAB DETAILS**

DESIGNED E. G. M. A. H. B. DRAWN A. H. B.  
CHECKED E. G. M. TRACED A. H. B.  
RECOMMENDED FOR APPROVAL DATE August 25, 1937.  
E. G. M. APPROVED [Signature] REGIONAL ENGINEER

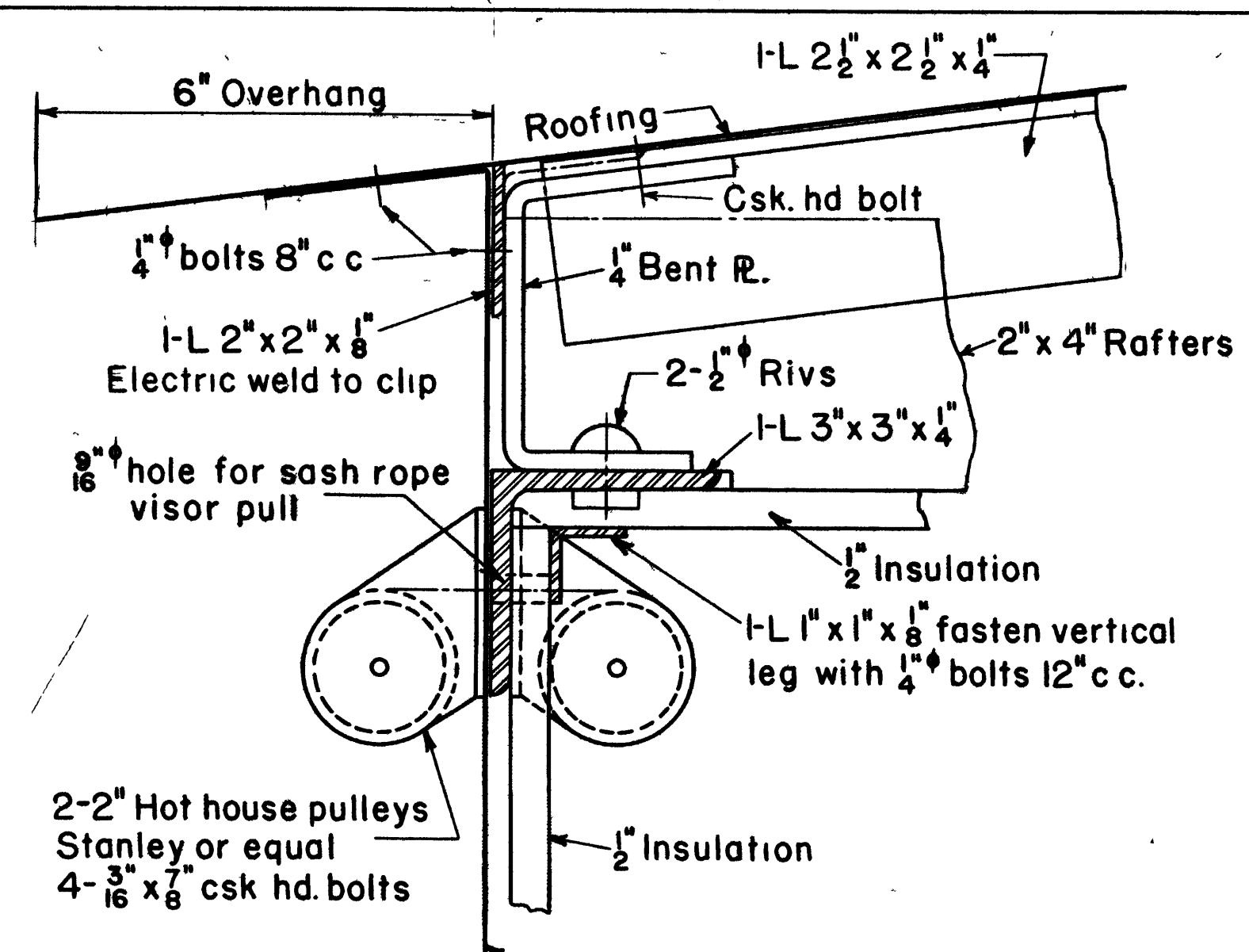
SHEET 3 OF 7



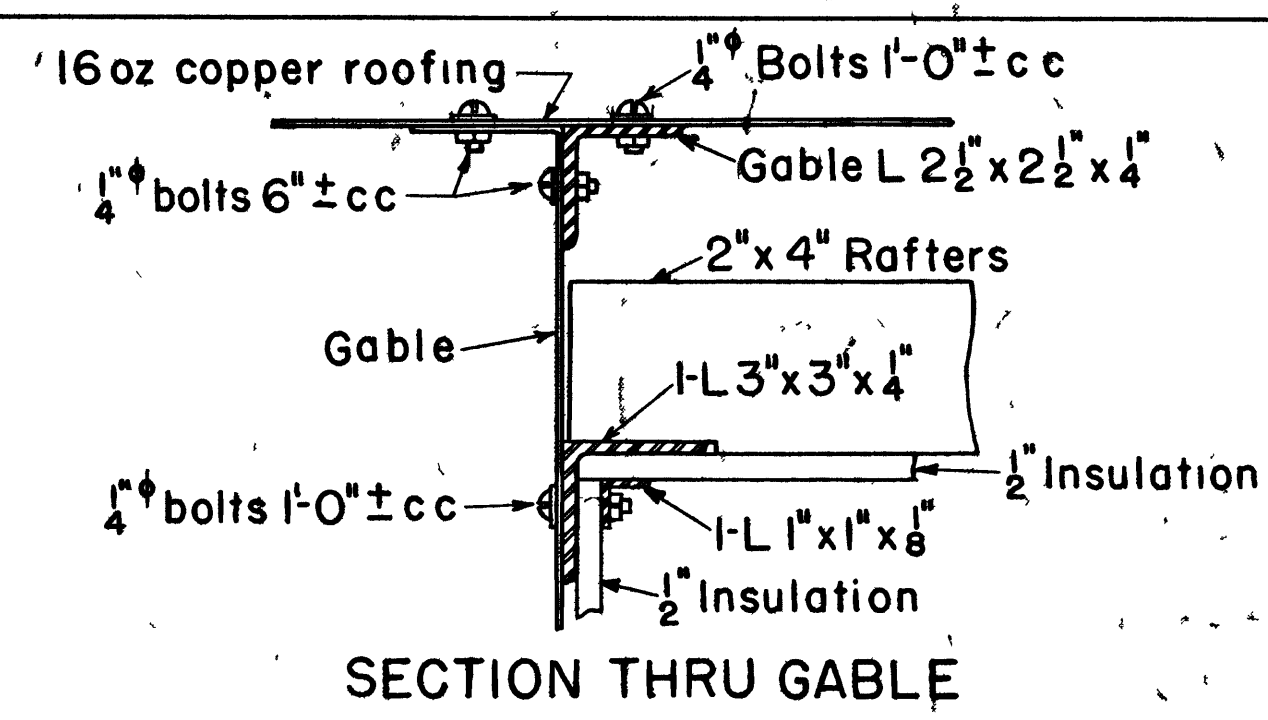
DETAIL OF ROOFING



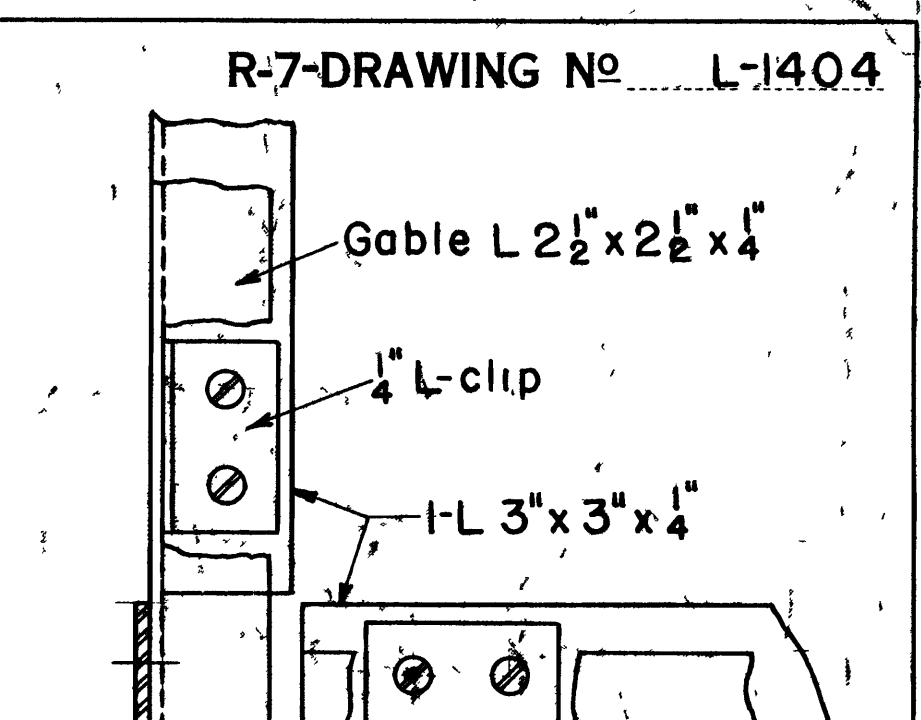
DETAIL OF PLATFORM



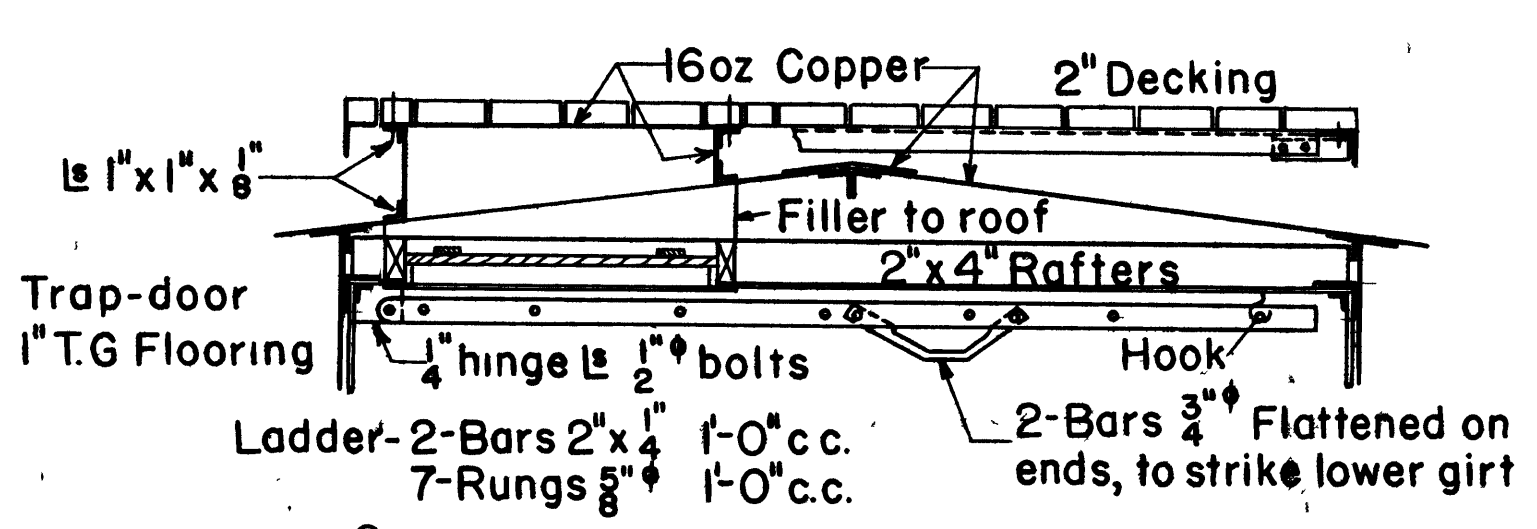
SECTION AT SASH HEAD & EAVE STRUT



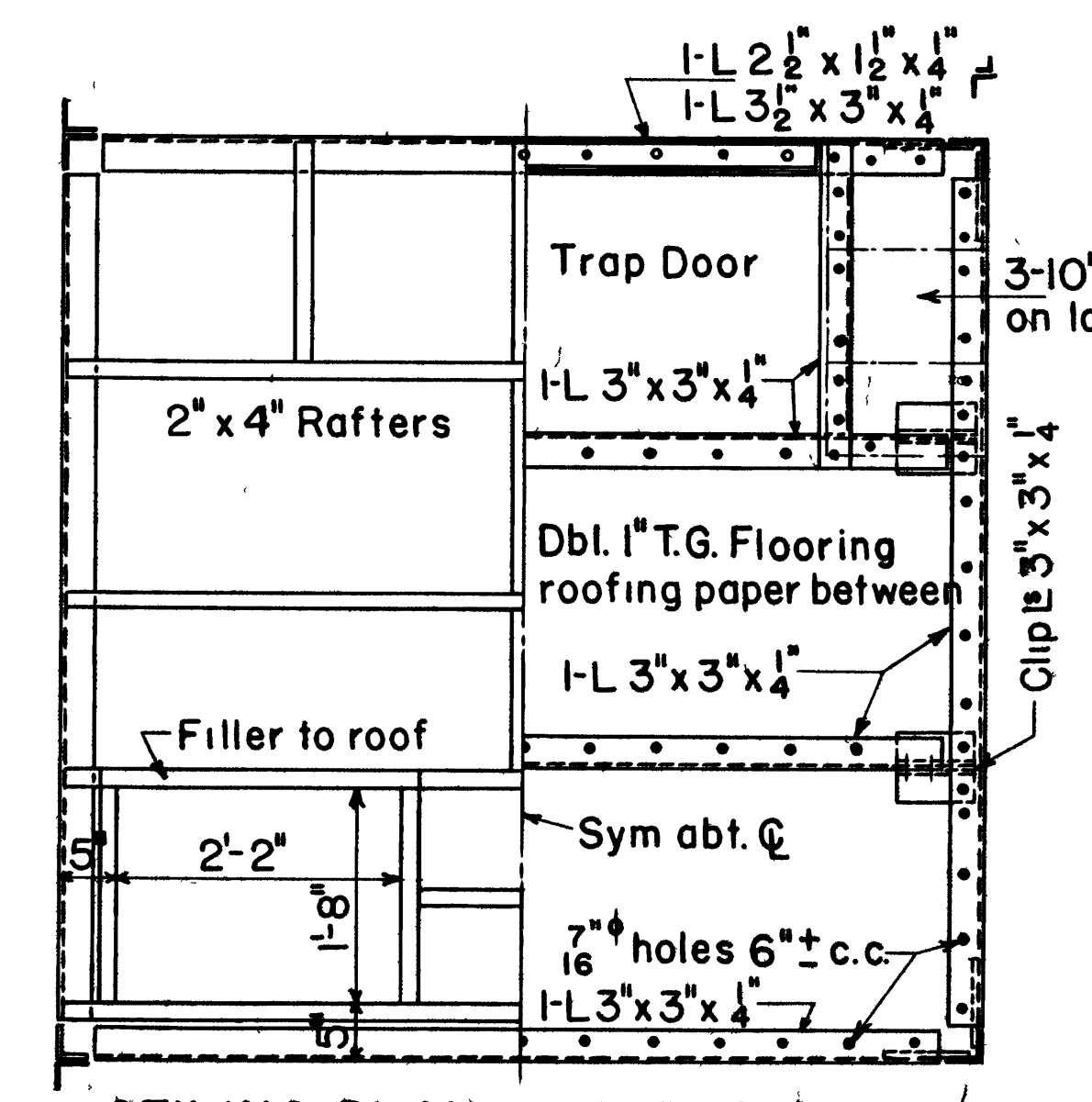
SECTION THRU GABLE



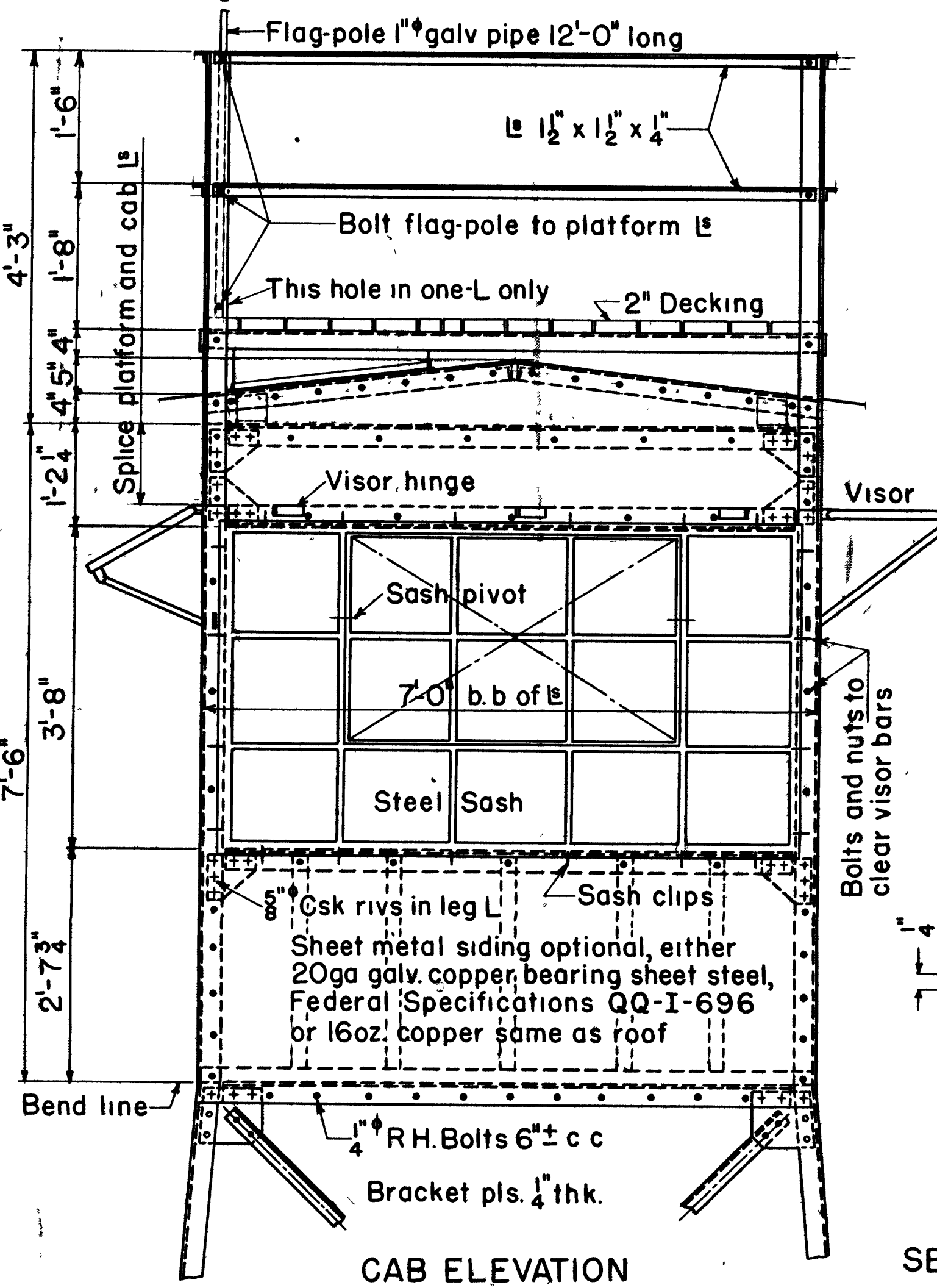
CORNER CONNECTIONS AT ROOF



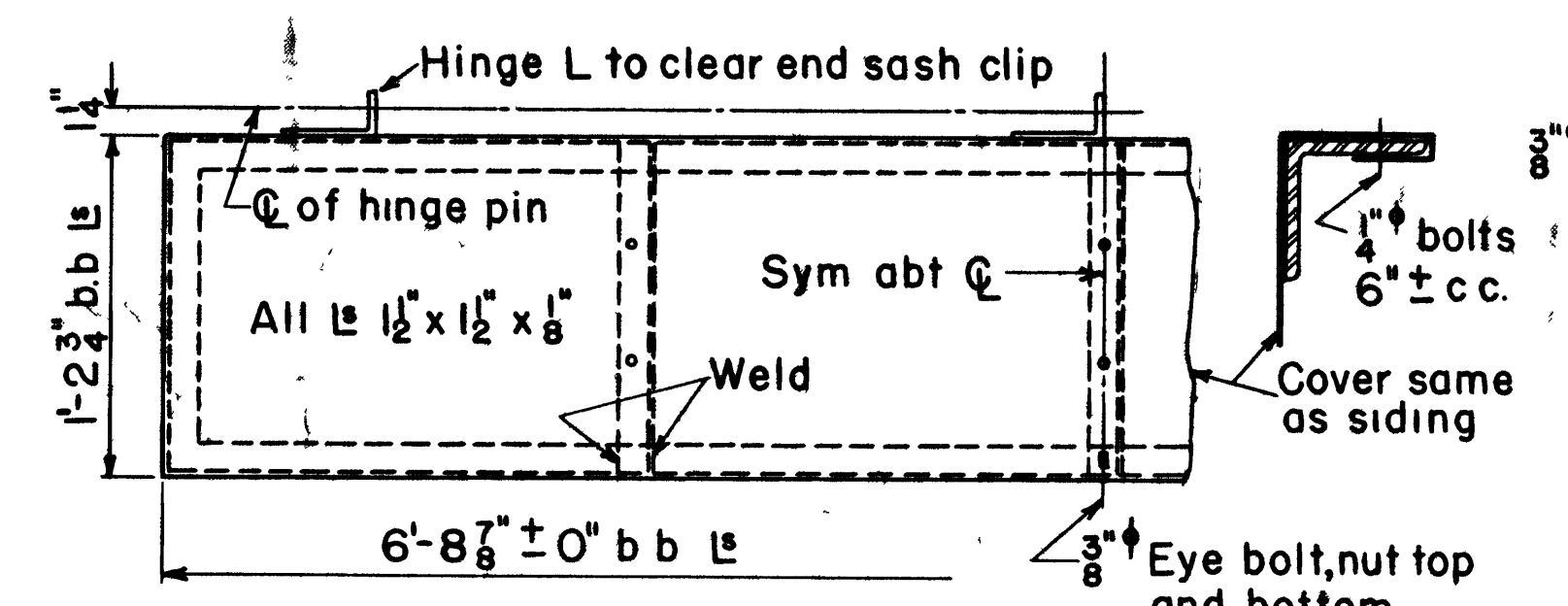
CROSS SECTION CEILING, ROOF, PLATFORM.



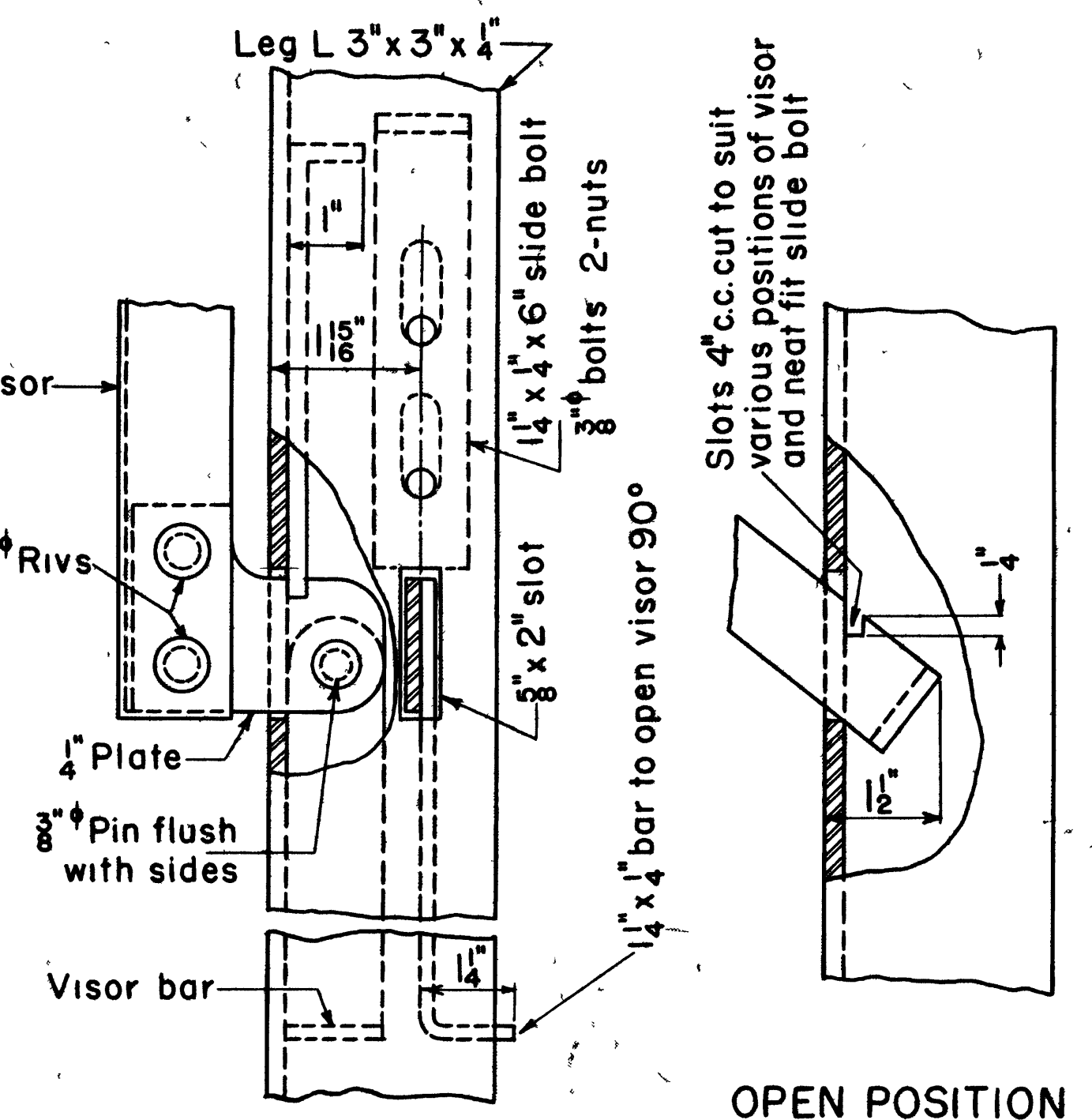
CEILING PLAN FLOOR PLAN



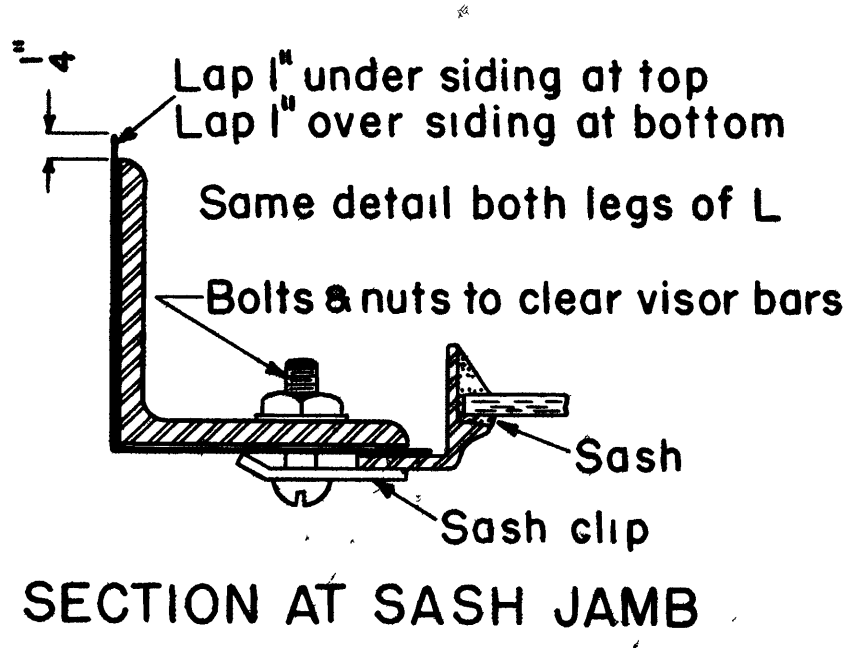
CAB ELEVATION



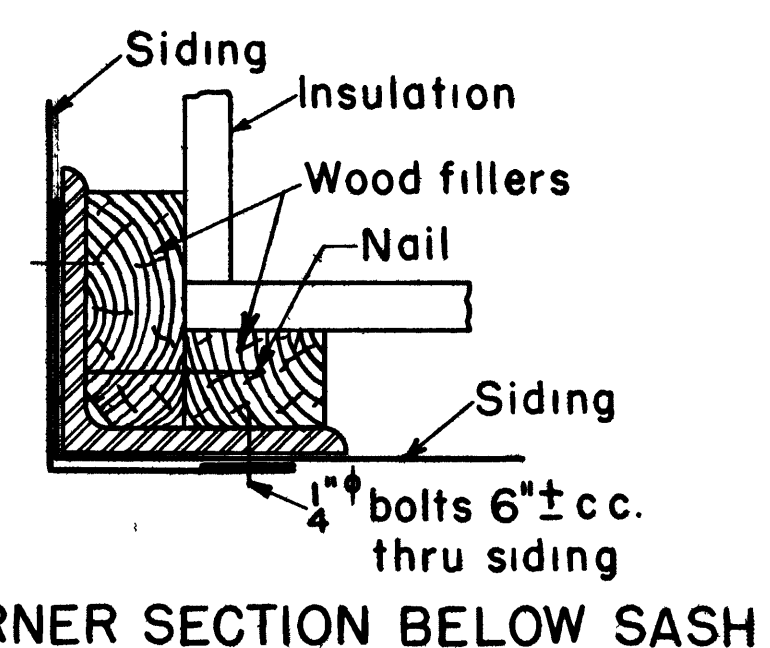
DETAIL OF VISOR



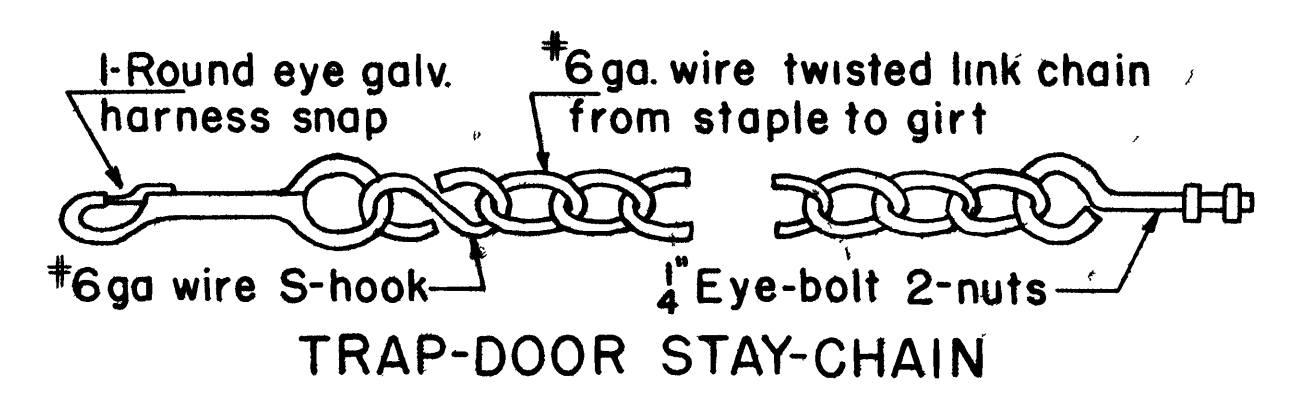
VISOR IN OPEN POSITION



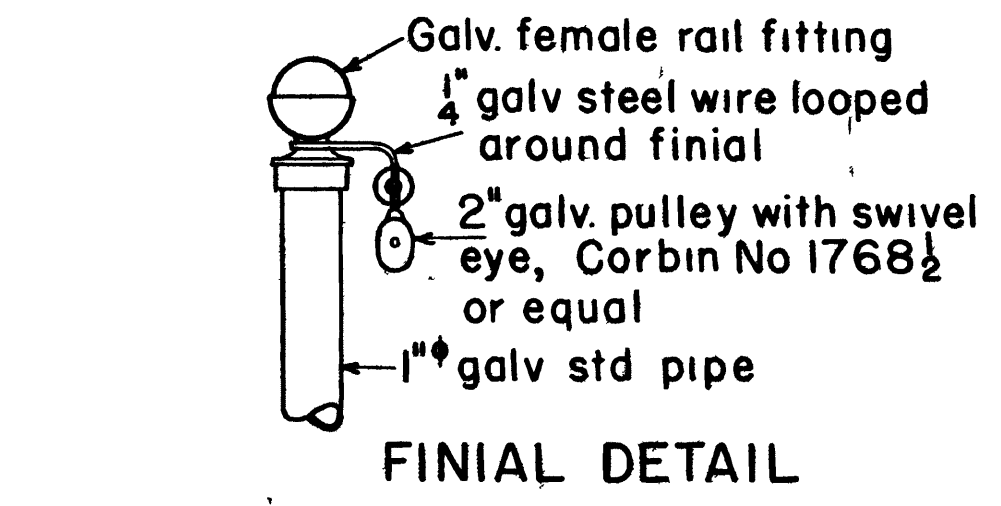
SECTION AT SASH JAMB



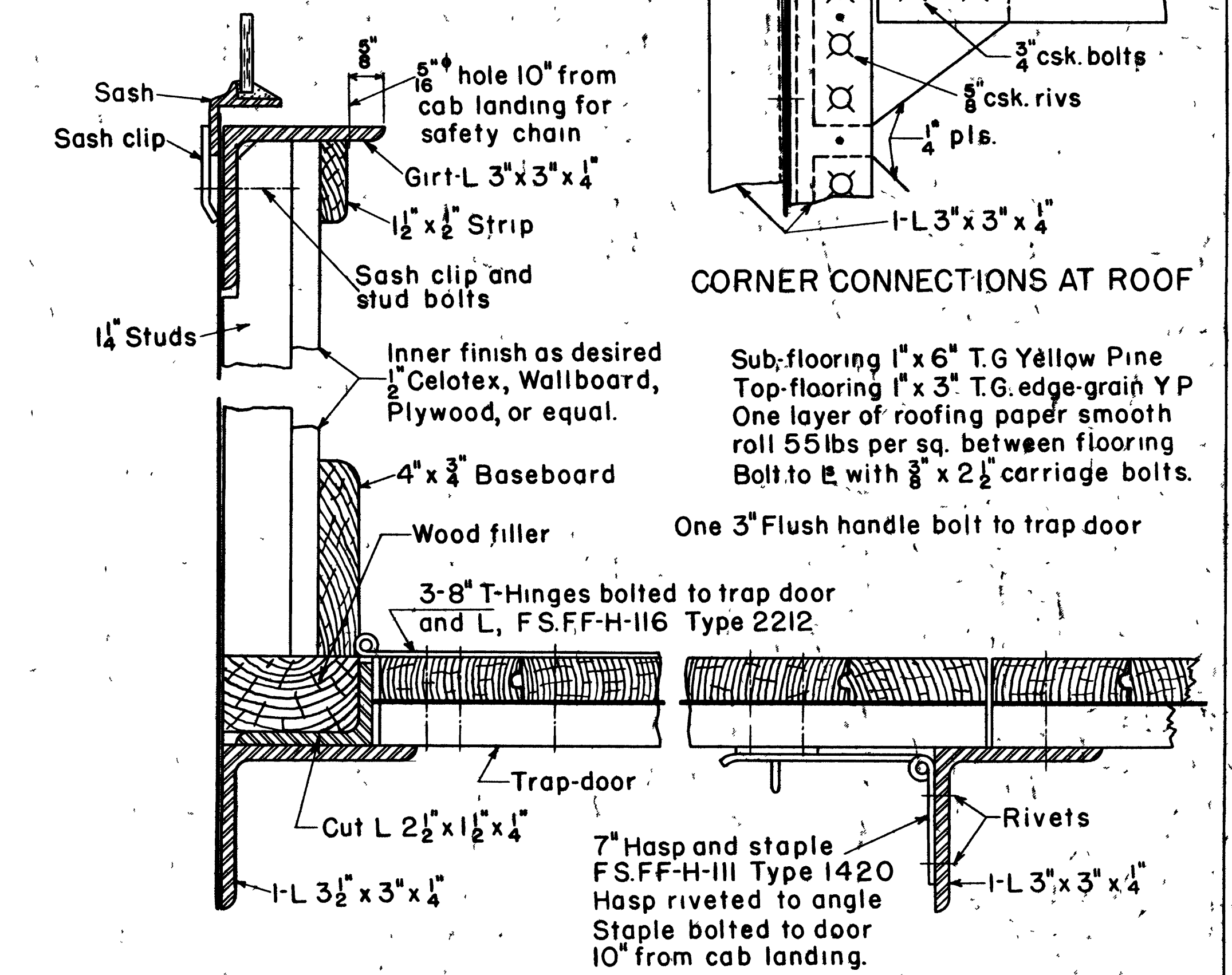
CORNER SECTION BELOW SASH



TRAP-DOOR STAY-CHAIN



FINIAL DETAIL



SECTION THRU TRAP-DOOR & SASH SILL

For cab with flat roof, platform and wood sash, see dwg. L-1405

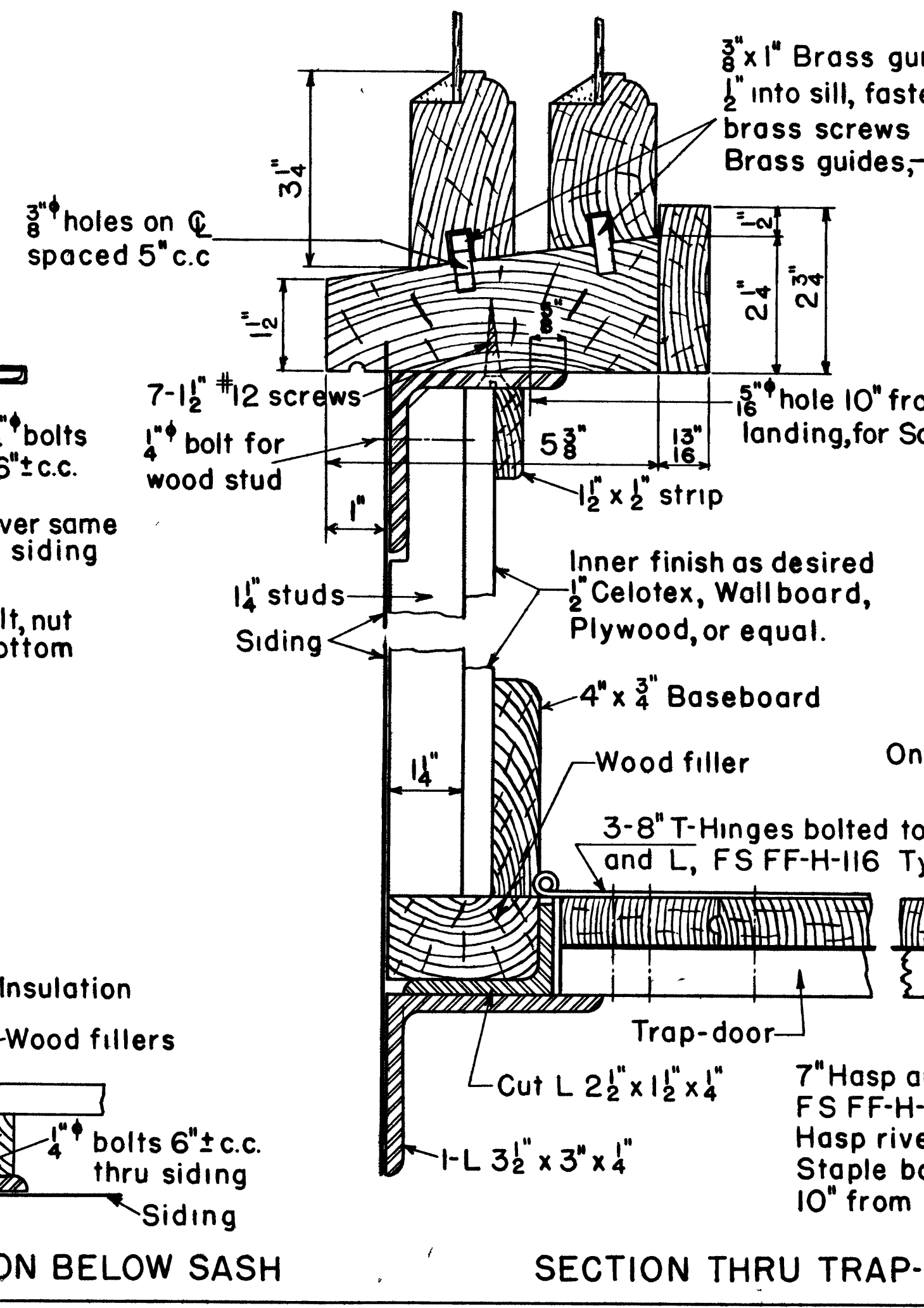
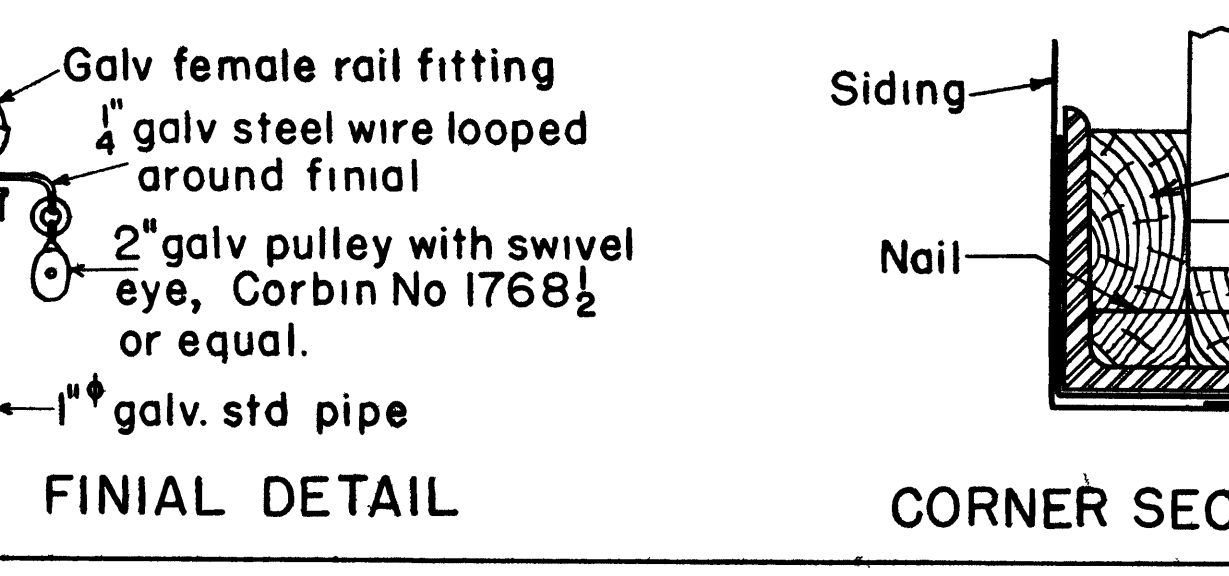
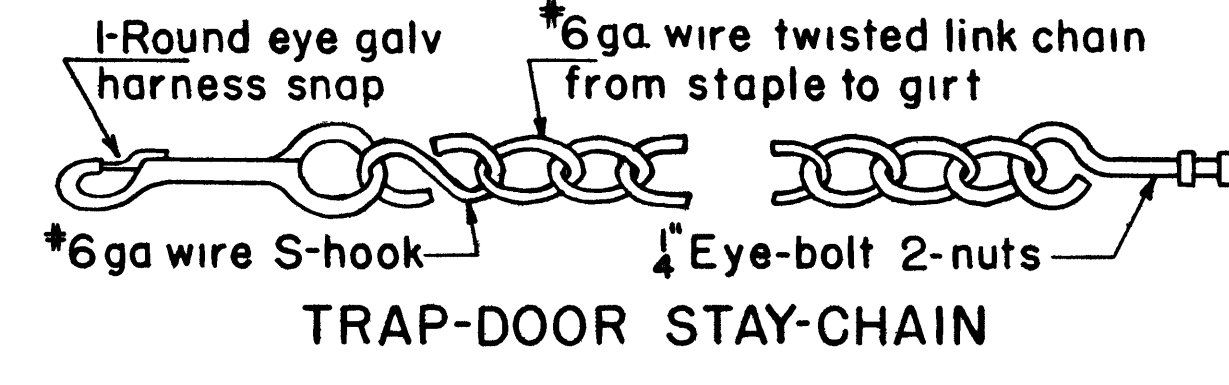
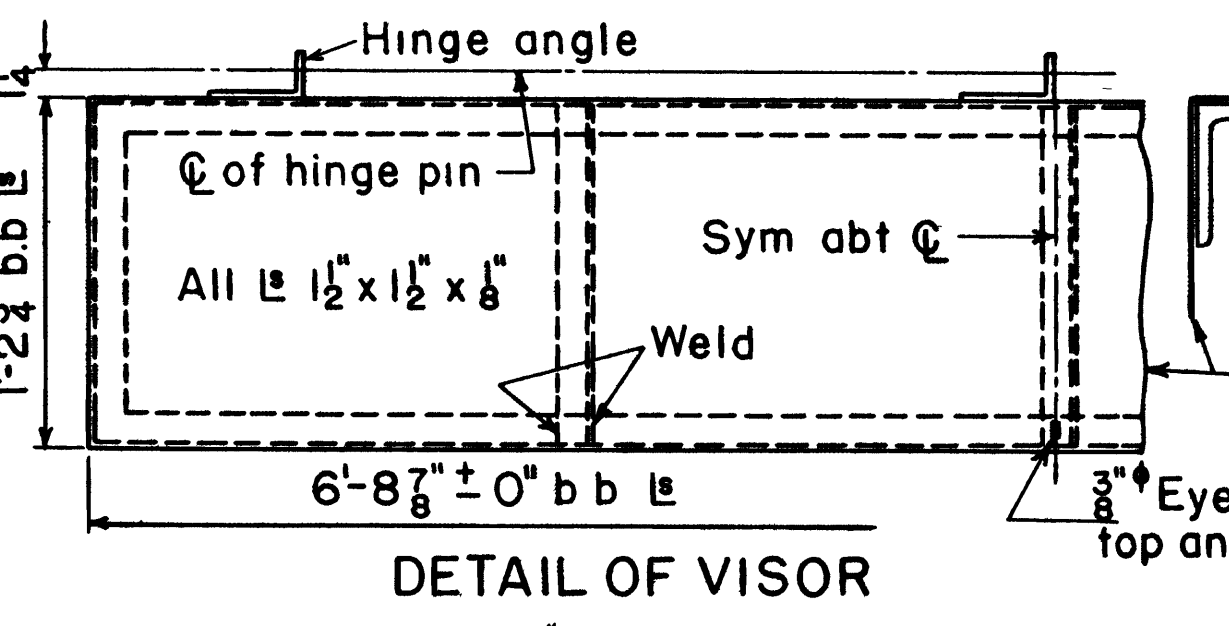
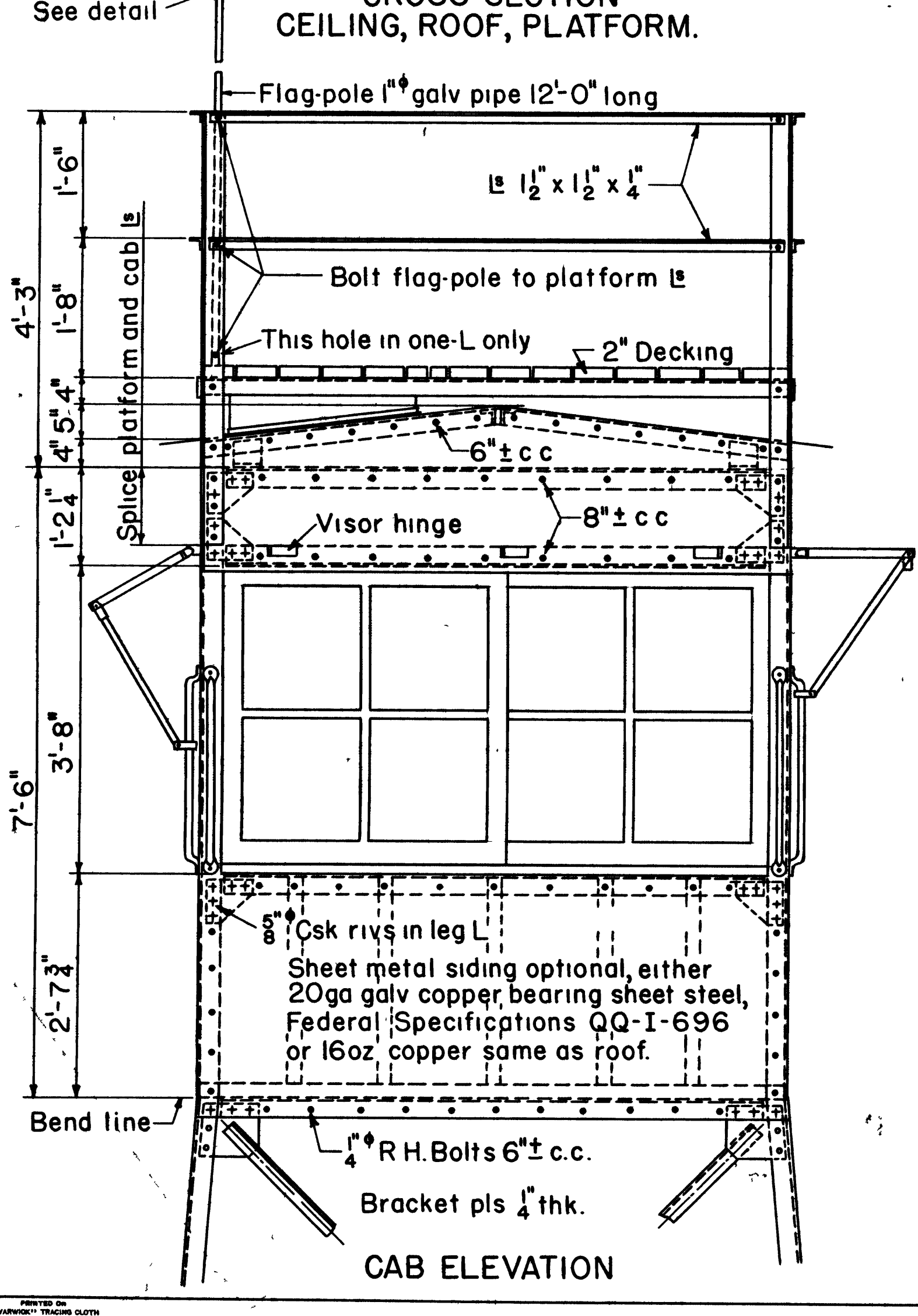
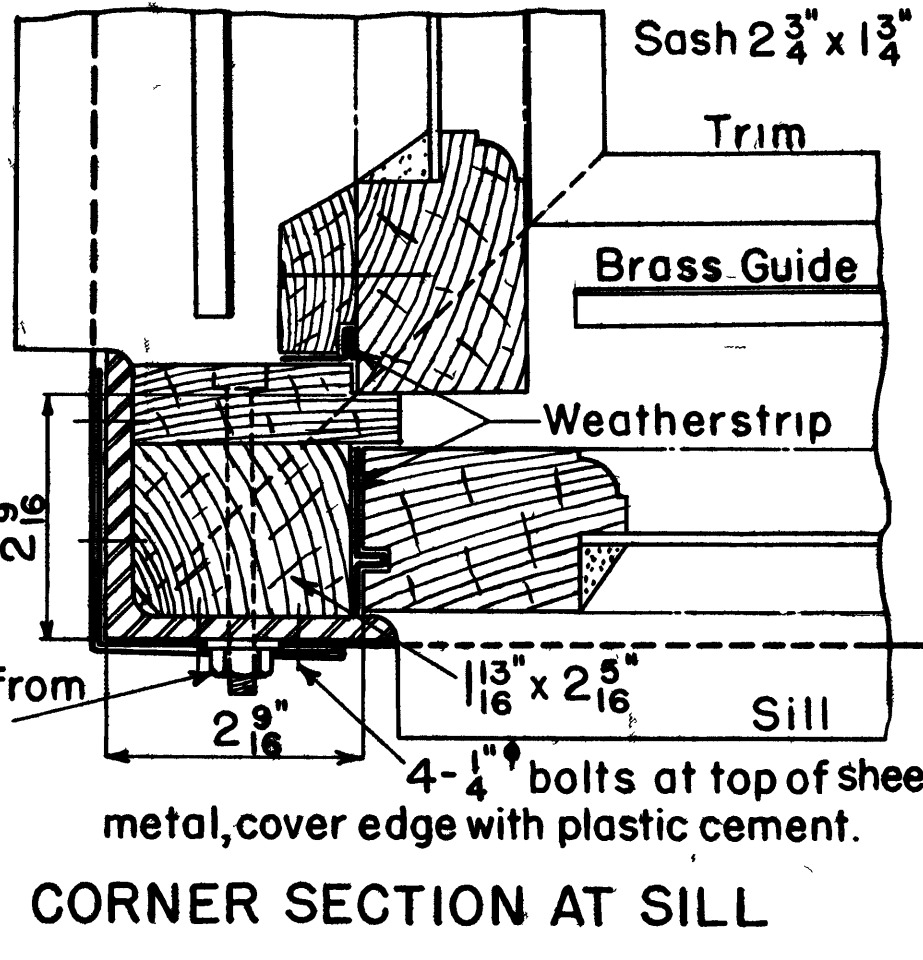
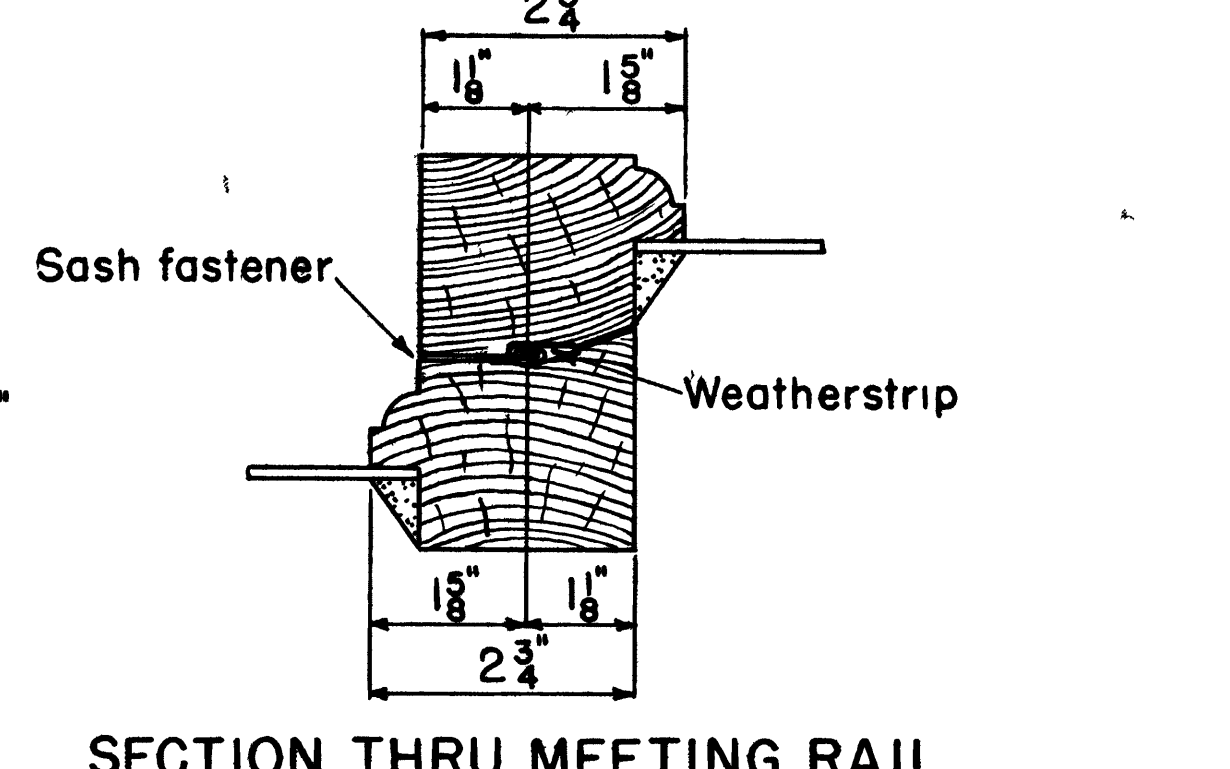
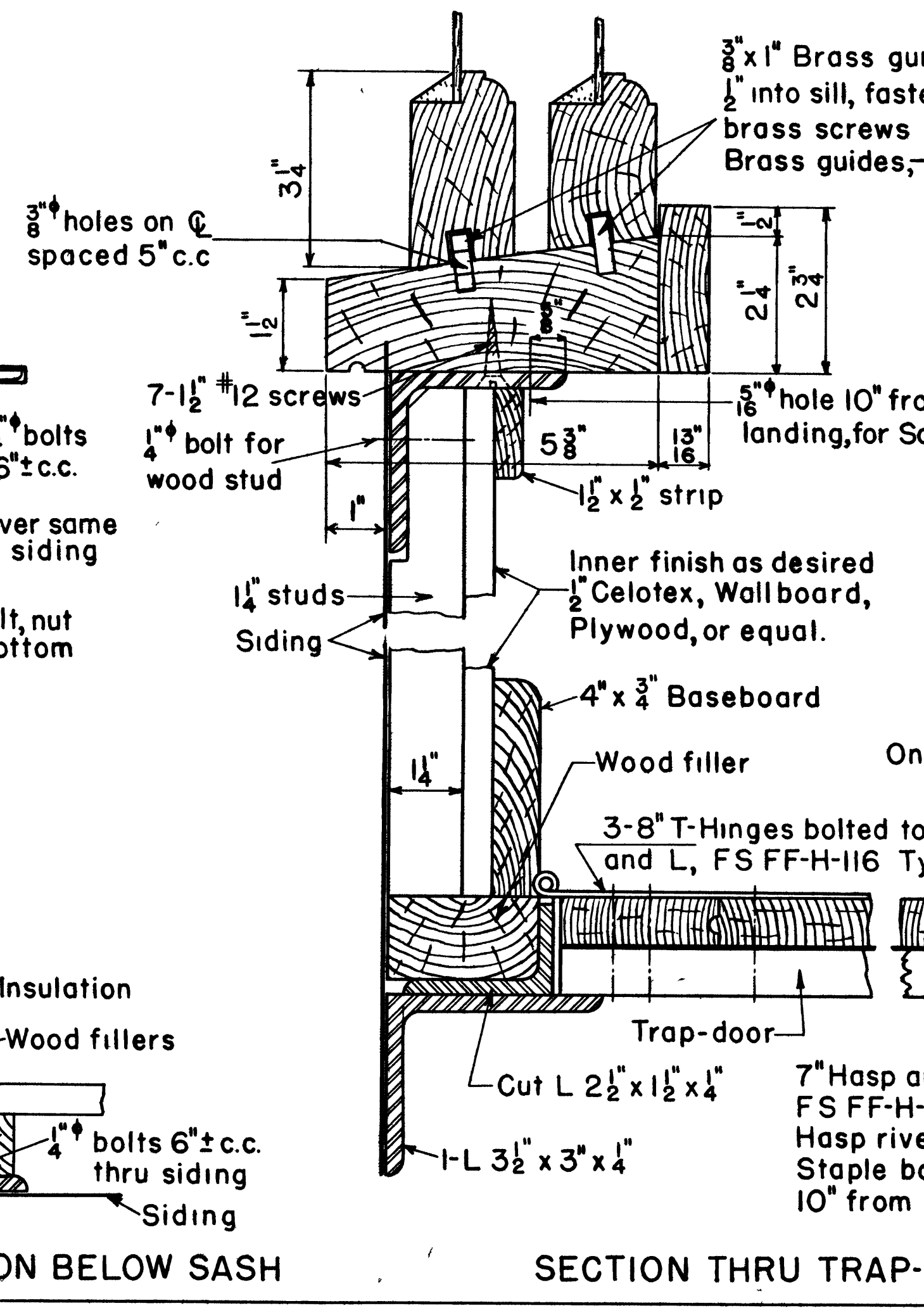
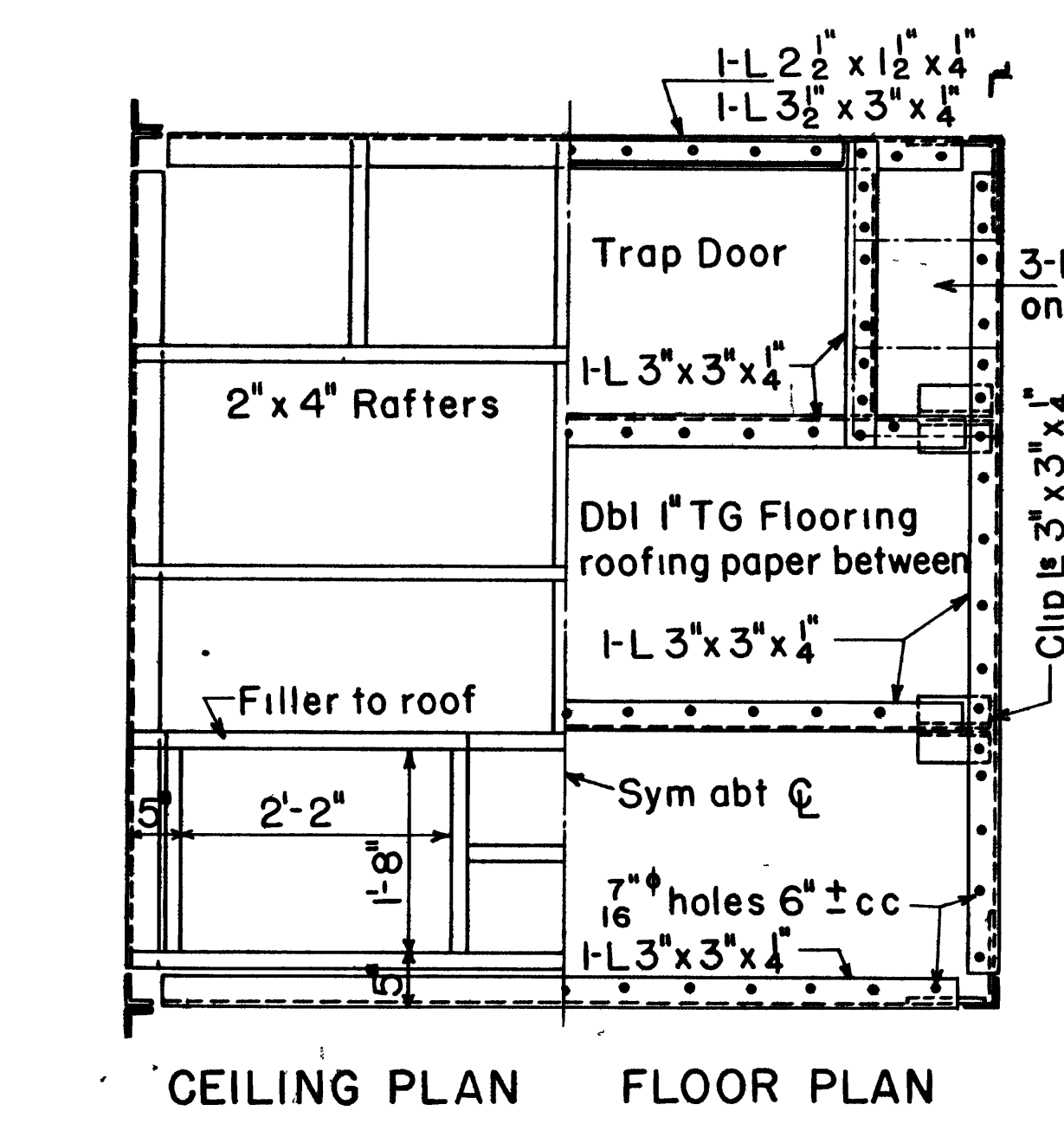
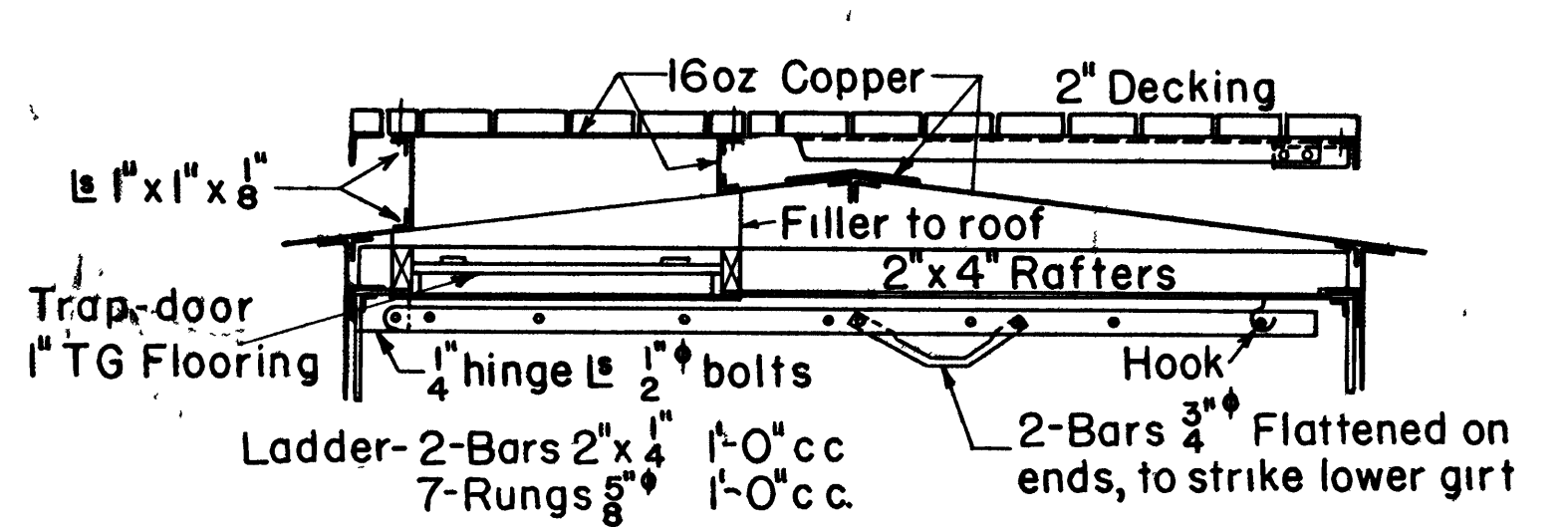
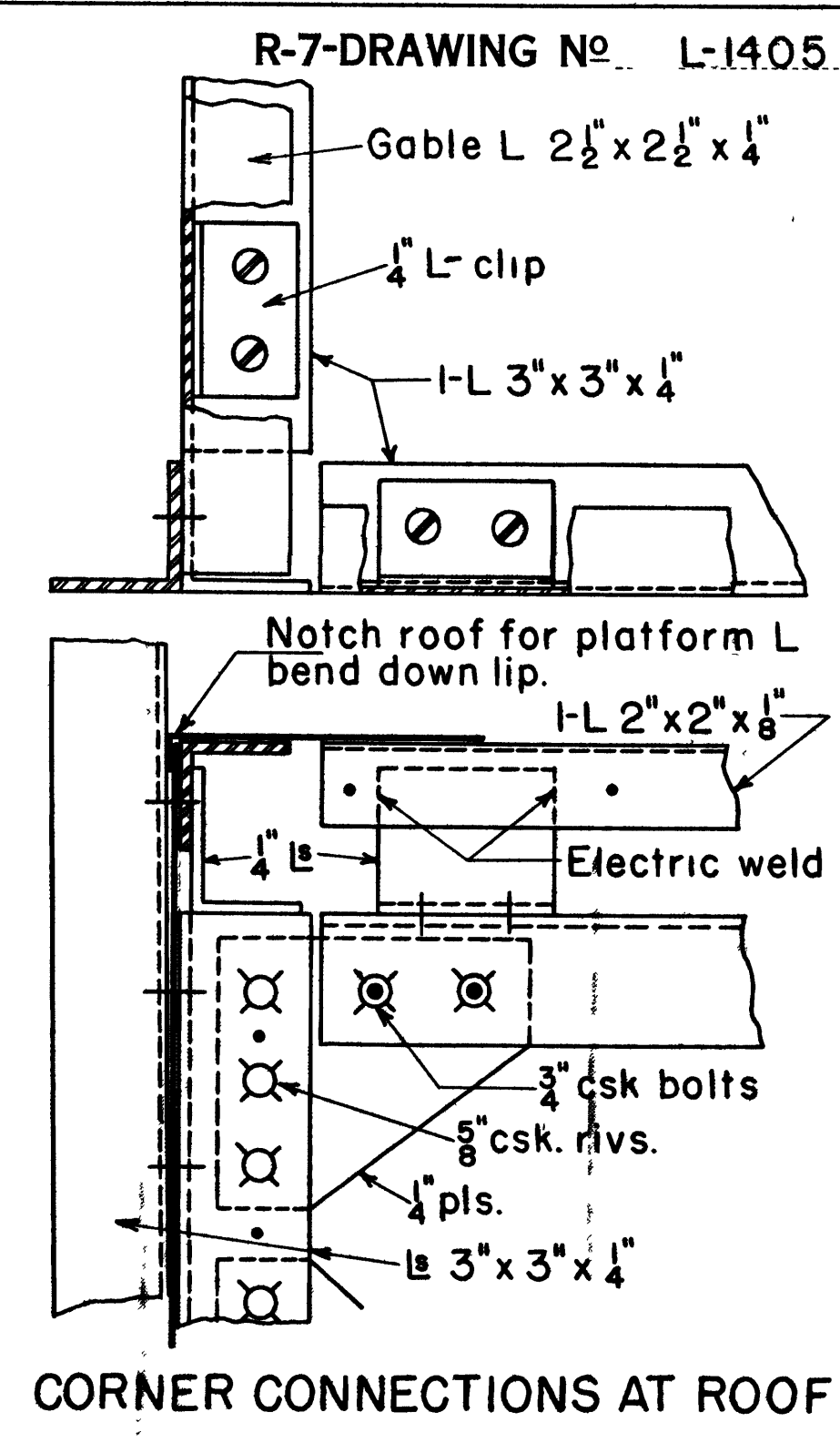
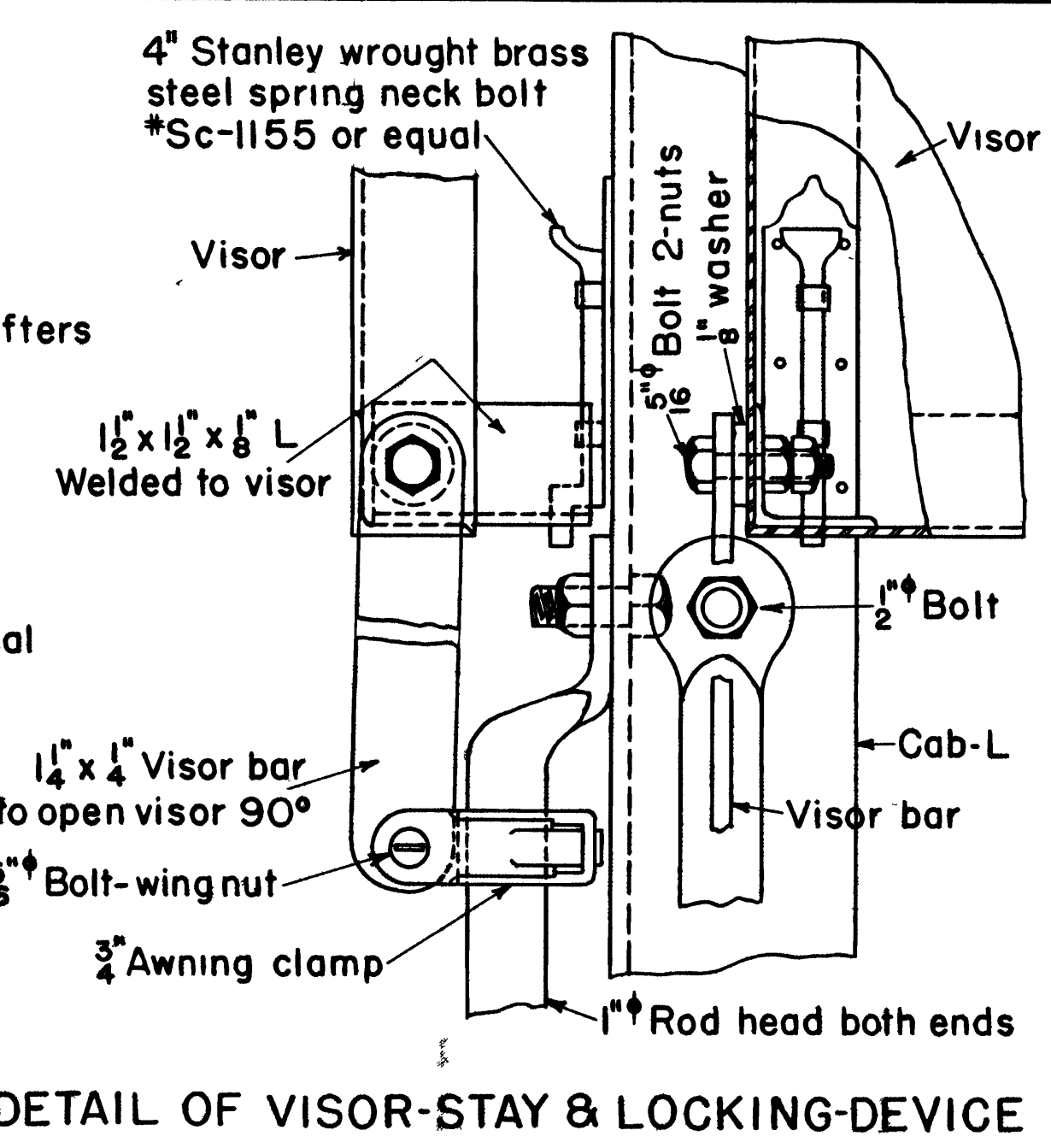
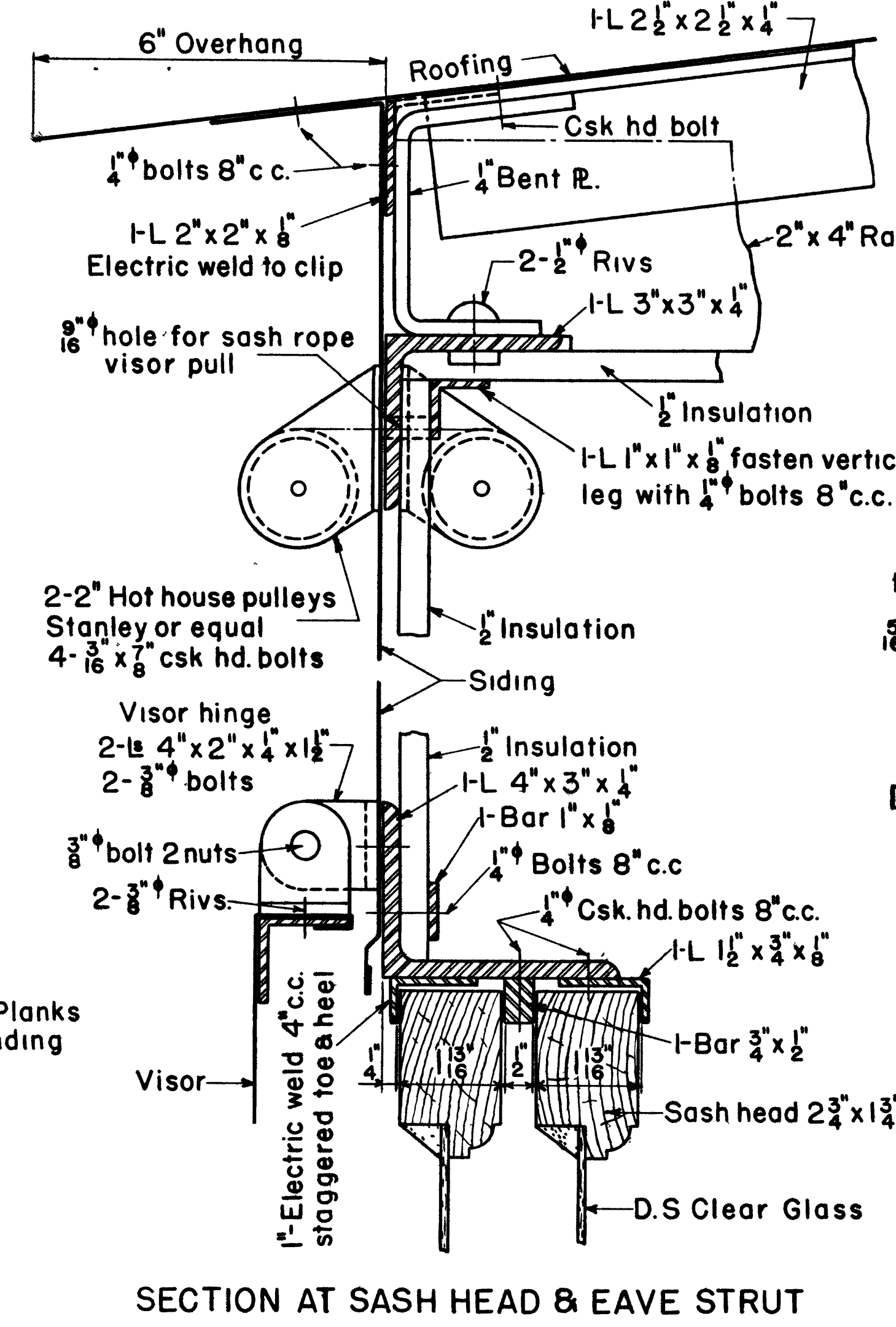
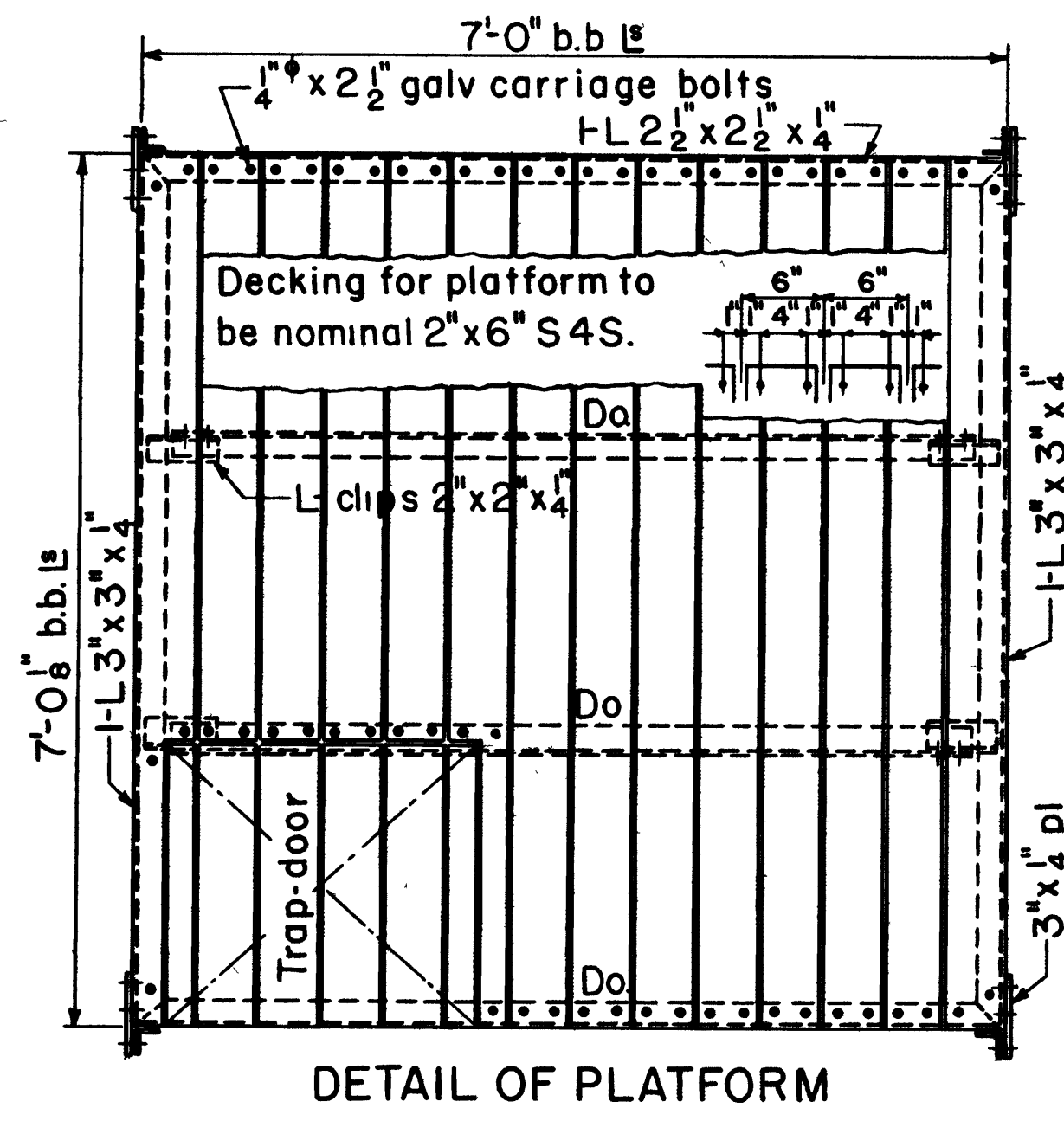
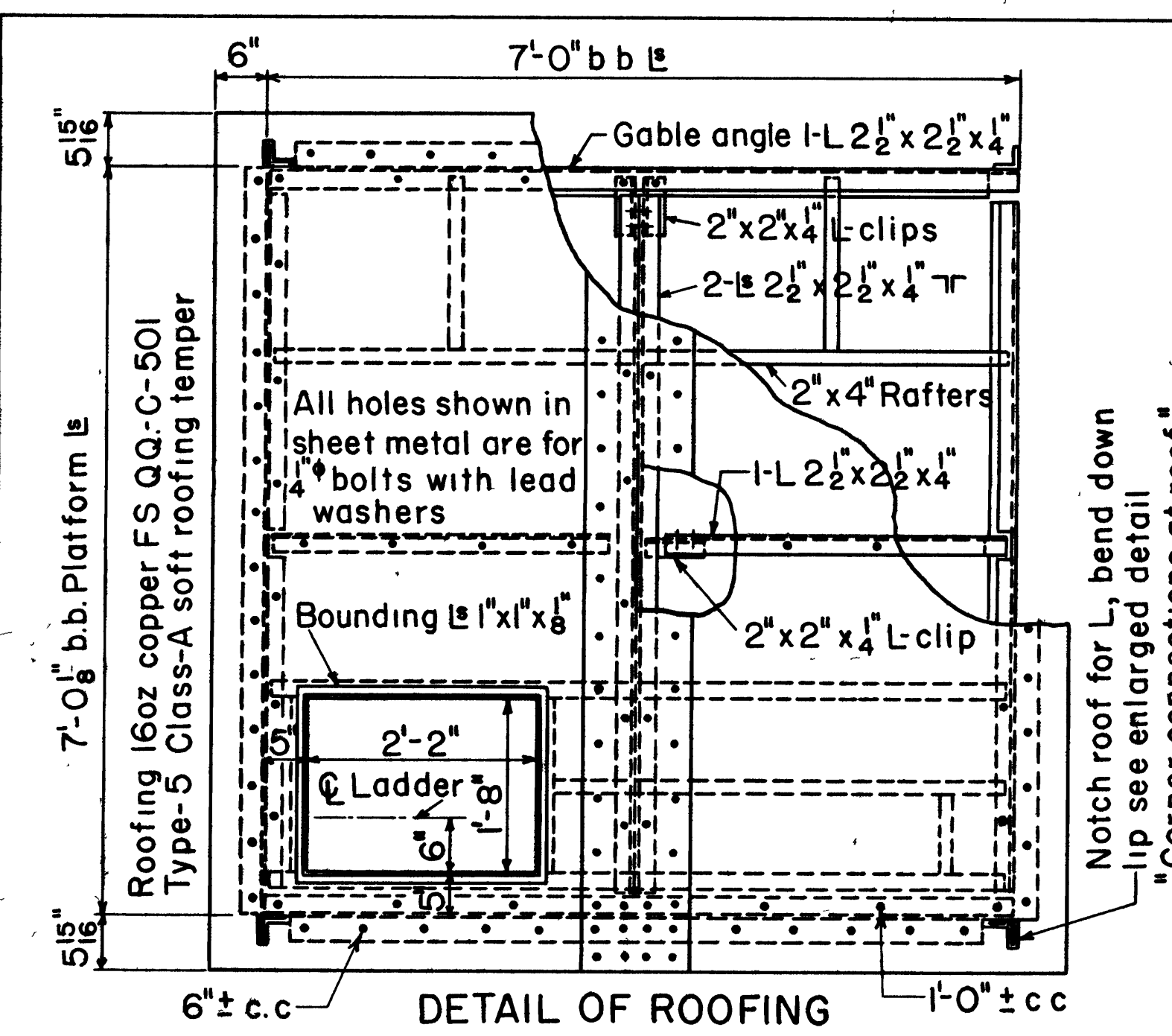
**U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE**

REGION SEVEN J.C. DORT REGIONAL ENGINEER

**STANDARD STEEL LOOKOUT TOWERS**  
30' 41'-3" 54' 67'-6" 82'-6" 99'-9" & 120' HIGH  
CAB SEVEN FEET SQUARE  
CAB DETAILS - FLAT ROOF & PLATFORM

DESIGNED E.G.M. A.H.B. DRAWN A.H.B.  
CHECKED E.G.M. TRACED A.H.B.  
RECOMMENDED FOR APPROVAL DATE August 25-1937  
APPROVED *E.G.M.* REGIONAL ENGINEER

SHEET 4 OF 7  
Original No B 1404 L-1404



NOTES:- Sash 1 1/4" thick securely mortised and pinned, grooved to fit metal guides on sill and fitted to frames to form wind and watertight joints; four lights of clear glass imbedded in putty after priming; cast bronze sash fastener crescent type. Wood for sash, sill and frame may be any one of the following species finished and graded in accordance with the latest rules of the following Associations.  
 White Pine (Pinus Strobus) Northern Pine Manufactures Association, Grade C-Select.  
 Sugar Pine (Pinus Lambertiana) California White and Sugar Pine Manufactures Association Grade C-Select  
 Southern Yellow Pine, Southern Pine Assn. Grade B-VG.  
 Douglas Fir, Sitka Spruce, and Western Red Cedar, West Coast Lumbermans Assn, Grade-B and better, VG-Finish

**U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE**

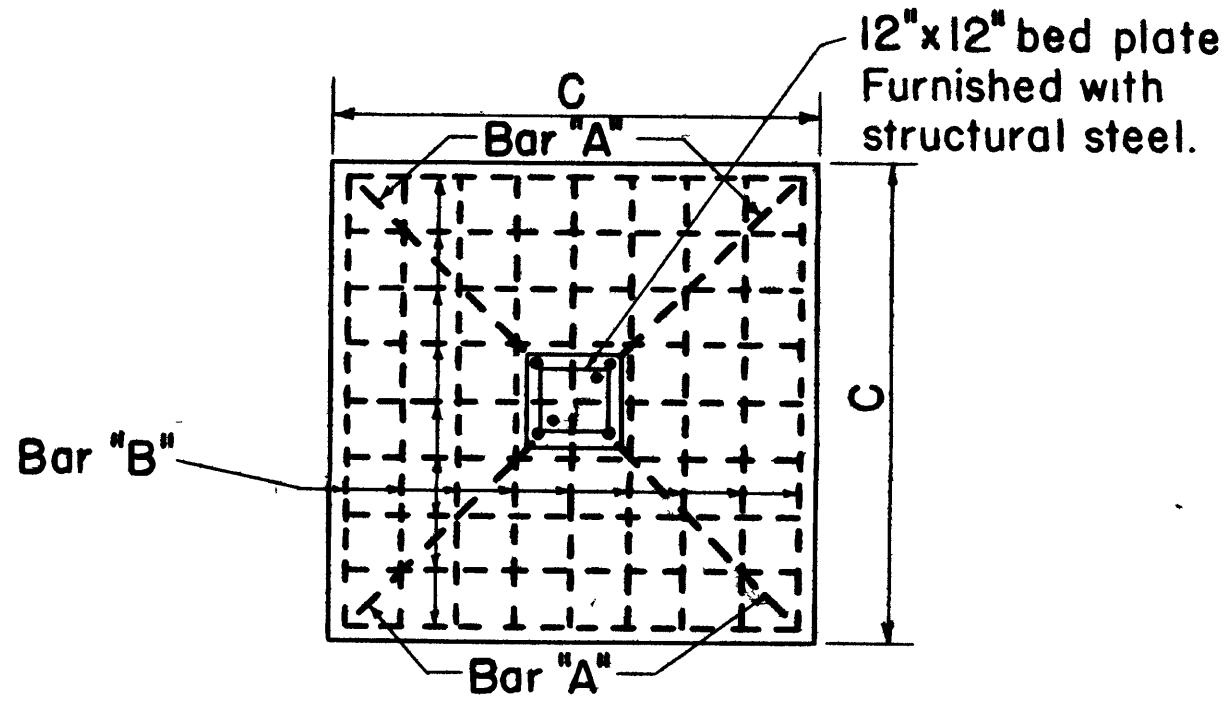
REGION SEVEN J.C. DORT REGIONAL ENGINEER

**STANDARD STEEL LOOKOUT TOWERS**  
30' 41'-3" 54' 67'-6" 82'-6" 99'-9" & 120' HIGH  
CAB SEVEN FEET SQUARE

CAB DETAILS-FLAT ROOF & PLATFORM-WOOD SASH

DESIGNED... E.G.M., A.H.B. DRAWN... A.H.B.  
 CHECKED... E.G.M. TRACED... A.H.B.  
 RECOMMENDED FOR APPROVAL DATE... September 16-1937  
 APPROVED... C.E.M. REGIONAL ENGINEER

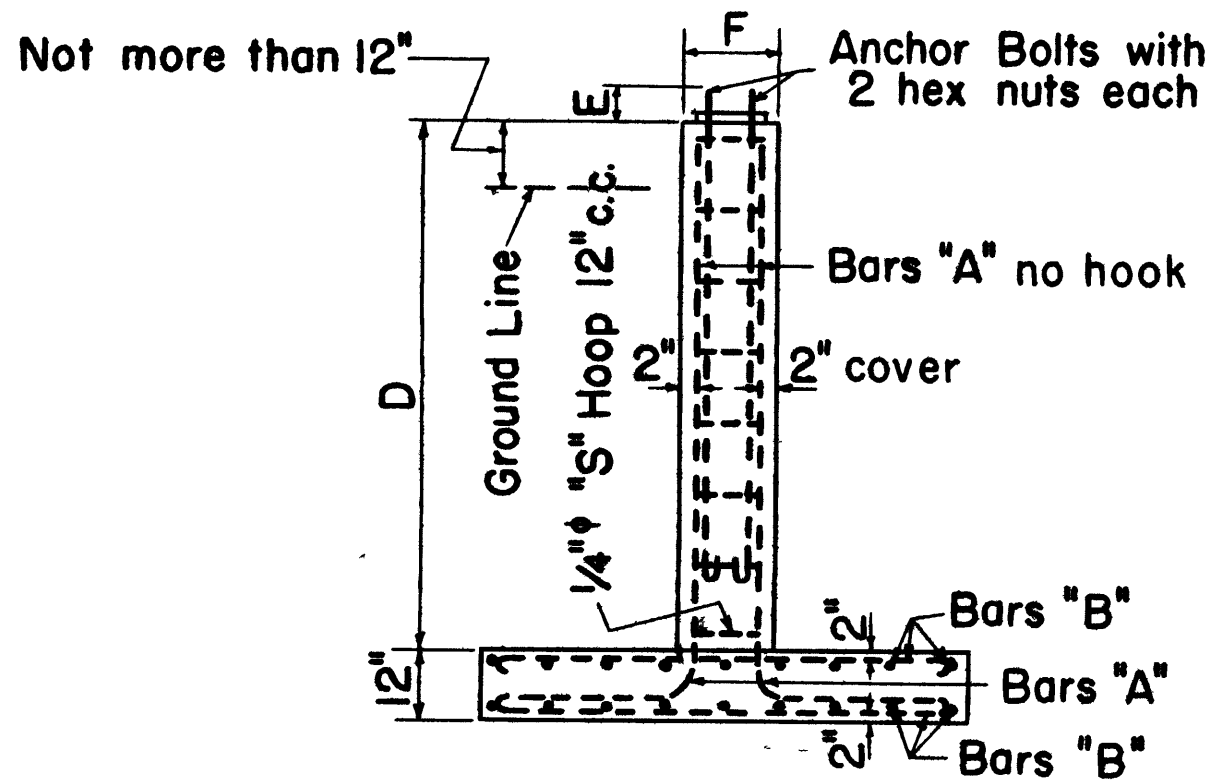
SHEET 5 OF 7



**PIER DIMENSIONS**

Tower Height	A	B	C	D	E	F	G	Cu. ft. Conc.
30'-0"	11'-6 <sup>3</sup> / <sub>8</sub> "	16'-3 <sup>11</sup> / <sub>16</sub> "	4'-6"	5'-0"	3 <sup>3</sup> / <sub>4</sub> "	1'-4"	4 <sup>15</sup> / <sub>16</sub> "	29
41'-3"	13'-2 <sup>3</sup> / <sub>4</sub> "	18'-8 <sup>1</sup> / <sub>2</sub> "	5'-0"	5'-6"	4"	1'-4"	5 <sup>11</sup> / <sub>16</sub> "	35
54'-0"	15'-1 <sup>7</sup> / <sub>8</sub> "	21'-5 <sup>3</sup> / <sub>16</sub> "	5'-6"	6'-0"	4 <sup>1</sup> / <sub>2</sub> "	1'-4"	5 <sup>11</sup> / <sub>16</sub> "	41
67'-6"	17'-2 <sup>5</sup> / <sub>16</sub> "	24'-3 <sup>3</sup> / <sub>4</sub> "	6'-0"	6'-6"	5"	1'-4"	5 <sup>11</sup> / <sub>16</sub> "	48
82'-6"	19'-5 <sup>1</sup> / <sub>2</sub> "	27'-6 <sup>1</sup> / <sub>4</sub> "	6'-6"	7'-0"	5"	1'-4"	7 <sup>1</sup> / <sub>16</sub> "	55
99'-9"	22'-0 <sup>3</sup> / <sub>4</sub> "	31'-2 <sup>3</sup> / <sub>8</sub> "	7'-0"	7'-6"	5 <sup>3</sup> / <sub>4</sub> "	1'-6"	7 <sup>1</sup> / <sub>16</sub> "	66
120'-0"	25'-1 <sup>7</sup> / <sub>16</sub> "	35'-6 <sup>5</sup> / <sub>16</sub> "	7'-6"	8'-0"	6 <sup>1</sup> / <sub>4</sub> "	1'-8"	7 <sup>1</sup> / <sub>16</sub> "	78

Concrete listed is for one pier only

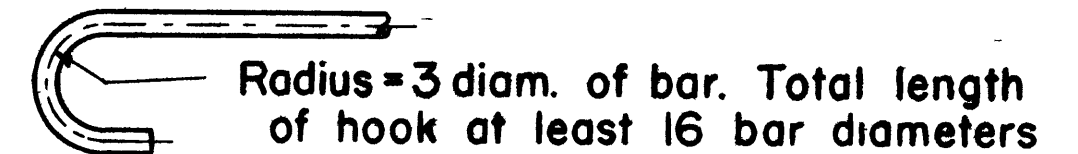


TYPICAL CONCRETE PIER

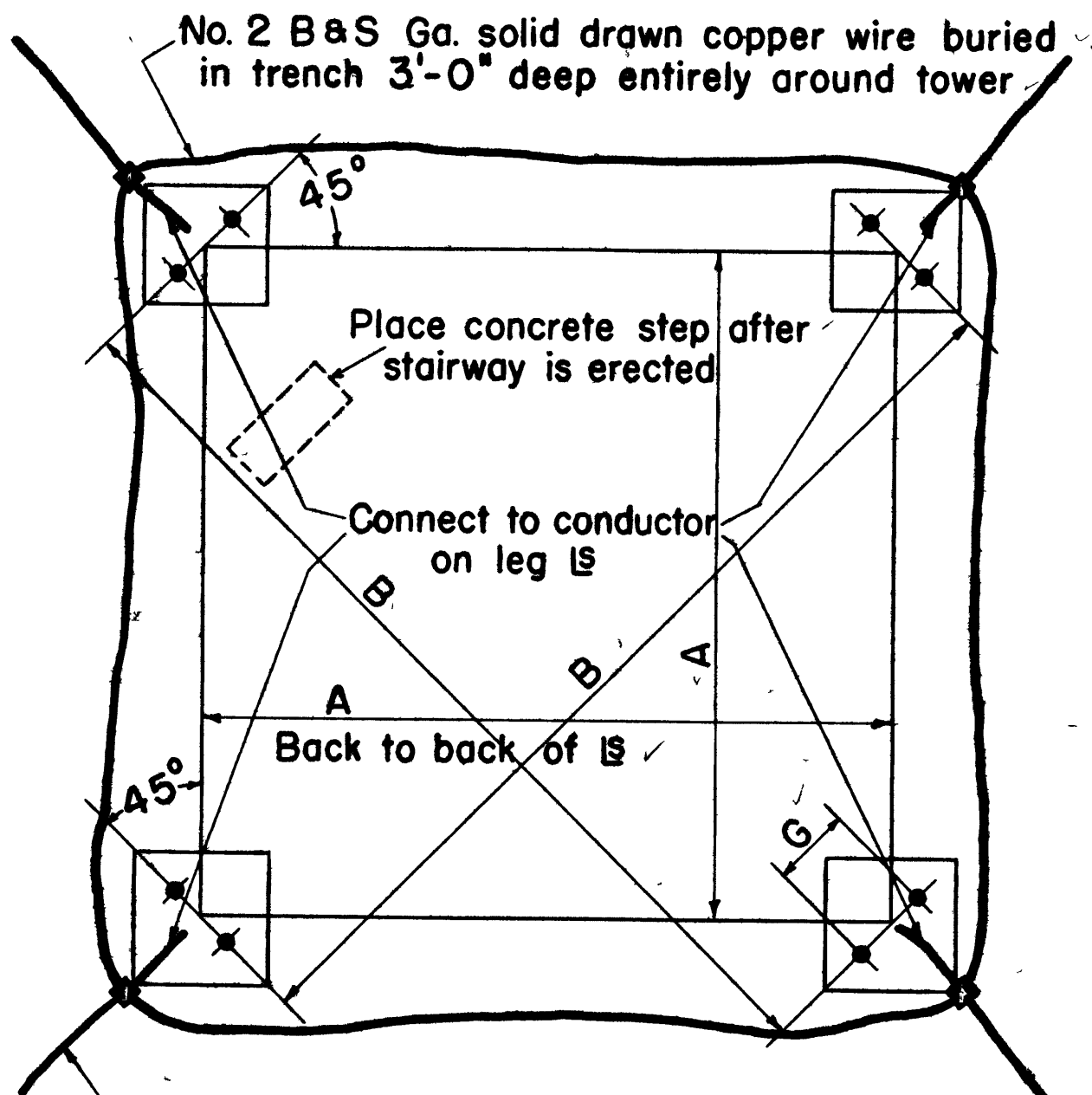
**SCHEDULE OF REINFORCING STEEL**

Tower Height	Bars "A"			Bars "B"			Hoops "S"	Wt. lbs.	Anchor Bolts			
	No	Size	Length	No	Size	Length			No	Diam	Length	Wt. lbs.
30'-0"	4	3/4"	7'-6"	16	1/2"	4'-0"	5	103	2	3/4"	3'-1"	12
41'-3"	4	7/8"	8'-3"	20	1/2"	4'-6"	5	145	2	3/4"	3'-1"	12
54'-0"	4	1"	9'-3"	24	1/2"	5'-0"	6	200	2	7/8"	3'-7"	20
67'-6"	4	1"	10'-0"	28	1/2"	5'-6"	6	263	2	1"	4'-2"	24
82'-6"	4	1 1/8"	10'-9"	32	1/2"	6'-0"	7	298	2	1"	4'-2"	30
99'-9"	4	1 1/4"	11'-6"	40	1/2"	6'-6"	8	453	2	1 1/8"	4'-8"	42
120'-0"	4	1 1/4"	12'-3"	48	1/2"	7'-0"	8	526	2	1 1/4"	5'-2"	57

Note:- Length given is finished length unless noted. Bars "A" = Total length, no hook  
Quantities listed are for one pier only



TYPICAL HOOK

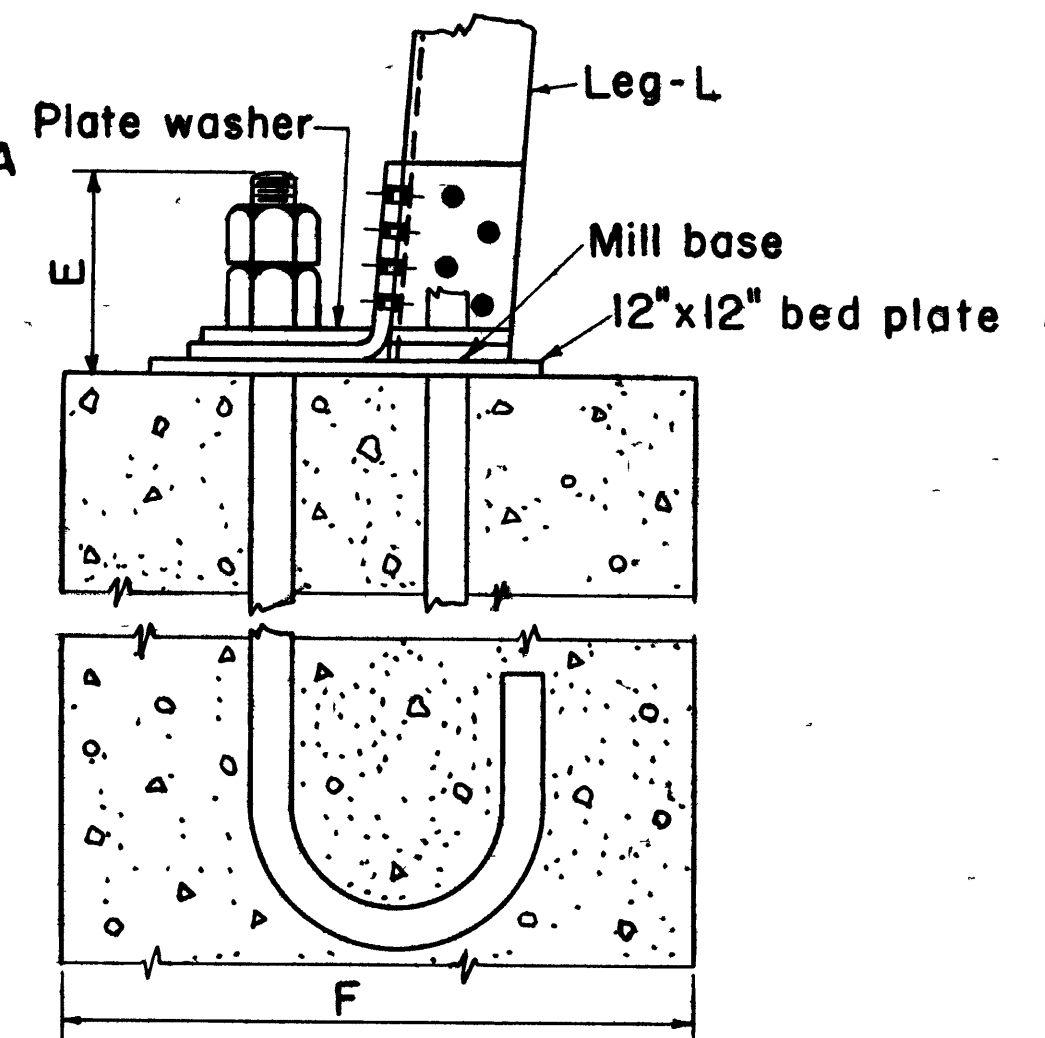


FOUNDATION LAYOUT

Note: Anchor bolts & reinforcing bars shall conform to F.S. QQ-B-71, Grade-1, Class-A  
Anchor bolts & Hoop bars, Type A  
Reinforcing bars Type-B

Concrete Class A 1 1/2 severe  
Mix 1-2-3 (by volume) 6 gal. of water per bag of cement

Paint ends of anchor bolts with one coat of red lead before erecting tower and with a second coat of red lead and a final coat of aluminum after erection



ANCHOR BOLTS IN CONCRETE

U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

REGION SEVEN J. C. DORT REGIONAL ENGINEER

STANDARD STEEL LOOKOUT TOWERS  
30' 41'-3" 54' 67'-6" 82'-6" 99'-9" & 120' HIGH  
CAB SEVEN FEET SQUARE  
FOUNDATION PLAN

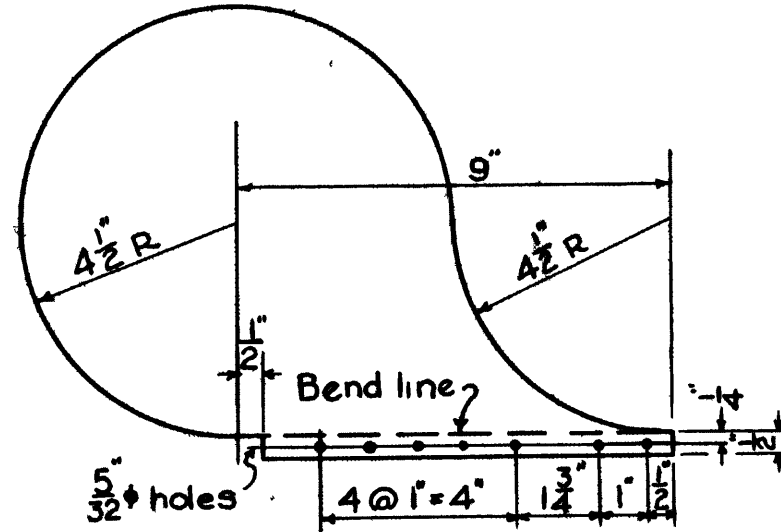
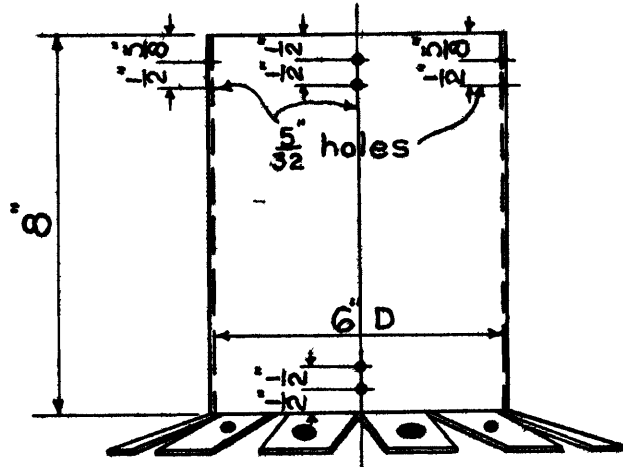
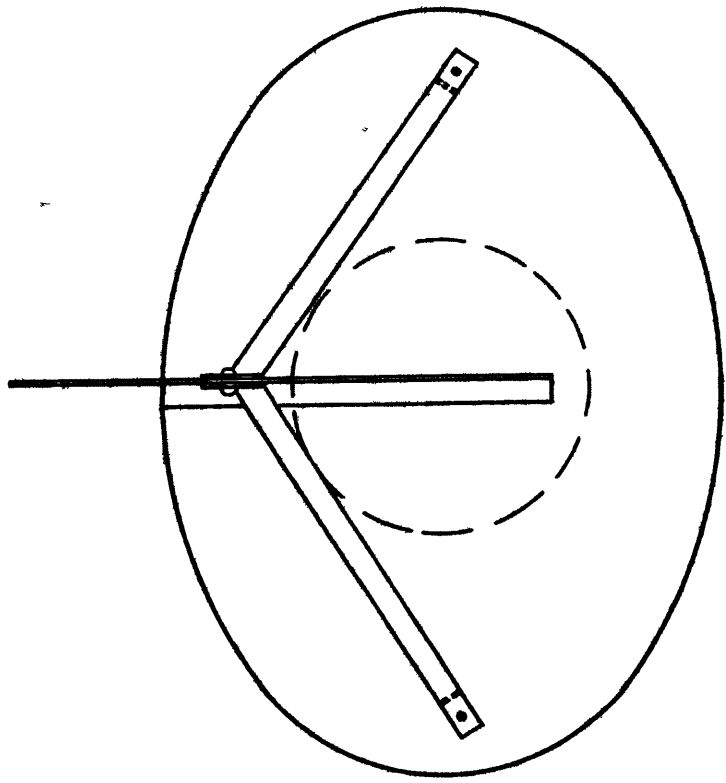
DESIGNED S.A.E. A.E. DRAWN N.L.J. A.M.R. TRACED N.L.J. A.M.R.  
SCALE NONE CHECKED S.R.M.  
APPROVED DATE AUG. 28-1937

273/6

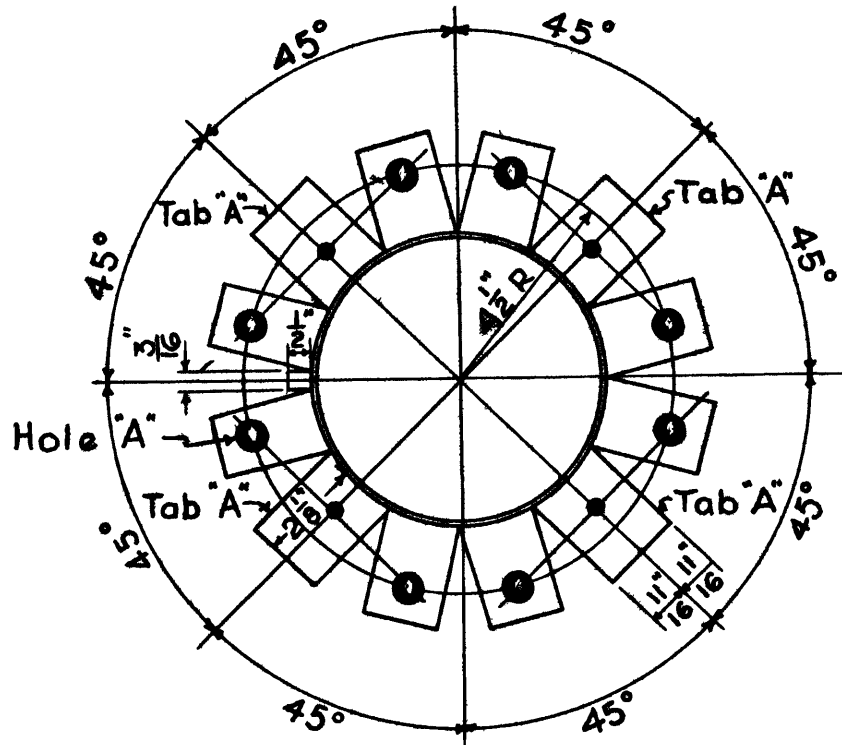
Original No B-0406A

SHEET 6 OF 7

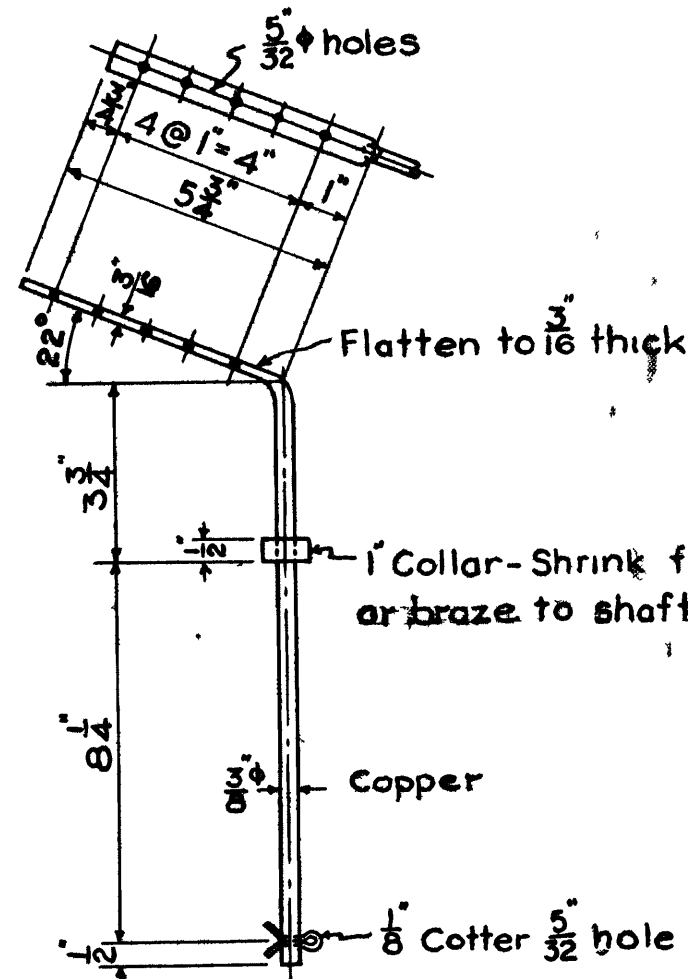
L-1406-3



**TEMPLATE FOR VANE**  
16 oz. copper  
1-Req'd

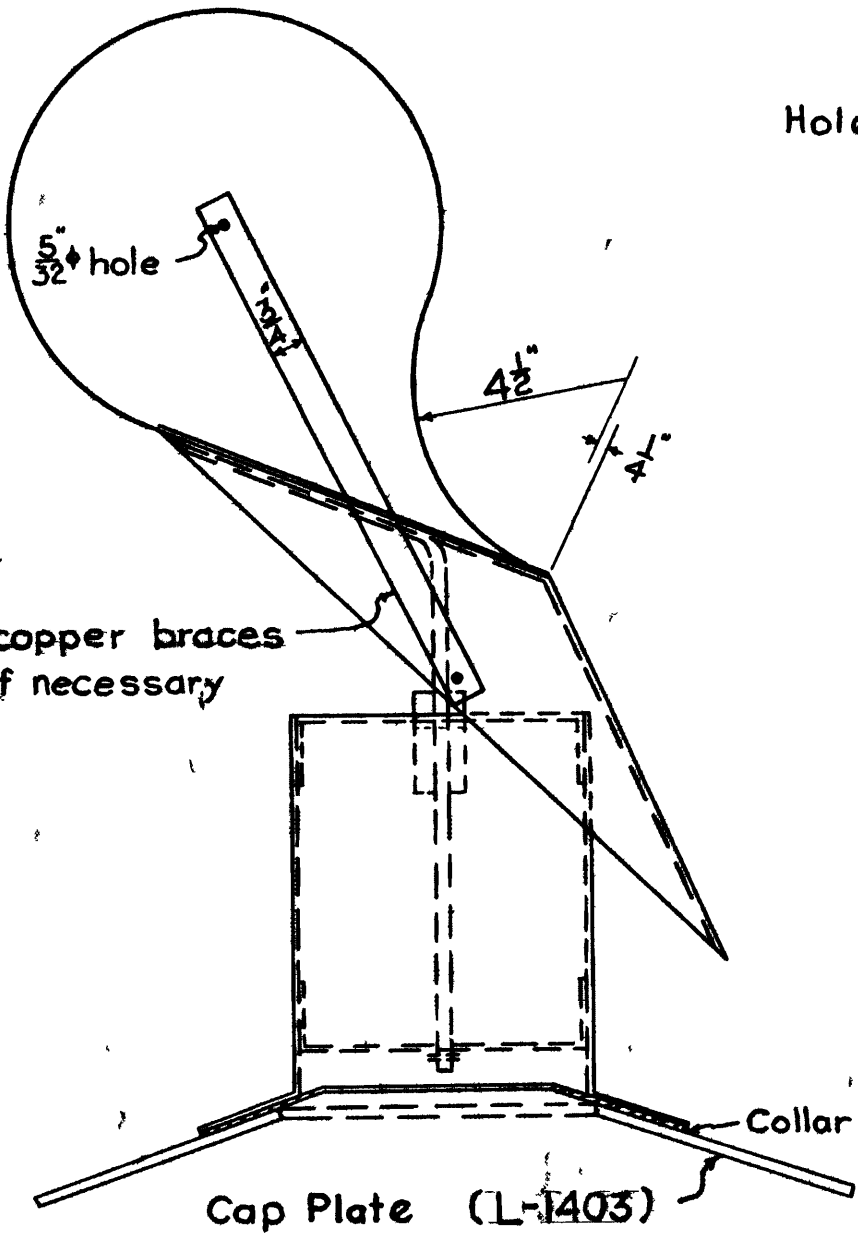


**BASE OF STACK**  
16 oz. copper  
1 Req'd

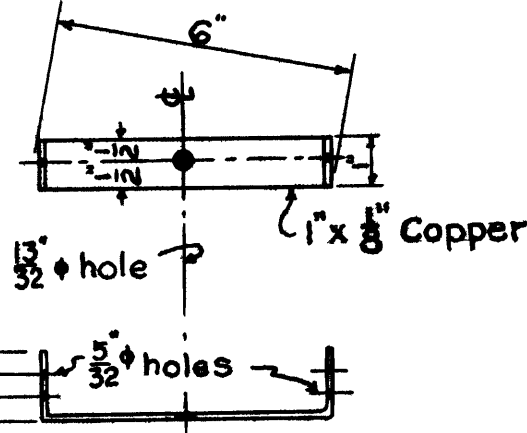


**SPINDLE**  
1-Req'd

16 oz. copper braces  
bend if necessary



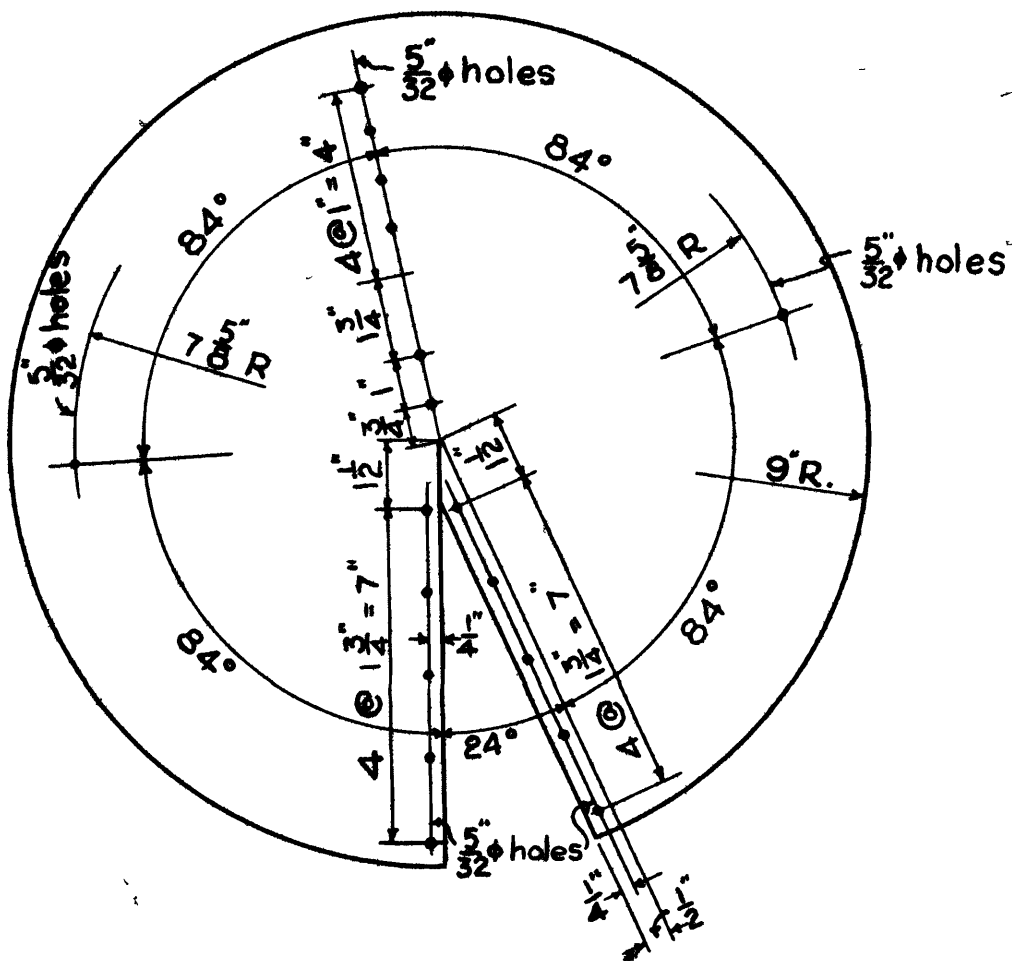
Cap Plate (L-1403)



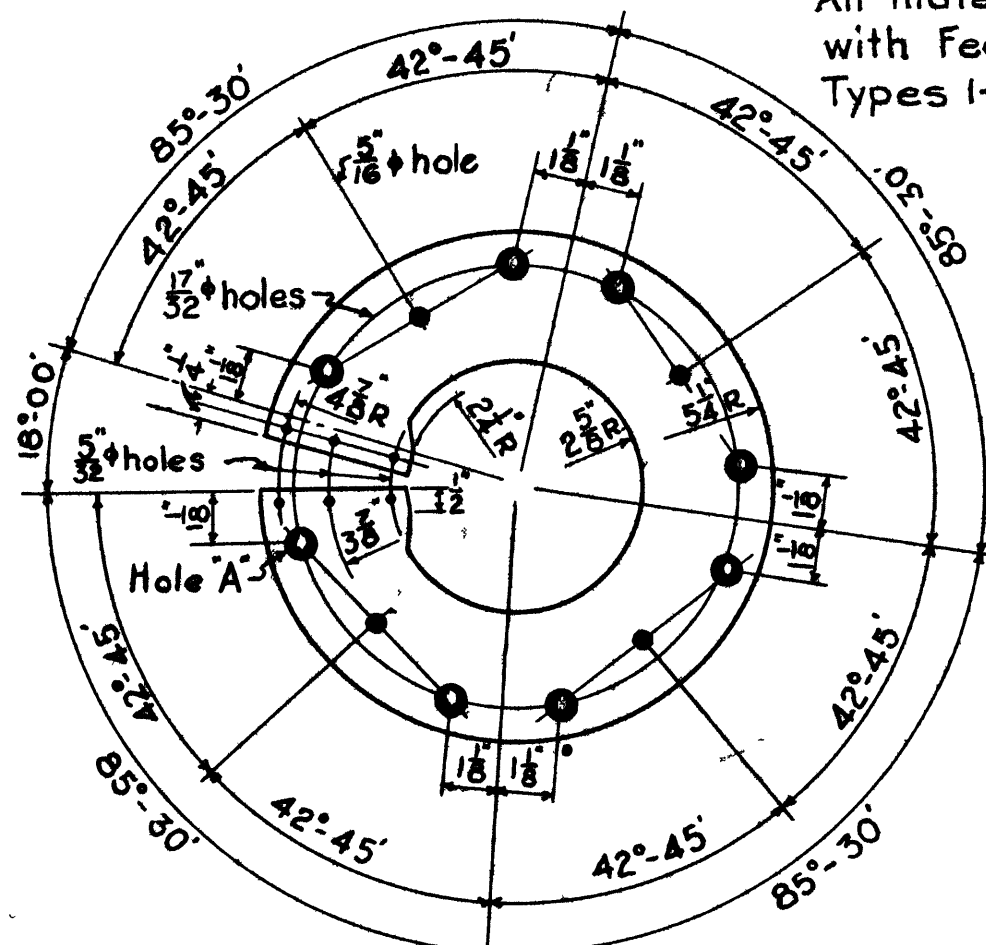
**1x3/8 BEARINGS**  
3 Req'd

Note

Cone, Vane, Bearing R's, Braces & Spindle to be riveted up complete with copper rivets  
All material copper in accordance with Federal Specifications QQ-C-501 Types 1-2 & 5 Class B



**TEMPLATE FOR CONE**  
16 oz. copper  
1-Req'd.



**TEMPLATE FOR COLLAR**  
16 oz. copper  
1-Req'd.

Revised E.G.M. Aug. 25-1937. Material changed from 24 Ga. Galv steel to copper as noted

U. S. DEPARTMENT OF AGRICULTURE FOREST SERVICE	
REGION SEVEN	J. C. DORT REGIONAL ENGINEER
STANDARD STEEL LOOKOUT TOWERS 30' 41'-3" 54' 67'-6" 82'-6" 99'-9" & 120' HIGH CAB SEVEN FEET SQUARE VENTILATOR DETAILS	
DESIGNED W.I.D. M.D.J.	DRAWN H.D.J. TRACED A.A.M.
SCALE 3" = 1'-0"	CHECKED H.D.J.
APPROVED <i>[Signature]</i>	DATE Jan 1935