

**BILL OF MATERIALS**

DIMENSION LUMBER			
10	- 1x8	- 10'	*2 PINE
2	- 2x2	- 10'	FIR
3	- 2x2	- 12'	FIR
4	- 2x4	- 10'	FIR
6	- 2x4	- 8'	FIR
2	- 2x4	- 6'	FIR
1	- 2x4	- 4'	FIR
2	- 2x4	- 8'	OSK
1	- 2x6	- 8'	OSK
2	- 2x6	- 8'	FIR
2	- 1x4	- 7'	*2 PINE
1	- 3/4	- 4x4	PLYWOOD
11	- 2x3	- 2x2	FIR

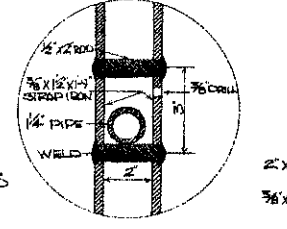
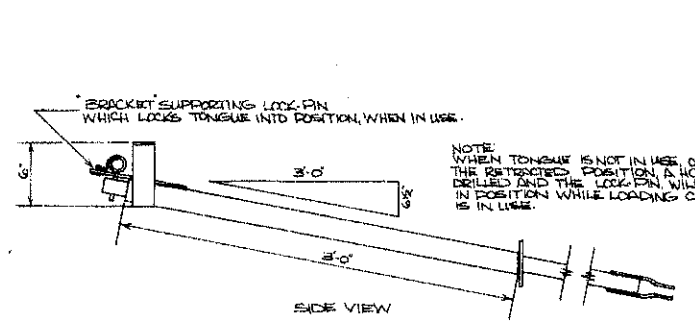
HARDWARE - BOLTS			
8	- 1/4	- 4"	LAG-BOLTS
6	- 3/8	- 2x2"	CARRIAGE BOLT
6	- 3/8	- 2x2"	CARRIAGE BOLT
8	- 3/8	- 2x2"	CARRIAGE BOLT
8	- 3/8	- 2x4"	CARRIAGE BOLT
40	- 3/8	- 3"	CARRIAGE BOLT
4	- 3/8	- 3"	CARRIAGE BOLT
12	- 3/8	- 3"	CARRIAGE BOLT
4	- 3/8	- 3"	CARRIAGE BOLT
33	- 3/8	- 4"	CARRIAGE BOLT
12	- 3/8	- 4"	CARRIAGE BOLT
20	- 3/8	- 4"	CARRIAGE BOLT
24	- 3/8	- 4x2"	CARRIAGE BOLT
4	- 3/8	- 4x2"	CARRIAGE BOLT
24	- 3/8	- 6"	CARRIAGE BOLT
12	- 1/2	- 6x8"	CARRIAGE BOLT
6	- 1/2	- 8"	CARRIAGE BOLT
2	- 3/8	- 3"	LOCK-PINS
1	- 3/8	- 6"	LOCK-PIN

MISCELLANEOUS - IRON			
1	- 2	- 3"	GALV. PIPE
2	- 2	- 4"	GALV. PIPE
1	- 1/2	- 6"	GALV. PIPE
2	- 1/2	- 3"	GALV. PIPE
1	- 1/2	- 3"	GALV. PIPE
1	- 1/2	- 4"	GALV. PIPE
1	- 1/4	- 3"	GALV. PIPE
1	- 1/8	- 3"	STEEL ROD
2	- 3/8x2	- 19"	STRAP IRON
2	- 3/8x3	- 4"	STEEL PLATE
2	- 3/8x4	- 6"	STEEL PLATE
1	- 3/8x4	- 6"	STEEL PLATE
3	- 3/8x2	- 19"	STRAP IRON
2	- 1/4x2	- 6"	STEEL PLATE
3	- 1/4x2	- 18"	STRAP IRON
1	- 1/2x2	- 3"	STRAP IRON
2	- 1/4x2	- 6"	STRAP IRON
6	- 1/4x1 1/2	- 2 1/2"	ANGLE IRON
1	- 1 1/2x2	- 4"	ANGLE IRON
5 1/2	- 8-PENNY		OSK NAILS

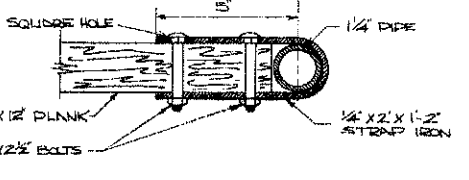
MISCELLANEOUS - IRON			
1	- 2	- 3"	GALV. PIPE
2	- 2	- 4"	GALV. PIPE
1	- 1/2	- 6"	GALV. PIPE
2	- 1/2	- 3"	GALV. PIPE
1	- 1/2	- 3"	GALV. PIPE
1	- 1/2	- 4"	GALV. PIPE
1	- 1/4	- 3"	STEEL ROD
2	- 3/8x2	- 19"	STRAP IRON
2	- 3/8x3	- 4"	STEEL PLATE
2	- 3/8x4	- 6"	STEEL PLATE
1	- 3/8x4	- 6"	STEEL PLATE
3	- 3/8x2	- 19"	STRAP IRON
2	- 1/4x2	- 6"	STEEL PLATE
3	- 1/4x2	- 18"	STRAP IRON
1	- 1/2x2	- 3"	STRAP IRON
2	- 1/4x2	- 6"	STRAP IRON
6	- 1/4x1 1/2	- 2 1/2"	ANGLE IRON
1	- 1 1/2x2	- 4"	ANGLE IRON
5 1/2	- 8-PENNY		OSK NAILS

SIDE VIEW SCALE 3/4"=1'-0"

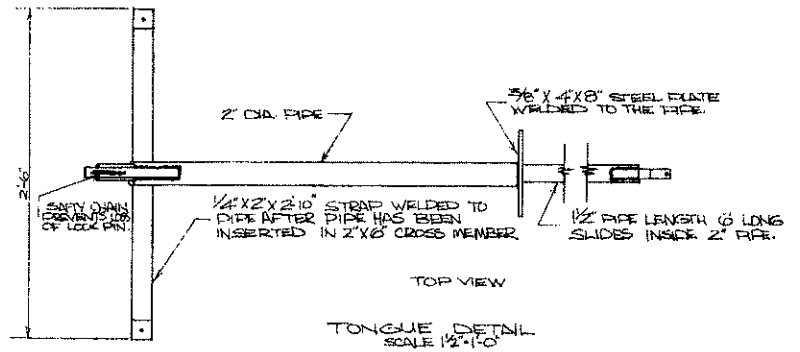
END VIEW SCALE 3/4"=1'-0"



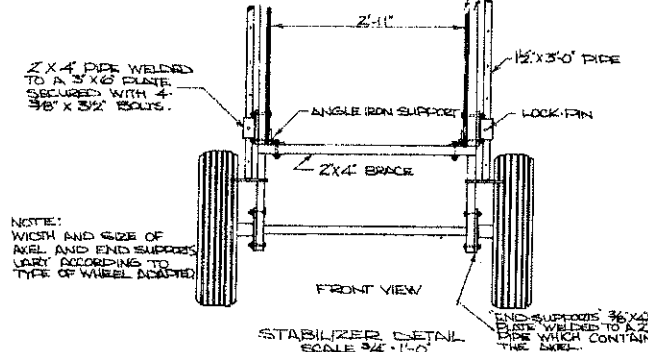
FLOOR ADJUSTMENT DETAIL SCALE 4"=1'-0"



HINGED FLOOR DETAIL SCALE 4"=1'-0"



TONGUE DETAIL SCALE 1/2"=1'-0"



STABILIZER DETAIL SCALE 3/4"=1'-0"

MOVABLE LOADING CHUTE			
NORTH DAKOTA PLAN # N.D. 971-7-4		SCALE	DRAWN BY JZ LEWITSON REVISED
PREPARED BY NORTH DAKOTA STATE UNIVERSITY - AGRICULTURE ENGINEERING DEPT.			
DATE JAN. 21, 1946	APPROVED BY GEO. PRATT	DRAWING NUMBER	1 OF 1

DIMENSION LUMBER

Pieces	Size	Length	Description	
10	1"X8"	10'	#2 Pine	✓
1	1"X4"	14'	#2 Pine	✓
2	2"X12"	10'	Fir	✓
3	2"X12"	12'	Fir	✓
4	2"X4"	12'	Fir	✓
6	2"X4"	5'	Fir	✓
2	2"X4"	6'	Fir	✓
11	2"X3"	2½'	Const.	✓
2	2"X4"	6'	Oak	✓
1	2"X6"	6'	Oak	✓
1	1"X4"	3'	Pine	✓
2	2"X6"	8'	Fir	✓
1	2"X4"	3'	Fir	✓
1	¾" - 4'X4'		Exterior Plywood	✓
4	2"X4"	10'	Fir	

BILL OF MATERIALS  
 MOVABLE LOADING CHUTE  
 SHEET 2 OF 4  
 DRAWN BY R. KNUTSON

IRON MATERIALS

Pieces	Size	Length	Description
1	2"	4'	Galv. Pipe
2	1½"	3'	Galv. Pipe
1	¼"	3½'	Galv. Pipe
1	1½"	6'	Galv. Pipe
2	¾"	6X6"	Steel Plate
1	¾"X1½"	8'	Strap Iron
1	¾"X3"	1'	Steel Plate
1	¼"X4"	2'	Steel Plate
1	¾"X4"	8"	Steel Plate
1	¼"X¼"	1'	Strap Iron
1	¼"X2"	9'	Strap Iron
6	½"X1"	2½'	Angle Iron
1	½"	3'	Rod
1	¼"X2"	15'	Strap Iron

BILL OF MATERIALS  
 MOVABLE LOADING CHUTE  
 SHEET 3 OF 4  
 DRAWN BY R. KNUTSON

HARDWARE

Pieces	Size	Length	Description	
8	1/4"	4"	Lag Screws	✓
12	1/2"	4"	Carriage Bolts	✓
40	3/8"	3"	" "	✓
10	3/8"	2 1/2"	" "	
4	3/8"	3 1/2"	" "	
82	3/8"	5"	" "	✓
8	3/8"	1 1/2"	" "	✓
6	1/2"	8"	" "	✓
12	1/2"	6"	" "	✓
33	3/8"	4"	" "	✓
200	3/8"		Hex Nuts and Washers	
35	1/2"		Hex Nuts and Washers	

BILL OF MATERIALS  
 MOVABLE LOADING CHUTE  
 SHEET 4 OF 4  
 DRAWN BY R. KNUTSON