



Idea Plan Horse Show Rings, Jumps, and Restraining Equipment

No. IP 821-44 Rev

This Idea Plan is intended to provide educational information and ideas concerning various equipment for use with horses. The following attached drawings are based on historical plans and may not meet design and construction standards for your area:

- Horse Show Rings (USDA 6015)
- Horse Equipment (USDA 6014)
- Horse Restraining Stall (PSU 520)
- In-Install Creep Box for Horses (PSU 284)
- Fencing for Horse Corrals (PSU 276)

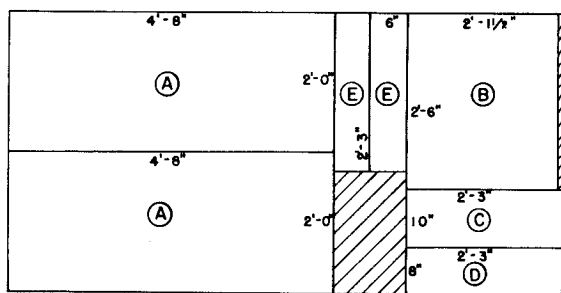
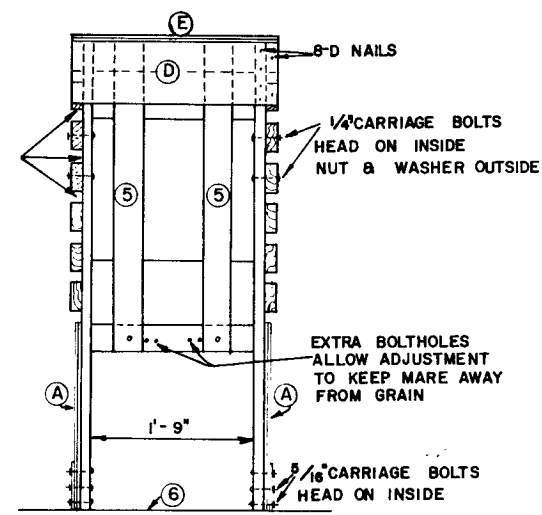
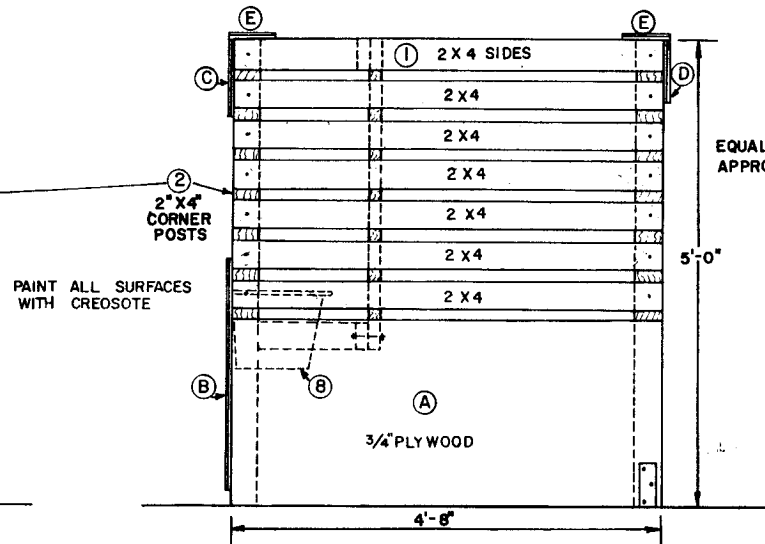
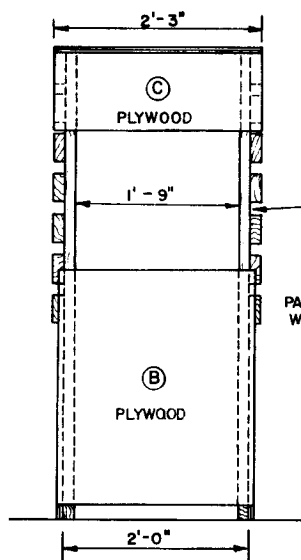
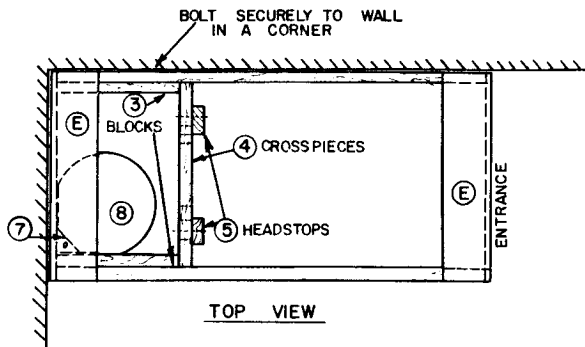
The Department of Agricultural and Biological Engineering at Penn State has a variety of educational material available related to agricultural and biological engineering. This material is intended to help Pennsylvania farmers and others develop buildings and facilities for modern, environmentally-compatible farm facilities. The material can be used in conjunction with county extension staff, builders, suppliers, consulting engineers, the Natural Resources Conservation Service, financial management advisors, farm lenders, veterinarians, and others to assemble a facilities plan suitable for local conditions.

Publications are available in the areas of agricultural safety and health, animal housing systems, building and farmstead planning, crops and greenhouses, machinery systems and tractors, residential housing, soil and water resources, and solid waste management. Contact your county Penn State Extension Office for more information on these subjects. You can also obtain an index of publications concerning the above areas by calling, writing, faxing or e-mailing:

Department of Agricultural and Biological Engineering
246 Agricultural Engineering Building
University Park, PA, 16802-1909
Telephone: 814-865-7685
Fax: 814-863-1031
E-mail: agbioeng@psupen.psu.edu.

This publication is available in alternative media on request.

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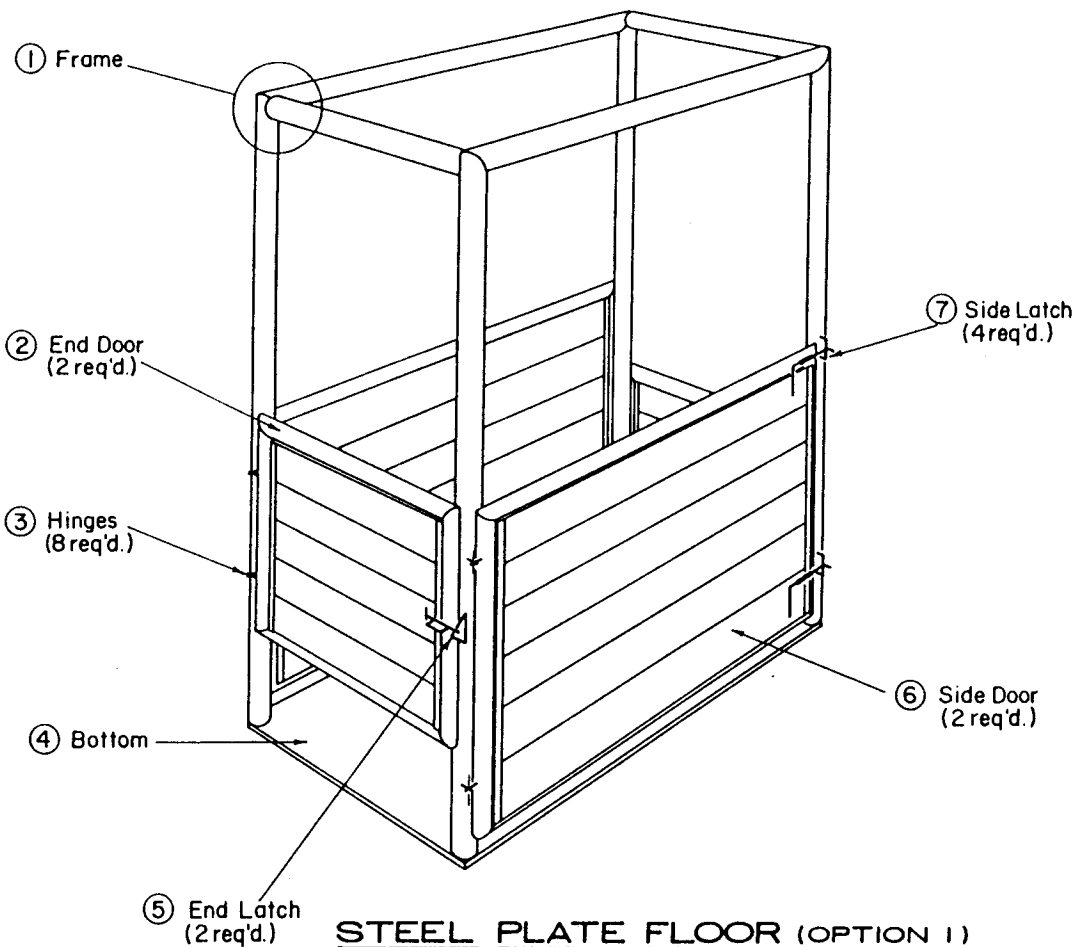
4' X 8' 3/4" EXT. PLYWOOD

MATERIALS REQUIRED

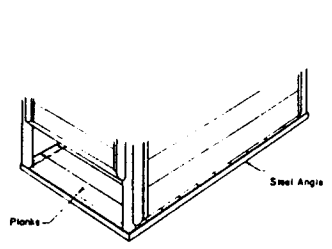
- | | | |
|-------------------------|--------|--|
| 1. SIDES | 14 PCS | 2" X 4" X 4' - 8" |
| 2. CORNER POSTS | 4 PCS | 2" X 4" X 5' - 0" |
| 3. INSIDE BLOCKS | 4 PCS | 2" X 4" X 1' - 2" |
| 4. CROSS PIECES | 2 PCS | 2" X 4" X 2' - 0" |
| 5. HEAD STOPS | 2 PCS | 2" X 4" X 3' - 4" |
| 6. STEEL CROSS BRACE | 1 PC | 1/4" X 2" X 3' - 0" |
| 7. CORNER BRACKET | 1 PC | STEEL TO SUIT |
| 8. FEED BUCKET | | PLASTIC CORNER PAIL FOR HORSES |
| 9. PLYWOOD | | 1 PC 3/4" EXTERIOR CUT AS SHOWN ON DIAGRAM |
| 10. BOLTS AND NAILS | | |
| 11. CREOSOTE FOR FINISH | | |

THE PENNSYLVANIA STATE UNIVERSITY AGRICULTURAL EXTENSION SERVICE		
IN-STALL CREEP BOX FOR HORSES		
DRWN BY: ARG	ORDER NO.	SHEET 1
TRCD BY: AKG	821-284	OF 1
DATE: 8-74		

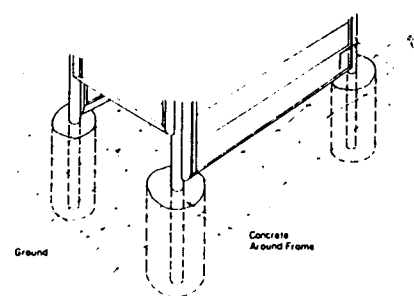
DESIGN BY DEPT. ANIMAL
SCIENCE, PSU



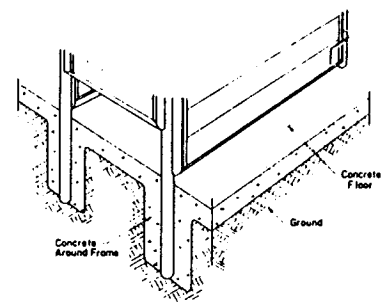
STEEL PLATE FLOOR (OPTION 1)
 (ANCHOR TOP TO BUILDING OR POST TO PREVENT TIP-OVER)



WOOD FLOOR (OPTION 2)
 (ANCHOR TOP TO BUILDING OR POST TO PREVENT TIP-OVER)



DIRT FLOOR (OPTION 3)
 (W/ CONCRETE AROUND FRAME)



CONCRETE FLOOR (OPTION 4)
 (W/ CONCRETE AROUND FRAME)

Use: This stall will safely restrain mares during breeding preparation, such as genital organ examinations, Caslick operations, artificial insemination and hygiene procedures. The stall should be located near the breeding area out of site of other horses. A small foal holding pen constructed in front of the restraining stall allows the mare to keep her head near the foal thus preventing many disturbances among mares with foals at side. This stall is designed so that it can be opened from either side to free the horse if needed. The stall may also be used to restrain a horse for other purposes.

The stall must be securely anchored to prevent movement and possible tip over of the unit by a nervous horse. Portable versions should be chained to a sturdy pole or post during use.

Construction: Safety for both the horse and persons working on the horse is important. High quality materials and construction techniques must be used when building this Horse Restraining Stall. The weight and strength of a horse can exert tremendous forces on the stall and its gates, latches and joints.

Construct all gates and latches to avoid pinch points, rough edges or places that a horse could get a leg or other body part wedged in. There should be no space between gates and support posts on either hinge or latch ends.

MATERIALS LIST

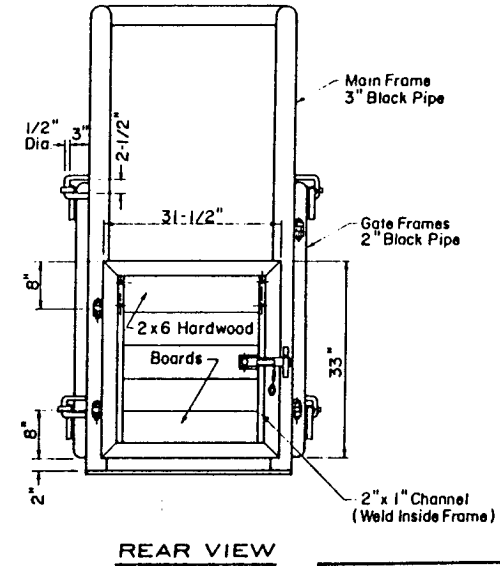
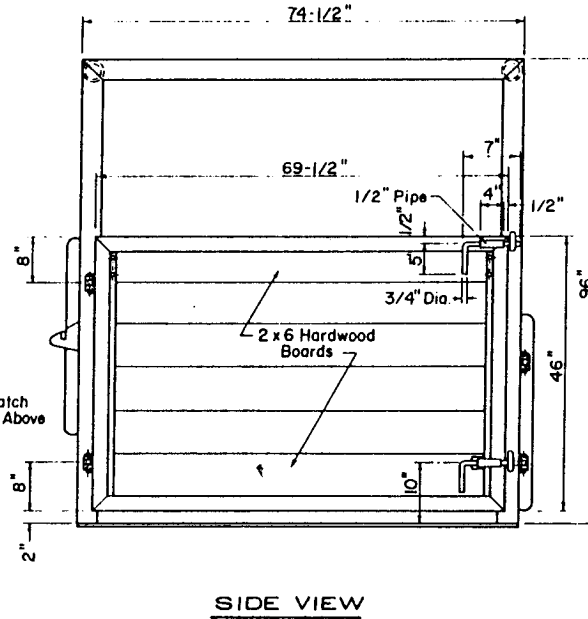
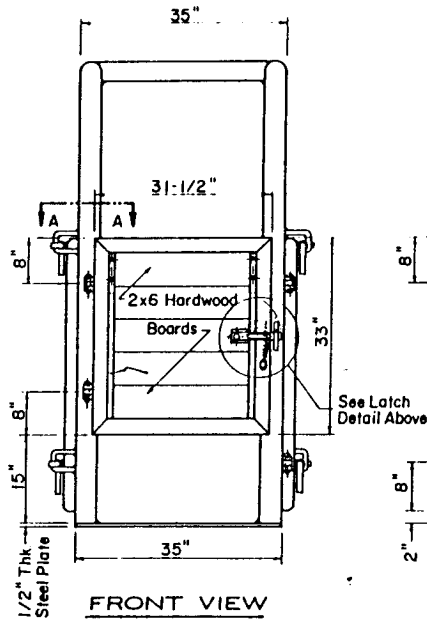
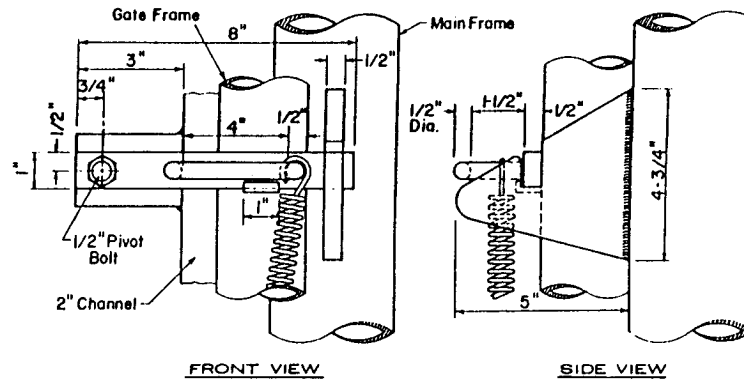
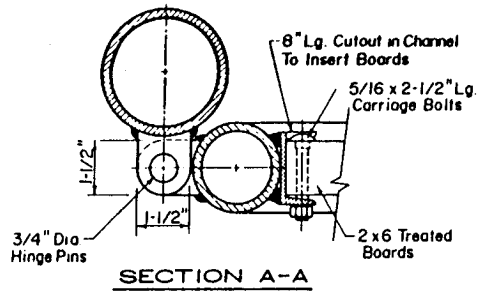
1 Frame		4 Pieces	3" pipe, sch 40 black iron 96" or 120"
		2 Pieces	3" pipe, sch 40 black iron 32"
		2 Pieces	3" pipe, sch 40 black iron 74 1/2"
2 END DOORS (2)		4 Pieces	2" pipe, sch 40 black iron 31 1/2"
		4 Pieces	2" pipe, sch 40 black iron 33"
		4 Pieces	2" x 1" channel, mild steel channel 42"
		12 Pieces	2 x 6 plank, hardwood 28"
		8 each	5/16" x 2 1/2" carriage bolts with nuts
3 HINGES (8)		24 Pieces	3/8" x 1 1/2" x 2" mild steel
		8 Pieces	3/4" x 2" machine bolt with nut
4 BOTTOM		1 Piece	35" x 75" x 3/4" steel plate
		1 Piece	30" x 75" x 1/2" rubber mat
		-or-	
		2 Pieces	2" angle, mild steel 74 1/2"
		2 Pieces	2" angle, mild steel 32"
		14 Pieces	2 x 6 plank, hardwood 32"
		-or-	
			dirt or concrete
5 END LATCH (2)		2 Pieces	catch plate, mild steel 3/8" x 4 3/4" x 5"
		2 Pieces	latch bar, mild steel 3/8" x 1" x 8"
		2 Pieces	handle, 1/2" round bar mild steel
		2 Pieces	bearing plate, mild steel 3/8" x 1 1/2" x 5"
		2 Pieces	latch stop, 3/8" x 1 1/2" x 1"
		2 Pieces	pivot bolt, 1/2" x 1" machine
		2 Pieces	spring, 5"
6 SIDE DOOR (2)		4 Pieces	2" pipe, sch 40 black iron 69 1/2"
		4 Pieces	2" pipe, sch 40 black iron 46"
		4 Pieces	2" x 1" channel, mild steel 42"
		12 Pieces	2 x 6 plank, hardwood 64"
7 SIDE LATCH (4)		4 Pieces	catch, 1/2" round bar mild steel 9"
		4 Pieces	latch bar, mild steel 3/4" x 16"
		4 Pieces	latch bearing, steel pipe 1/2" x 4"

ORDER NO. 821-520

THE PENNSYLVANIA STATE UNIVERSITY
AG. ENG. DEPT.
 UNIVERSITY PARK, PA. 16802

— AG. ENG. EXTENSION —
HORSE RESTRAINING STALL

DESIGN BY: JPG®	SCALE: -None-	SHT. NO. 1 OF 2
DRAWN BY: W.K.M.		
DATE: 3/21/85		

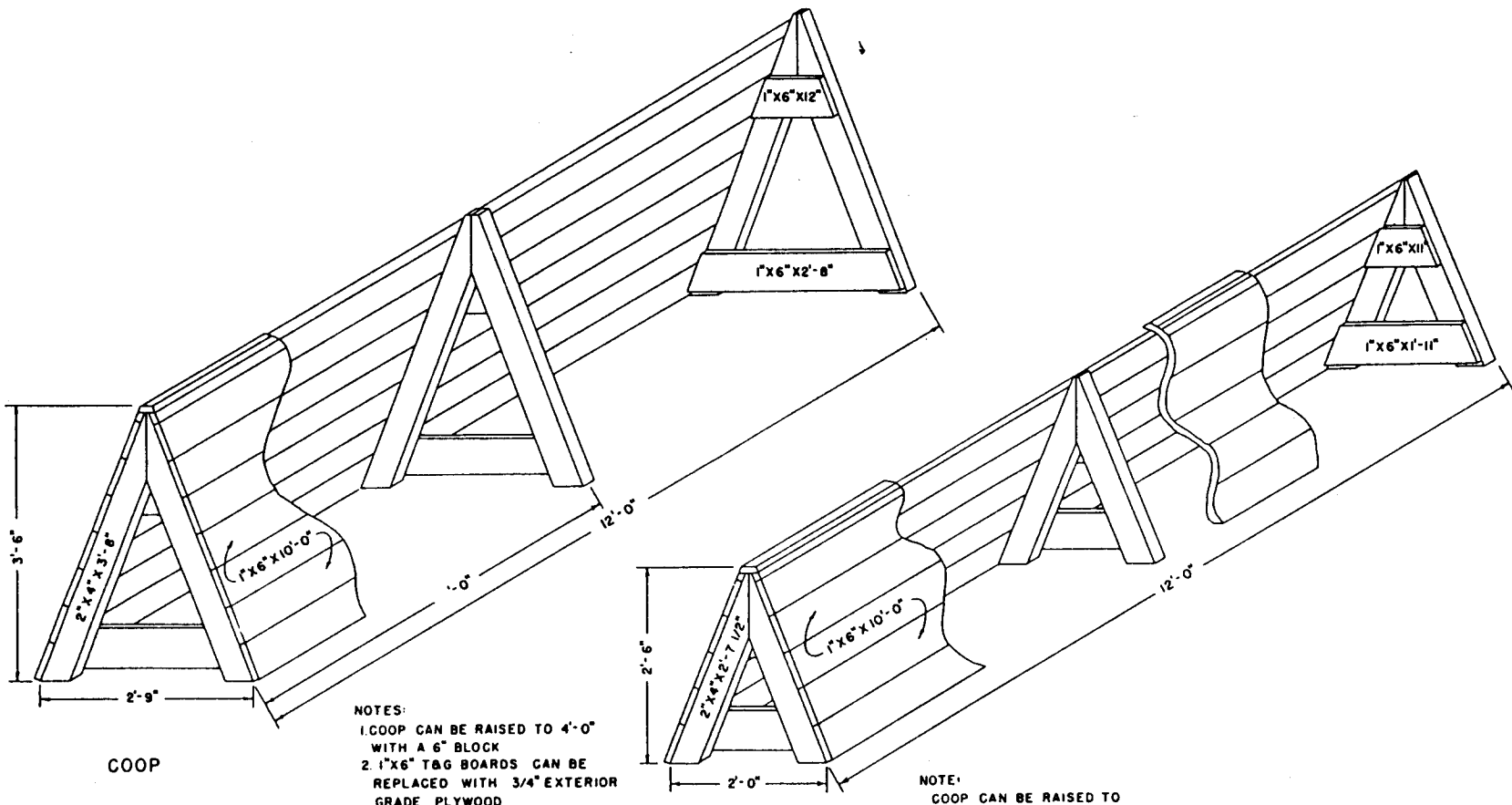


821-520

THE PENNSYLVANIA STATE UNIVERSITY
AG. ENG. DEPT.
 UNIVERSITY PARK, PA. 16802

— AG. ENG. EXTENSION —
HORSE RESTRAINING STALL

DESIGN BY: J.P.G. & REG.	SCALE	SHT. NO.
DRAWN BY: W.K.M.	See Details	2 OF 2
DATE: 3/21/85		



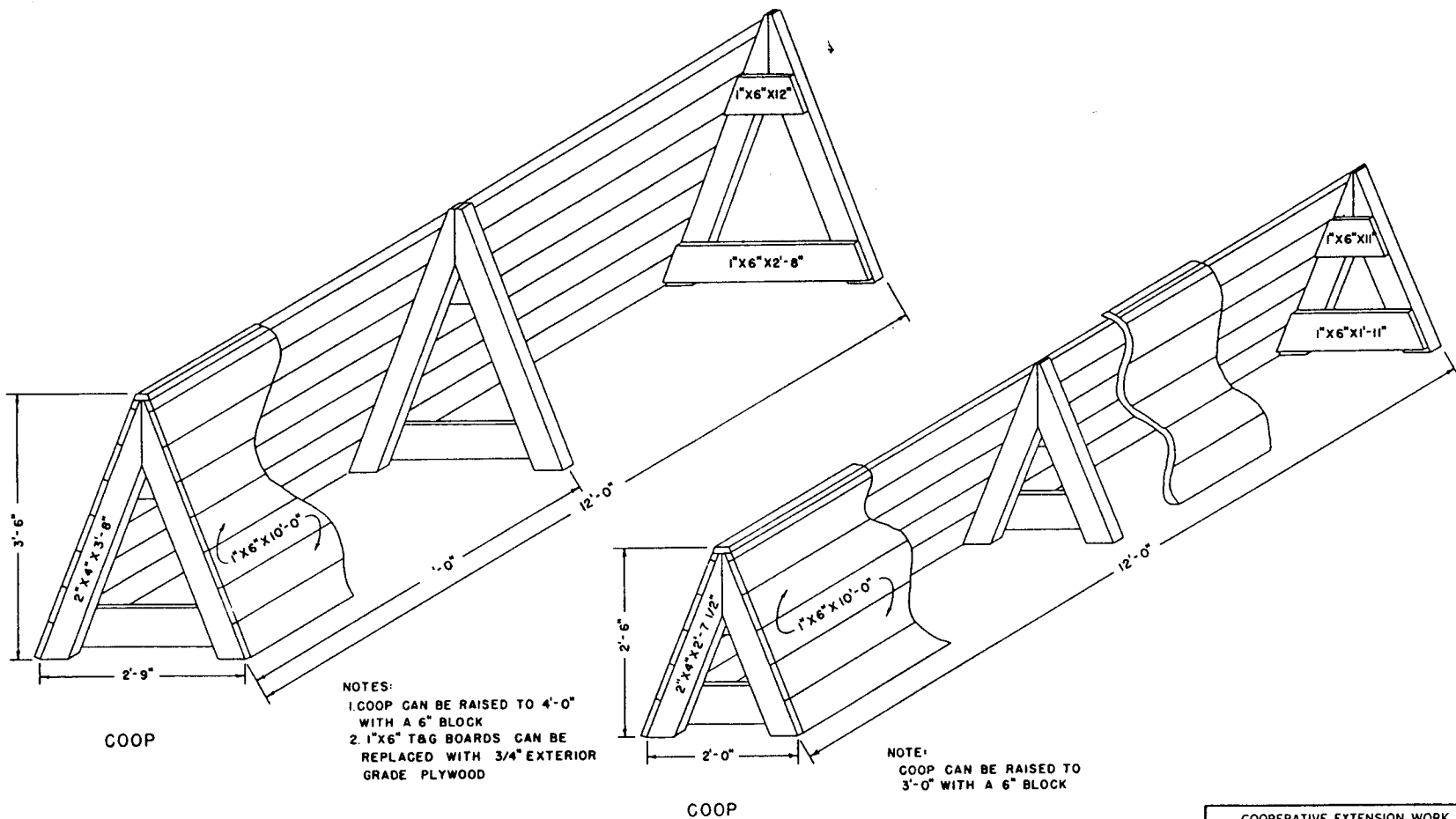
COOP

- NOTES:
1. COOP CAN BE RAISED TO 4'-0" WITH A 6" BLOCK
 2. 1"X6" T&G BOARDS CAN BE REPLACED WITH 3/4" EXTERIOR GRADE PLYWOOD

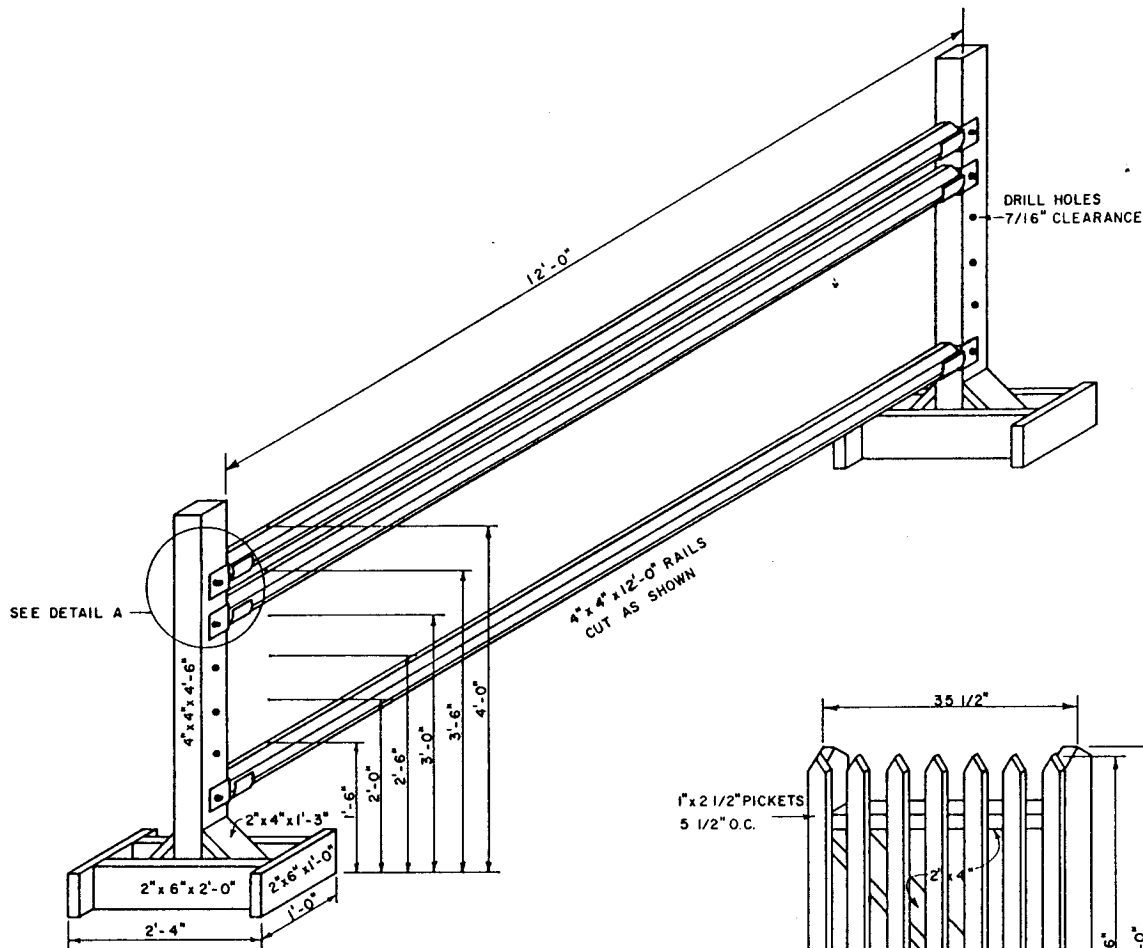
COOP

NOTE:
COOP CAN BE RAISED TO 3'-0" WITH A 6" BLOCK

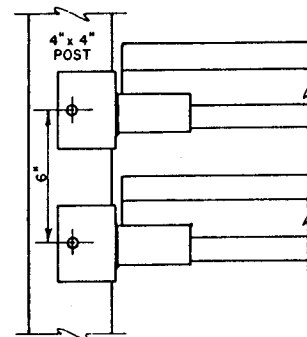
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS		
THE PENNSYLVANIA STATE UNIVERSITY		
AND UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING		
HORSE EQUIPMENT		
VA. '67	EX. 6014	SHEET 1 OF 4
ORDER NO. 821-6014		



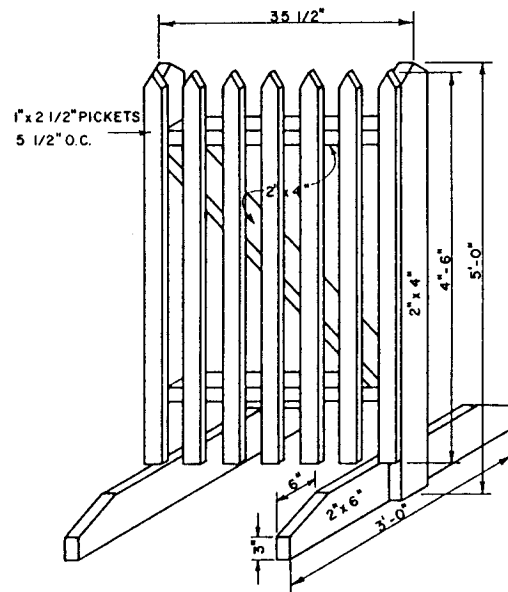
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HORSE EQUIPMENT		
VA. '67	EX. 6014	SHEET 1 OF 4
ORDER NO. 821 - 6014		



WHITE RAIL JUMP

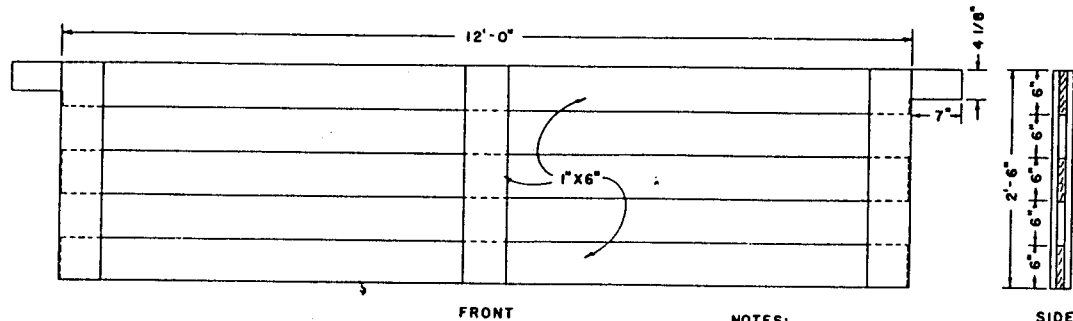


DETAIL A



WING

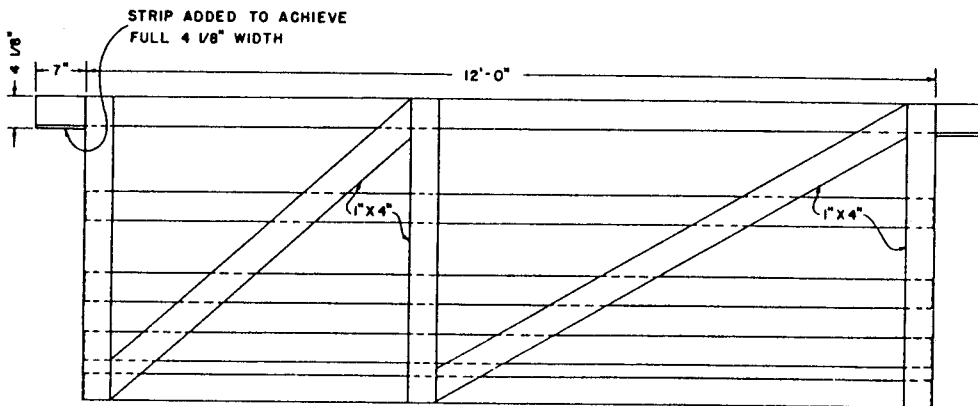
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HORSE EQUIPMENT		
VA. '67	EX. 6014	SHEET 2 OF 4
ORDER NO. 821-6014		



FRONT

SIDE

NOTES:
1. GATE SIZE ADJUSTED FOR USE WITH WHITE RAIL JUMP POST.



FRONT

GATE

NOTES:

1. GATE SIZE ADJUSTED FOR USE WITH WHITE RAIL JUMP POST
2. FOR FINISHED LUMBER A 1" X 4" WILL BE 3 5/8" WIDE. A 1/2" STRIP WILL BE NECESSARY TO ACHIEVE THE FULL 4 1/8" WIDTH.

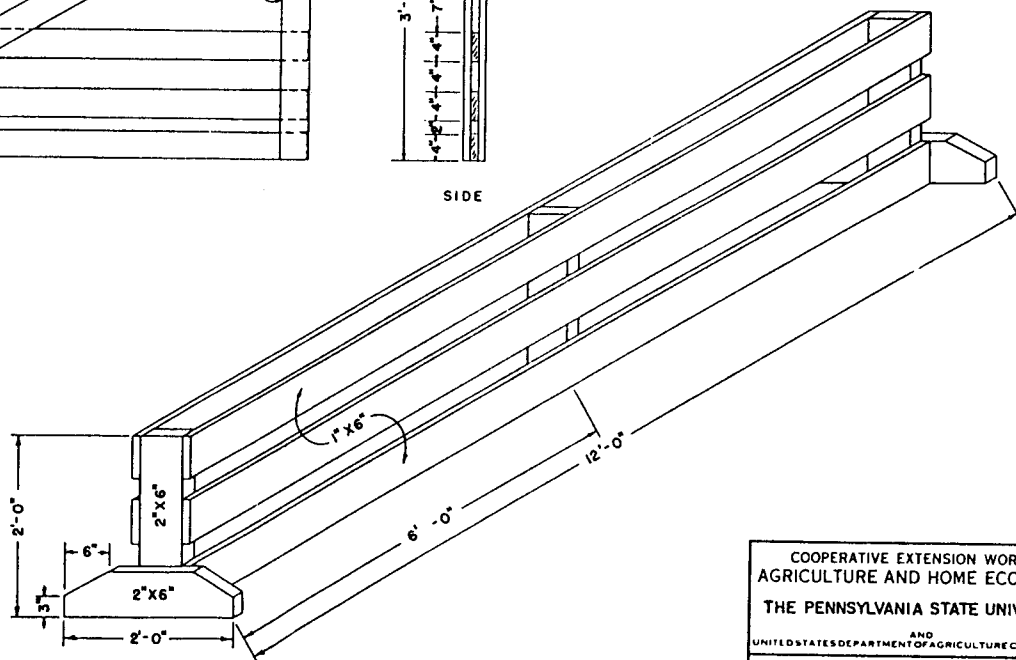
PLANK



SIDE

NOTES:

1. 2' STAND MAKES A 2'-6" BRUSH JUMP WHEN THE REQUIRED 6" OF BRUSH IS ADDED
2. JUMP MAY BE RAISED TO 3'-0" BY SETTING ON 6" BLOCKS
3. A 3'-6" JUMP CAN BE MADE BY USING 3'-0" UPRIGHTS, AND 4, 1" X 6" BOARDS ON EACH SIDE SPACED 10" O.C.



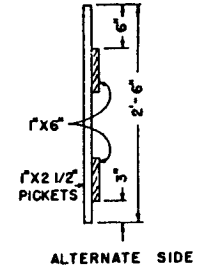
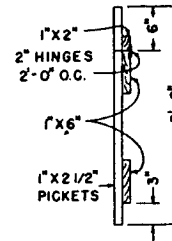
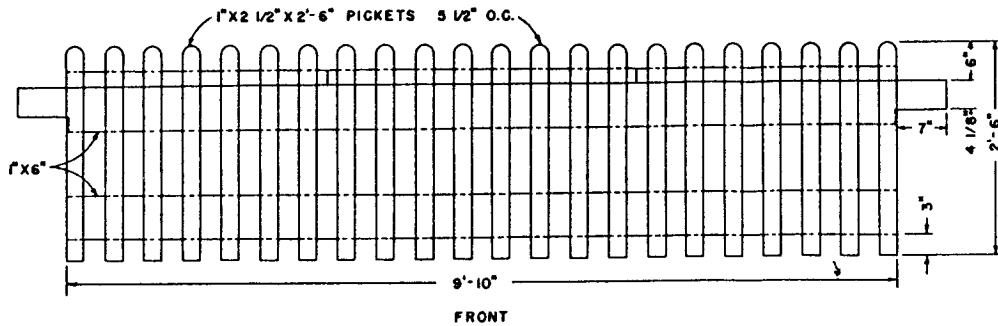
BRUSH JUMP

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UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

HORSE EQUIPMENT

VA. '67 EX. 6014 SHEET 3 OF 4

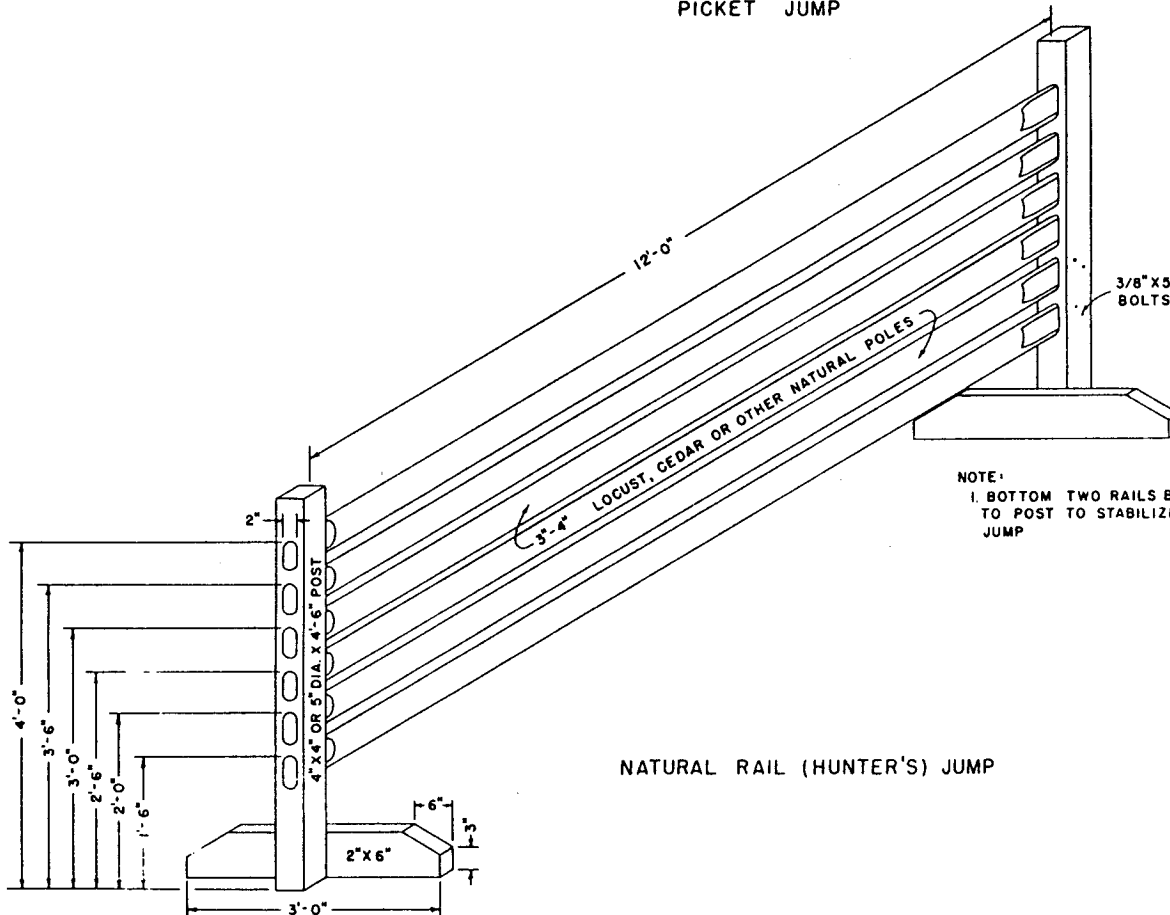
ORDER NO. 821-6014



PICKET JUMP

NOTE:

- SEVEN PICKETS ON EACH END & EIGHT PICKETS IN THE CENTER HINGED AS SEPARATE UNITS

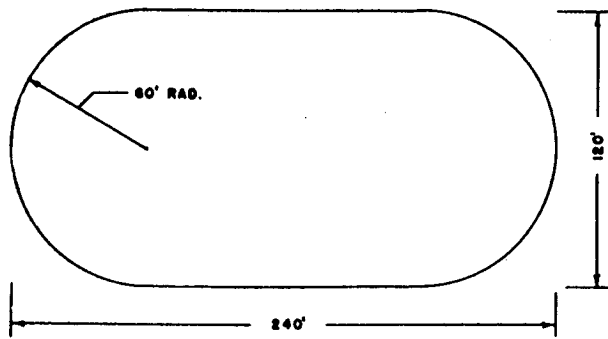


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UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

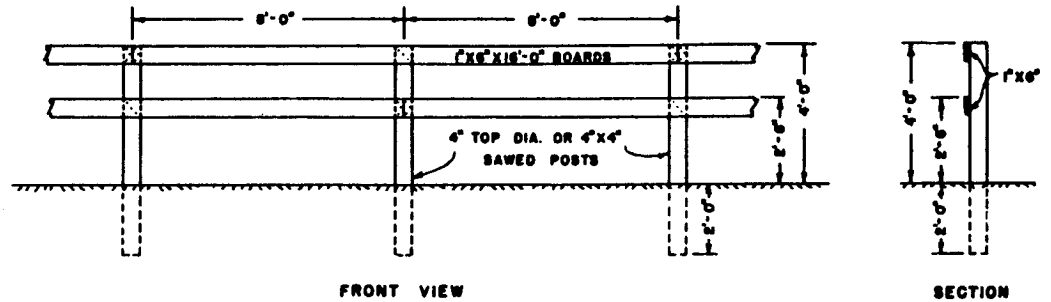
HORSE EQUIPMENT

VA. '67 EX. 6014 SHEET 4 OF 4

ORDER NO. B21-6014



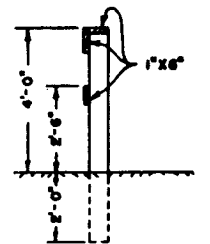
OUTDOORS



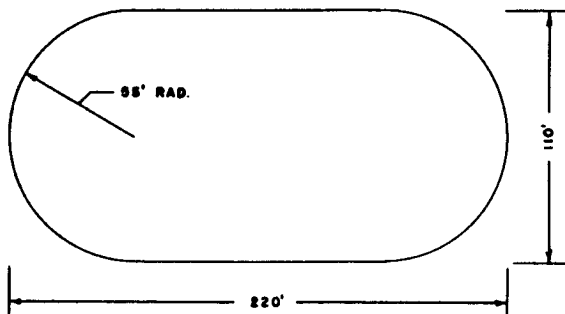
FRONT VIEW

SECTION

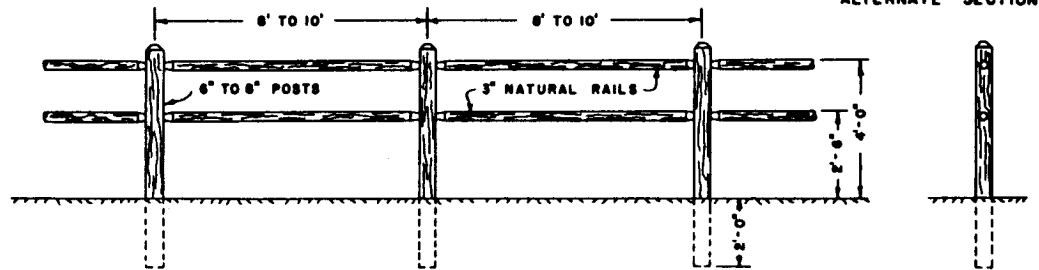
BOARD FENCE DETAIL



ALTERNATE SECTION



INDOORS



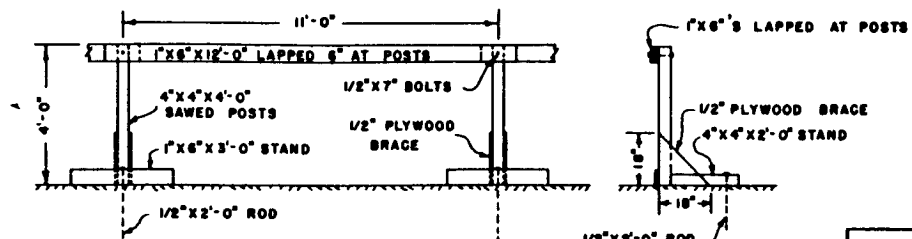
FRONT VIEW

SECTION

NATURAL RAIL FENCE DETAIL

HORSE SHOW RINGS

SIZES RECOMMENDED BY THE NATIONAL HORSE SHOW ASSOCIATION



FRONT VIEW

SECTION

MOVABLE FENCE DETAIL

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THE PENNSYLVANIA STATE UNIVERSITY
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UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

HORSE SHOW RINGS

VA. '67 EX. 6015 SHEET 1 OF 1

ORDER NO. 821-6015

V.P.I. VA. PLAN D-1.41