



UNIVERSITY OF IDAHO

*College of Agriculture*

# PLANS FOR IDAHO FARM BUILDERS

**Department of Agricultural Engineering**

LIBRARY  
UNIVERSITY OF IDAHO

---

**AHO Agriculture  
Extension Service**

**Bulletin No. 236  
May 1955**

---

## Plans Available

	Page
<b>Land Development and Irrigation</b>	
Soil Testing .....	3
Irrigation .....	3
<b>Machinery and Equipment</b>	
Crop Machinery .....	3
Livestock and Dairy Machinery .....	5
Vehicles .....	5
Tools and Shop Equipment .....	5
Pumps and Pumping Equipment .....	6
Construction Machinery .....	6
<b>Power</b>	
Transmission Mechanisms .....	6
Water Power .....	7
Electrical Applications .....	7
Automotive Applications .....	7
<b>Buildings</b>	
Construction Details .....	7
Fireplaces and Incinerators .....	8
Dwellings and Fixtures .....	8
Livestock Buildings .....	13
Farm Products Storage .....	17
Equipment and Supplies Storage .....	19
Manufacturing and Processing Buildings .....	20
Livestock Equipment .....	20
Miscellaneous Buildings .....	21
<b>Structural Equipment</b>	
Ventilation .....	22
Refrigeration and Cooling .....	22
Sanitation and Water Supply .....	23

Material in this publication was assembled by  
**W. R. FRIBERG**

Associate Professor of Agricultural Engineering, University of Idaho,  
and Associate Agricultural Engineer, Agricultural Experiment Station.

**P**LANS listed in this bulletin are available from the Department of Agricultural Engineering, University of Idaho, Moscow. Order by file number. Plans are mailed within 48 hours after receipt of order, unless unusual circumstances prevent it. The prices shown are minimum, and cover only the cost of printing. Please include payment with the order.

These plans have been designed to fit the needs of many people and many conditions throughout the State; therefore,

the individual will sometimes find it desirable to alter the plan to suit particular requirements. The Department of Agricultural Engineering technical assistance as possible, but limitations of money prohibit drawings or making others will also be recommended that the assistance of local engineers and architects be utilized whenever considerable or on-the-spot technical advice is needed.

# Plans for Idaho Farm Builders

## Land Development and Irrigation

### Soil Testing

#### File Number

#### Price

.2151-1	Soil Auger — For removing large core of soil. Detail and assembly drawings.....	0.20
---------	---	------

### Irrigation

.231 -1	Sloping Debris Screen — Gravity flow self-cleaning screen to remove trash from irrigation water for sprinkler systems. Capacities up to 650 GPM.....	0.30
.231 -2	Sprinkler Irrigation Debris Screen — For use in irrigation ditches to remove debris before use in sprinkler irrigation system. Water from pump is used for cleaning screen.....	0.30
.231 -3	Cippolletti Weir — Working drawings for a weir box with cippolletti weir.....	0.30
.231 -4	Submerged Orifice — Working drawings for bulkhead, box and orifice for measuring irrigation water.....	0.30
X .2314-3	Automatic Head Gate Canvas Dam.....	No Charge

## Machinery and Equipment

### Crop Machinery

X .3110-2	Double Drill Hitch — One support wheel. Welded construction.....	No Charge
X .3110-3	Harrow Cart Hitch — Four wheel folding cart for easy transportation through farm gates.....	No Charge
.3113-1	Roller for Peat Lands — Farm-made roller for use on peat lands; timber frame, rolls made of oil barrels filled with concrete. 6' 2" wide.....	0.20
.3114-1	Field Drag — Light-weight drag made of timber and iron rod. 9' wide x 22' long.....	0.10
.3114-2	Leveler Float — For leveling and smoothing land. Developed by the USDA Bureau of Reclamation. Wood construction, 8' 8" wide x 22' long.....	0.30
.3114-3	Rotating Fresno — Scraper for moving earth, made of boiler plate and standard structural steel shapes. Capacity $\frac{3}{8}$ cubic yard.....	0.10
X .3124-1	Seed Potato Cutter and Sterilizer — Motor driven rotary blade; hot water or chemical bath.....	No Charge
.3124-1A	Potato Knife Sterilizer — Tank for motor driven rotary blade; hot water or chemical bath.....	0.10
X .3124-2	Seed Potato Cutter — Two hand-operated swinging knives, spring mounted on hinged bar. For use at work table.....	No Charge
.3124-3	Seed Potato Treater — Sheet metal hopper for treating solution; elevator for lifting treated potatoes out of hopper into sack. Electric motor powered, but adaptable to manual operation. Portable. 2' 6" x 5' x 4' 4" overall.....	0.30
.3140-1	Moisture Tester for Grass Ensilage — Made of 2" pipe and 3" angle iron.....	0.20



## ORDER PLANS BY NUMBER

File Number		Price
.3142-1	Potato Sorter, 31" x 14"— Capacity, 4 grades; power driven; 5-man crew. Metal pipe apron.....	0.30
.3142-2	Potato Hopper — Rope apron. Bill of materials. Wood construction.....	0.20
.3142-3	Potato Sorter 13' 6" x 3' 4" x 3' 4"— Stationary; 3 grades; 5-man crew. Motor driven. Wood construction. Iron bar apron.....	0.30
.3142-4	Simplot Potato Washer 14' x 6' x 5' 8"— V-tank type, 3 horsepower drive. Tank dimensions, 12' 8" x 4' 6" x 3' 10". Metal bar conveyor.....	0.30
.3142-5	Rose-type Potato Washer — Small, V-tank type. Tank dimensions, 6' x 5' x 2' 6". Metal bar conveyor.....	0.30
X .3142-6	Potato Piler (Knudsen type) — Maximum elevation 12 feet; mounted on rubber tires; counter balanced swing frame. Iron rod apron.....	No Charge
.3142-7	Potato Sorter (Malcolm type) — Power driven rubber belts carry potatoes past sorters to sackers. Variable speed.....	0.30
.3143-1	Seed Potato Cutter — Fixed blades, swinging block. Cuts potato into 2, 4, 6, or 8 pieces; capacity 10 sacks per hour; 2-man crew; simple wood construction; 7' long, 2' wide, 30" high.....	0.30
X .3151-2	Small Portable Sprayer — Cylindrical steel tank mounted on skids. Small gasoline engine, pump, and controls mounted on top of tank. Shows assembly only; not a working drawing.....	No Charge
.3144-1	Bale Tie Stretcher — Stretcher to reclaim old bale ties....	0.10
.3152-1	Pea Weevil Duster — Constructed of standard pipe and pipe fittings. High-velocity delivery with standard 9-inch high-pressure nozzles attached to booms.....	0.30
.3152-2	Pea Weevil Duster, Trailer type — Frame constructed of I beams, boom tower constructed of channels, angle iron, and straps. Low-pressure delivery to dust from $\frac{3}{8}$ -inch holes in blower pipe.....	0.30
.3152-4	Pea Weevil Duster — Trailer type, caster-supported blower pipe booms. Booms designed to be trailed behind duster for transport purposes.....	0.30
.3152-5	Pea Weevil Duster — Trailer mounting, blower and boom type with caster wheel support. V-belt drive for power take-off. Two 3-foot booms of steel tubing. Original design by Fred Pitzen, Moscow, Idaho.....	0.60
.3152-6	Ball Bearing Blower — Boiler plate housing, welded construction, and salvaged automobile parts. Dust hopper made from 30-gallon oil drum; power operated agitator and Y discharge designed for use with 3" steel tube booms. May also be used as a dust collector or vacuum cleaner.....	0.30
.316 -1	Sandmeyer Loader — Manure loaded by scraper onto platform mounted on wheels on inclined track; platform pulls up and dumps automatically; 2 types of scrapers shown....	0.30
.316 -2	Tractor Manure Loader — Manure loader made to fit individual tractor. Shovel attachment on front of tractor which can be raised or lowered by means of power takeoff.....	0.30
.3164-1	Spreader for Lime or Fertilizer — Truck or tractor mounting.....	0.10
X .3170-1	Combination Elevator — For bulk grain, bags, or bales. Chain and electric-type elevator operated in reverse for handling bags or bales. 22' long. May be made stationary or portable.....	No Charge

File Number		Price
.3171-1	Two Types of Hay Derrick (Mormon) — 30' boom and 42' boom, developed in South Idaho.	0.30
.3171-1B	Mast Head for Hay Derrick — With swivel head and boom support for heavy duty.	0.10
.3171-2	Mormon Hay Derrick — Base 16' x 20', mast 14" x 14" x 26', boom mounted on mast with swivel head.	0.20
.3171-10	Hay Slip — Platform size 8' x 16', on automobile wheels. Capacity 800-1000 lbs.	0.10
.3171-11	Beaver Slide Hay Stacker — Size 12' x 24'; 15' 6" high at highest end. Used for stacking wild hay.	0.10
.3171-12P	Power Hay Bucker — Designed to be mounted on the front of a tractor, width 12', teeth 8' long.	0.10
.3171-13	Tractor Buck Rake — Rake mounted in front of tractor and lifted by cable to tractor hoist from power takeoff. Platform 14' wide 13' deep.	0.30
.3171-14	Auto Buck Rake (Fry type) — Rake mounted on auto chassis. Rake operates from transmission power take-off.	0.30
.3171-15	Hay Slings (California type) — Chain and rope with steel or wooden bars.	0.10
X .3171-16	A-Frame Hay Derrick — 16 to 18 feet square base. Pole construction. Swinging type, 50' boom.	No Charge
.3171-17	Tractor Buckrake (Kennard type) — Mounted on front end of tractor and lifted by cable and derrick from drums driven off differential operated by power take-off.	0.30

### Livestock and Dairy Machinery

.321 -5	Magnet Tray for Feed Grinder — Three rows of permanent magnets mounted in bottom of chute for removing iron and steel particles.	0.10
.321- 6A to-6G	Feed and Grinding Room Arrangement — Four overhead bins with grinder underneath. Chutes and elevators arranged for simultaneous mixing and grinding. Used in dairy barns, U. of Idaho.	0.70
.3243-2	Low-Pressure Sterilizer — Concrete; 3' 6" x 4' x 6' 4" high; suitable for construction in milk houses.	0.30

### Vehicles

.331 -1	Rubber-Tired Farm Wagon — Channel and I-beam bed on converted automobile chassis.	0.30
.333 -1	Hay Rack — For truck or wagon. Wood construction. Dimensions 7' 6" x 16' x 5' 5".	0.10

### Tools and Shop Equipment

.340 -1	Tubular Steel Hand Truck — Dimensions 5' 6" x 2' 6" wood bed. Rubber tire wheels.	0.10
.340 -2	Home-Made Truck — For portable electric motor. Design by Westinghouse Company. Welded iron frame.	0.20
.346 -1	Electric Drill Stand — Made from iron pipe fittings; converts a portable electric into a post or bench drill.	0.10
X .346 -2	High Speed Bench Drill — A ¼-h.p. ball bearing electric motor bench drill made of standard ¾" pipe and fittings.	No Charge
.346 -3	Electric Drill Stand — Made from iron pipe fittings, for shop bench.	0.20



File Number		Price
.346 -4	Farm Shop Work Bench — Heavy Plank construction. Two types shown. 34" x 8'	0.10
.346 -7	Wall Case for Shop Tools 24" x 30"— Wood, shows two arrangements.	0.10
.346 -8	Shop Bench Sander — Drum and disk type.	0.10
.346 -8A	Shop Bench Sander — Electric motor driven. Belt type.	0.10
.346 -11	Electric Pencil — For engraving tools, etc. B.M. on plan.	0.10
.346 -12	Carpenter's Bench 2' 1" x 8'— Vise and drawer in front. Listed as .7411 in Misc. Pub. 319.	0.20
.346 -16	Portable Welding Table — 2' x 4' x 30" high. Fire brick top on welded steel frame. Two wheels, barrow type for moving on shop floor.	0.20
.346 -17	Farm Shop Parts Cabinet — Cabinet for storing bolts, nails, small parts. Cabinet 8" thick, can be made any width or height to fit available space. Each bin about 6" x 7" x 6" with sliding door. Made of $\frac{1}{4}$ plywood and 1" strips.	0.30
.346 -18	Portable Trolley for Chain Hoist — "A frame built of iron pipe, 11' high. I-beam cross bar 10' long for chain hoist. On casters for moving inside shop. May be dismantled to haul on truck.	0.30

### Pumps and Pumping Equipment

.350 -2	Cooling Manifold for Layne and Bowler Pump — Supplementary water cooling for motor operated pumping plants. Heavy duty direct connected under ground discharge head.	0.20
.3518-2	Jet Pump — With pneumatic pressure tank and fire protection and irrigation control valve.	0.30

### Construction Machinery

X .360 -1	Concrete Mixer — Constructed from oil barrel, automobile transmission and electric motor.	No Charge
-----------	---	-----------

## Power

### Transmission Mechanisms

.4040-1	Types of Bearings and Hangers — Typical sleeve bearings.	0.10
.4041-1A	Types of Belting — Typical flat belts.	0.10
.4041-1B	Types of V-Belts and V-Belt Drives.	0.10
.4041-2	Types of Belt Fasteners.	0.10
.4041-3A	Types of Belt Applications — For flat belts.	0.10
.4041-3B	Types of Transmission Belts and Drives.	0.20
-3C		
.4041-4	Standard Types of Sheaves — For V-Belts.	0.10
.4041-5	Types of Pulleys and Couplings.	0.10
.4042-1	Types of Gears.	0.10
.4043-1	Types of Chain or Link Belting.	0.10
.4122-1	Tractor and Horse Hitch — For tractor and six horses working together.	0.10

**Water Power**

File Number		Price
.422 -1	Three Forms of Current Wheel Paddles — Curved, angled, straight.....	0.10
.422 -2	Current Wheel for Lifting Water — Detail of bucket and method of fastening to wheel braces.....	0.10
.422 -3	Method of Fastening Buckets on Current Wheel for Lifting Water.....	0.10

**Electrical Applications**

.453- 3	Wiring Joints — Typical joints for electrical wiring.....	0.10
.453 -5	House Wiring — Lamp and switch connections. Typical wiring diagrams.....	0.10
.4551-2	Wiring Diagram for Motor Generator Set.....	0.10
.4551-3	Electrically Operated Farm Gate — 16' wood gate opened and closed by electric motor, controlled by push-switches. Simple drawing of structure, with complete wiring diagram. Two sheets.....	0.20
.4552-1	Transformer Core Layout and Transformer Assembly.....	0.10
.4556-1	Power-Off and Temperature Alarm — Bell dry cell, Ford ignition coil; with wiring diagram.....	0.10
.4556-2	Power-Off and Burglar Alarm — With wiring diagram.....	0.10

**Automotive Applications**

.465 -1	Four-Wheel Trailer Hitch — For converted automobile chassis.....	0.10
.465 -2	Knee Action Trailer — Shows connection of trailer bed to spring.....	0.10
.465 -4	Two-Wheel Stock Trailer — Swinging stanchions in front; end gate serves as loading ramp. Bolted wood construction.....	0.30
X .465 -5	Two-Wheel Light Weight Trailer — Spring mounted and dead axle.....	No Charge

**Buildings****Construction Details**

.7031-1	Details of Swing-Out Type Casement Window — Frame Construction.....	0.30
.7031-2	Details of Interior Wall and Door Section — Frame Construction.....	0.30
.7033-1	Methods of Laying Out Foundations — With batten boards and chalk lines.....	0.10
.7034-1	Gothic Rafter, Bent Type — A barn floor layout for forming a Gothic rafter of the bent type, of laminated 1 x 4.....	0.30
.7034-2	Gothic Rafter, Sawed Type — Half section through roof framing, showing method of forming a sawed type of Gothic rafter. Using 1 x 10 and 1 x 4.....	0.30
.7036-2	Door or Gate Bolt with Hook and Staples — For exercise in forge shop or for making at home.....	0.10



## Fireplaces and Incinerators

File Number		Price
.7037-1	Outdoor Fireplace — Perspective and details. Masonry construction with ash pit.	0.10
.7037-2	Outdoor Brick Fireplace — Perspective and details. Brick construction.	0.10
.7037-6	Outdoor Fireplace and Table — Brick and concrete with standard size iron hardware. 35" x 31" x 36" high. Picnic table with seats attached, built of 2" lumber bolted together. Table top 26" x 60".	0.30
.7037-7	Incinerator — For outside use, brick, standard size iron hardware. 3'-0" x 2'-4" x 8".	0.30

## Dwellings and Fixtures

.71 -1	One-Story Frame Construction 20' x 32' — Combined living and dining room; kitchen; 2 bedrooms; no cellar; pier and girder foundation; fireplace.	0.60
.71 -1P	Pictorial and Floor Plan of .71-1.	0.10
.71 -2	One-Story Frame Construction 18' x 30' — Combined living room and kitchen; one bedroom and bath; front and rear porches; no cellar; concrete foundation.	0.60
.71 -2P	Pictorial and Floor Plan of .71-2.	0.10
.71 -3	One-Story Frame Construction 27' x 30' — Kitchen and dining room combination, 2 bedrooms, bath, enclosed rear porch, front porch, cellar with furnace flue. Alternate plan: Living room, kitchen and dining room combination, bedroom, bath, enclosed rear porch, front porch, cellar under part of house, no furnace flue.	0.90
.71 -3P	Pictorial and Alternate Floor Plans for .71-3.	0.90
.71 -4	One-Story Frame Construction 26' x 50' — Living room with fireplace; dining room, kitchen, washroom and laundry, 3 bedrooms, bath, sleeping porch, basement with furnace flue, front porch, rear screened porch, ell 20' x 16'. Attic may be finished providing two additional bedrooms.	0.90
.71 -4P	Pictorial and Floor Plan for .71-4.	0.10
.71 -7	One-Story Frame Construction 28' x 36' — Living room, dining room, kitchen, bath, 2 bedrooms, sleeping porch, small cellar for furnace, storage cellar, front porch, rear screened porch, ell 16' x 20'.	0.90
.71 -7P	Perspective and Floor Plan for .71-7.	0.10
.71 -8	One-Story Frame Construction 29' x 50' — Living-dining room combination, 2 bedrooms, bath, kitchen, washroom, and laundry, living porch, small entrance porch, basement with furnace flue.	0.90
.71 8-P	Pictorial and Floor Plan for .71-8.	0.10
.71 -17	Log House 27' x 31' — Living-dining room combination, kitchen, 2 porches, 2 bedrooms and bath. Fireplace.	0.60
.71 -17P	Pictorial and Floor Plan for .71-17.	0.10
.71 -18	Log House 32' x 42' — One-story; living room, dining room, kitchen, 2 bedrooms, bath and 2 porches, no basement nor utilization of loft.	0.60
.71 -18P	Pictorial and Floor Plan for .71-18.	0.10
.71 -19	Log Houses 28' x 28' — Porch, 2 bedrooms, kitchen-living room combination, fireplace.	0.30
.71 -19P	Pictorial and Floor Plan for .71-19.	0.10



File Number		Price
.71 -20	Log Cabin 18' x 30'— For summer home or camp. A single room provides the kitchen, dining room, and living quarters; loft used for sleeping quarters, space for four bunks. Large fireplace.....	0.30
.71 -20P	Pictorial and Floor Plan for .71-20.....	0.10
.71 -40	Construction Details— Typical framing methods in wood construction. Shown pictorially and also with architectural details. Sheathing, bracing, cornice, rafter, bridging, and joist details included. Board and batten.....	0.30
.71 -42	Farm House 16' x 31'— One-story frame structure; kitchen-dining room combination; living room-bedroom combination, beds partitioned off with shelves and screen or curtain; provision for future shower, front porch, screened back porch.....	0.30
.71 -51A	Farm House 30' 9" x 33' 3"— Same as .71-51 with addition of one bedroom and shower converted into bath. For warm climate or summer use.....	2.40
.71 -51AP - BP	Pictorials showing alternate floor plans and use of different materials in .71-51A.....	0.10
.71 -68	4-Room Farm Home 21' 6" x 37'— Living room, kitchen with dining space, fireplace, bath and 2 bedrooms on main floor. Full basement. No upstairs.....	0.60
.71 -71	Farm House— Modern Type 35' x 38' 6"— Exterior may be sheet metal, concrete blocks, combination lap siding and shingles or wide boards. Kitchen, fuel and heater space, dining room, living room, front and rear porches, laundry room, 3 bedrooms and a bath. Flat roof, no basement.....	0.30
.71 -71P	Pictorial and Floor Plan of .71-71.....	0.10
.71 -72	Farm House Modern Type 31' 6" x 36' 9"— Living-dining room combination, fireplace, kitchen, heater and fuel room, 3 bedrooms (2 with bunks), bath, hall, small entrance porch. Flat roof with clerestory windows.....	0.30
.71 -72P	Pictorial and Floor Plan. Cross Section of Bedroom and Bunk.....	0.10
.71 -78	Farm House 29' 6" x 32'— One and one-half stories. Ell 11' x 13' 6". First floor: Kitchen, living room with fireplace, service porch with shower, hall, bedroom. Second floor: 2 bedrooms, bath, storage room. Five different exteriors.....	2.10
.71 -78P	Pictorials of 3 Different Roofing Plans, and first and second floor plans for .71-78.....	0.10
.71 -83	Sleeping House 12' x 16'— Fresh air type, gable roof. Wire and muslin screen over wood frame.....	0.30
.71 -91	Farm House 34' x 27'— Two-story stone construction. First floor: Kitchen, dining alcove, living room with fireplace, bedroom, bath, front and rear porches. Second floor: 3 bedrooms.....	0.90
X .71 -93	Tent Frame— Size 11' 8" x 14'.....	No Charge
.71 -94	Farmhouse for North: 42' 8" x 26' 8"— Modern. Frame construction; 1 story with full basement. Ground floor: living room with fireplace, 3 bedrooms, kitchen, and bath. Basement: Recreation room, furnace and fuel storage, utility and food storage rooms. With kitchen cabinet details.....	1.50
.71 -95	Farm House for North, 42' 8" x 26' 8"— Modern. Concrete masonry, 1 story with full basement construction. Ground floor: Living room and fireplace; kitchen, 3 bedrooms, and bath. Basement: Furnace room, fuel storage, laundry, food storage, recreation room, and shower room. With kitchen cabinet details.....	1.80

File Number		Price	
.71	-101	<b>Farmhouse 42' 8" x 26' 8"</b> — Simple architecture; one-story with full basement, designed for the north. Compactly arranged with 3 bedrooms, large kitchen with dining space, living room 18' 8" x 13' 4", bathrooms, and good traffic circulation, storage space, and closets. The basement has food storage room, with details of construction, and kitchen cabinet details. (For perspective view and floor plan order free X-plan .71-101).....	1.50
X	.71 -101	<b>Pictorial View and Floor Plan for .71-101</b> — Not a working drawing.....	No Charge
.71	-104	<b>Farmhouse 37' x 25'</b> — One-story, no basement, modern design, suitable for a small family or tenant house on a large farm. Kitchen with dining space, workroom, two bedrooms, bath, hall, storage space, front porch and a protected rear entrance. Central heating. For frame or masonry construction. (For perspective view and floor plan order free X-plan .71-104).....	1.20
X	.71 -104	<b>Pictorial View and Floor Plan for .71-104</b> — Not a working drawing.....	No Charge
.71	-105	<b>Farmhouse 26' 8" x 24'</b> — A minimum house, suitable for a tenant or farm labor house or for a young couple. Either gable or shed roof. Designed for future rearrangement and enlargement. Includes 2 bedrooms, bath, hall, living room and kitchen with dining space. No basement. (For perspective view and small floor plan order free X-plan .71-105).....	0.60
X	.71 -105	<b>Pictorial View and Floor Plan for .71-105</b> — Not a working drawing.....	No Charge
.71	-106	<b>Farmhouse 48' x 26'</b> — A 2-bedroom house designed so two more bedrooms and a lavatory may be added. Separate entrance to rear hall where the bathroom and bedrooms are located. Laundry facilities and storage rooms in basement. Frame construction. (For perspective view and floor plan order the free X-plan .71-106).....	1.20
X	.71 -106	<b>Pictorial View and Floor Plan for .71-106</b> — Not a working drawing.....	No Charge
.71	-107	<b>Farmhouse 35' 8" x 37' 8"</b> — Compact plan. Includes 3 bedrooms, bath, connecting hall, kitchen, dining room, living room, vestibule, porch and basement. Laundry and workroom in basement. Frame construction. (For perspective view and floor plan order free X-plan .71-107).....	1.50
X	.71 -107	<b>Pictorial View and Floor Plan for .71-107</b> — Not a working drawing.....	No Charge
.71	-108	<b>Farmhouse 28' 4" x 39' 4"</b> — 1½-story, 2 bedrooms and bath on the first floor, full basement with workroom and shower, dining space in kitchen and a large living room. The second floor has space for two large bedrooms and a bath. All rooms accessible from the rear hall. Plenty of storage space and closets. Frame or masonry construction. (For perspective view and floor plan order free X-plan .71-108.) Kitchen cabinet details included.....	1.50
X	.71 -108	<b>Pictorial View and Floor Plan for .71-108</b> — Not a working drawing.....	No Charge
.71	-117	<b>Farmhouse 19' x 28'</b> — 2-room, 532 sq. ft. floor area; kitchen with dining area; living room with alcove space for one bed; bath. Entry, no basement. Minimum construction and simple arrangement for least possible building cost. Includes plans for 2-bedroom additions.....	3.60
X	.71 -117	<b>Pictorial View and Floor Plan for .71-117</b> — Not a working drawing.....	No Charge



File Number	Price	
.71 -118	<b>Farmhouse 16' x 30'</b> — 2-room, 480 sq. ft. floor area, L-space kitchen with dining area. Bed alcove in living room; entry direct to living room. No basement. Includes plans for 2 bedroom additions. Minimum standards and simple arrangement for low construction costs.....	3.30
X .71 -118	<b>Pictorial View and Floor Plan for .71-118</b> — Not a working drawing.....	No Charge
.71 -119	<b>2-Room Farmhouse (Expansible)</b> — Basic house 18' x 40', includes living room with bed alcove, kitchen and bath. 3 bedrooms may be built later, making overall size 30' x 46'. Gable roof, no basement, frame construction, includes details of kitchen cabinets.....	2.10
X .71 -119	<b>Pictorial View and Floor Plan for .71-119</b> — Not a working drawing.....	No Charge
.71 -120	<b>1-Bedroom Expansible Farmhouse</b> — Basic house 25' x 36', includes living room, kitchen, bath and one bedroom. 12' x 25' additions may be added later. Has 1 bedroom and work room. A third addition, 12' x 25', has 2 more bedrooms. Includes details of kitchen cabinets.....	1.50
X .71 -120	<b>Pictorial View and Floor Plan for .71-120</b> — Not a working drawing.....	No Charge
.71 -121	<b>Farmhouse 23' 8" x 32'</b> . Rustic appearance, no basement, one-story. Designed for a small family. 2 bedrooms, bath, living room with dining space, large workroom. A central heating system can be used. Shown in log construction with stone chimney and foundations, working drawings have been developed so that frame or masonry can be substituted. Kitchen cabinet details included.....	.90
.71 -121R	<b>Mirror reversal of .71-120</b> .....	2.10
.71 -122	<b>2-Bedroom Farmhouse</b> . 35' x 32' 8". Frame construction. Partial basement, living room, kitchen, 2 bedrooms. Complete working drawing.....	1.80
.71 -123	<b>2-Bedroom Farmhouse</b> . 26' x 38', frame construction, full basement, living room, kitchen, bath, 2 bedrooms.....	1.80
.71 -124	<b>3-Bedroom Farmhouse</b> . 26' x 44', frame, full basement, kitchen, dining room, work room, 3 bedrooms, living room, bath.....	.90
.71 -125	<b>3-Bedroom Farmhouse</b> . 26' x 44', frame, no basement, slab-on-ground floor.....	.90
X .711 -A	<b>Home Planning</b> — Home built kitchen cabinets, suggested kitchen arrangements. No details. Not a working drawing.....	No Charge
X .711 -B	<b>Start Planning Now</b> — Points to keep in mind when planning a farm house.....	No Charge
X .711 -B-1	<b>Planning the Farm Kitchen</b> — Basic types, suggestions for arrangement. Not a working drawing.....	No Charge
X .711 -B-2	<b>Planning Kitchen Cabinets</b> — Brief description of various types. Not a working drawing.....	No Charge
X .711 -B-3	<b>Planning the Work Room</b> — Suggestions for size, location, equipment. Not a working drawing.....	No Charge
X .711 -B-4	<b>Planning Storage Arrangement</b> — Suggestions for storage space for all rooms of a house. Not a working drawing.....	No Charge
X .711 -B-5	<b>Planning the Bathroom</b> — Suggestions for location, size, arrangement. Not a working drawing.....	No Charge
X .711 -B-6	<b>Insulation</b> — Chart showing relative insulative values of various wall construction. Not a working drawing.....	No Charge

File Number		Price
.711 17-A -17B	<b>Double Bunk Bed</b> — 6' 10" long, 5' 11" wide, 5' 9" high; ladder built on; built-in drawers; accommodates four persons. B.M. on plan.	0.20
.711 -17C	<b>Double Deck Bunk</b> — Similar to .711-17A, B; smaller drawers.	0.20
.711 -18	<b>Built-in Wardrobe</b> — 10' x 2' x 7'; for clothes, hats, shoes linen; 10 drawers, sliding doors. No details.	0.10
.711 -25	<b>A Suggested Kitchen Cupboard</b> — Shows arrangement of cupboards and drawers around sink. No details.	0.10
.711 -27	<b>A Suggested Closet Arrangement</b> — Economical utilization of space in the arrangement of two built-in wardrobes and a linen closet between two bedrooms.	0.10
.711 -28	<b>Suggested Kitchen and Workroom Arrangement</b> — Kitchen 9' x 9'; workroom 6' x 9', adjacent to kitchen; washing machine, laundry trays, stove, lavatory in workroom.	0.10
.711 -30	<b>Cellar Entrance</b> — Showing construction of door and steps for entrance to cellar from outside.	0.10
X .711 -31	<b>Storage Cabinets</b> — For brooms and cleaning equipment. Not a working drawing.	No Charge
X .711 -32	<b>Work Table and Sewing Cabinet</b> — Small general utility table on wheels for use in kitchen or utility room. Sewing cabinet shows arrangement for placing sewing materials in carrying case.	No Charge
X .711 -33	<b>Kitchen Cabinet</b> — Suggested arrangement of drawers and shelves for kitchen cabinets. Not a working drawing.	No Charge
X .711 -34	<b>House Skeleton</b> — Pictorial of wood house framing, with names of each member.	No Charge
X .711 -35	<b>Dangerous Fire Hazards</b> — Pictorial of house showing.	No Charge
.711 -36	<b>Storage Cabinet</b> — 24" x 48" x 7' 4" or higher. Plywood. Swing doors. Complete details. Six shelves. Five small shelves on door. For general storage.	0.60
.711 -37	<b>Utility Cabinet</b> — 18" x 24" x 7' 4" or higher. Plywood. Single swing door. One drawer, two fixed shelves; five small adjustable shelves. Complete details.	0.30
.711 -38	<b>Utility Cabinet</b> — 18" x 24" x 7' 4" or higher. Plywood. One drawer, two shelves. Hangers for brooms. Complete details. Same as .711-37 except broom hangers replace small shelves.	0.30
.711 -39	<b>Chore Clothes Cabinet</b> — 18" x 24" x 7' 4" or higher. Plywood. Single door. One drawer. Complete details. Same as .711-37 and .711-38 except hangers for clothes replace shelves and broom hangers.	0.30
.711 -40	<b>Functional U Kitchen</b> — Complete working drawings for all cabinets and built-ins for modern U Kitchen. Described in March 1948 issue of "Farm Journal".	2.10
.711 -41	<b>Food Preparation and Clearing Cabinets</b> — Wood construction. Three types of base cabinets and two types of wall cabinets. Complete working and assembly drawings. May be used with window between wall cabinets. One type of base cabinet has provision for sink.	1.80
.711 -42	<b>Wood Box</b> — 24" x 24" x 30" high. Compartments for paper and kindling. Drawer at bottom. Wood construction. Complete working drawing.	0.30
.711 -43	<b>Serving Cabinet</b> — 24" x 24" x 36" high. Plywood. One drawer, two shelves. Complete working drawing.	0.30



File Number		Price
.711 -44	Wall Cabinet — 12" x 24" x 36" high. Wood construction. Two shelves, one with vertical dividers, two swing doors. General purpose. Suitable for china closet. Complete details.....	0.30

### Livestock Buildings

.721 -3	General Barn 56' x 64'— Four double horse stalls, 1 box stall, 5 cow stanchions facing in, pens for 65 sheep, 4 grain bins, 300 bu. each; crib for 300 bu. ear corn, mow capacity 58 tons, mow extends from ground to roof. Gambrel roof, 26' span with 15' shed on each side. Concrete foundation, board and batten exterior.....	0.60
.721 -5	Livestock Shed — Any length desired; 20' wide. Designed in 12' sections. One side open.....	0.30
.721 -9	Cattle Shed 24' x 72'— Built for Idaho State Penitentiary, 1930. One side open, concrete foundation, scissors-truss framing on concrete piers; gable roof.....	0.30
.721 -15	Livestock Shed 24' x 48'— Enclosed on 3 sides, gable roof..	0.30
.721 -16A	Open Shed 24' x 48'— With milking section, stanchion types; capacity 6 cows. Lean-to feed room may be added if desired.....	0.30
.721 -16B	Open Shed — Same as .721-16A except the milking section is a walk-through type.....	0.30
X .721 -16C	Tandem Milking Parlor — For use with shelter shed; 15' x 36'; four walk-through pens. Milking pit may be varied in depth to meet individual requirement. Not a complete working drawing.....	No Charge
.721 -19	General Barn 34' x 62' and 34' x 72'— Eight-horse and five cow stalls with alternate arrangement of litter and feed alleys. Plan only. No details.....	0.30
.721 -21	Barn Framing — For 1½-story gable roof, 34' and 36' barn.....	0.30
.721 -22	Gothic Roof Barn Framing — For 34' and 36' barn.....	0.30
.721 -23	Braced Rafter Barn Framing — For 34' and 36' barn.....	0.30
.721 -23A	Braced Rafter Frame — Span 16' to 24'. Gambrel roof. Working drawings for rafter only.....	0.30
.721 -24	Braced Rafter Barn Framing — For 1½-story, 34' and 36' barn.....	0.30
.721 -25	Hay Door Details — Hinged and drop types with roof framing for hay door end.....	0.30
.721 -26	Cow Stall Details — For level and raised feed alley manger, concrete.....	0.30
.721 -27	Concreting Cow Stalls — Successive steps for concreting barn floor.....	0.30
.721 -28	Horse, Cow, and Calf Stall Details.....	0.30
.721 -29A	Barn Window Details — For wood frame walls, steel sash, wood sash, tilting and sliding sash. Based on modular standard stock windows. With opening sides.....	0.30
.721 -29B	Barn Window Details — Same as .721-29A except for windows to be built in masonry walls.....	0.30
.721 -30A	Barn Door Details — Working drawings for the construction and assembly of single and double sliding doors, hinged doors, and dutch doors, in wood frame buildings.....	0.30
.721 -30B	Barn Door Details — Same as .721-30A except for use in masonry walls.....	0.30
.721 -31	Horse Stall Details — Face out-, face in-, and wall-stalls..	0.30
.721 -32	Barn Eaves Details — Four types of cornices.....	0.30

File Number		Price
.721 -33	<b>Barn Eaves Details</b> — Architectural details showing the construction of eaves on barn roofs, masonry walls. Includes cornice and dormer details.	0.30
.721 -34	<b>Barn Wall and Ceiling Sections</b> — Frame Construction. Cross sectional drawings of nine types of wall and ten types of ceilings, showing installation of various insulating materials with thermal co-efficient of each and location of vapor barrier.	0.30
.721 -35	<b>Barn Wall and Ceiling Construction</b> — For one-story masonry barns. Architectural details for five different masonry wall and ceilings, with foundation and plate details.	0.30
.721 -36	<b>6-Stall Single Row Floor Level Milking Plant</b> — A combination milk house-milking parlor. Stanchion type parlor. Construction details, 20' x 42' cinder block. 3 sheets.	0.60
.721 -37	<b>3-Stall Tandem Farm Milking Plant</b> — A combination milk house-milking parlor. Feed storage room. Building block construction. 26' x 32' Details. 3 sheets.	0.60
.721 -38	<b>4-Stall Tandem Farm Milking Plant</b> — Similar to .721-37. 26' x 40'. 3 sheets.	0.60
.721 -39	<b>3-Stall U-Type Farm Milking Plant</b> — Combination milk house-milking parlor. Building block construction. 24' x 40'. Details. 3 sheets.	0.60
.721- 40	<b>4-Stall U-Type Farm Milking Plant</b> — Similar to .721-39. 22' x 46'. 3 sheets.	0.60
.723- 1	<b>Bull Barn 12' x 18'</b> — One-story; feed alley; 2 grain bins, 12 bu. each; gable roof; concrete foundation and floor; iron stanchion and rail.	0.60
.723 -23	<b>Bull Pen 18' x 14'</b> — Frame construction with paddock. 40' x 16'. Safety features include arrangement of gates and breeding stall.	0.30
.723 -25	<b>Dairy Barn 17' x 48'</b> — Inexpensive, shed roof type; 10 cow stalls, feed room, milk room, concrete floor.	0.30
.723 -26	<b>Bull Barn and Exercise Lots</b> — For 2 bulls; safety features include an arrangement of gates and breeding stalls; concrete apron in front of barn.	0.60
.723 -27	<b>Milk Barn and House</b> — Six parallel milk stalls; capacity sufficient for herd of 30 to 60 cows. Milk house contains washroom, milk room, cold room, machine room. Concrete loading platform.	1.50
.723 -28	<b>Milking Barn, 18' x 69'</b> — One string; milk, wash, and grain rooms. With details.	1.50
.723 -30	<b>Dairy Barn 36' x 62'</b> — One and one-half story gambrel designed for wood, tile or concrete block. Stalls for 24 cows. With details.	1.50
.723 -31	<b>Dairy Barn 34' x 60'</b> — One-story gable-off, concrete, tile, or cinder block. Eighteen stalls facing out, 4 pens and feed room.	0.30
.7231-3	<b>Calf Stanchion</b> — Wood construction adapted to pen feeding.	0.10
.7231-4	<b>Wooden Stanchion</b> — Simple and inexpensive. Adapted to barns and milking sheds.	0.10
.7231-5	<b>Cow Stanchions</b> — Homemade, wooden, showing method of attaching to post and girder supports.	0.30
.724 -4	<b>Stock Shed for Beef Cattle 20' x 60'</b> — 720 sq. ft. open shed area; 240 sq. ft. closed pen; 48 ft. of manger. With details.	0.60
.724 -5	<b>Cattle Barn 78' x 84'</b> — Built for University of Idaho, 1930. Monitor type, truss frame on concrete foundation, hay mow in center from floor to ridge 30' wide, wings 24' wide, 6 dormers, 2 ventilators.	0.90



File Number		Price
.724 -5P	Pictorial and Floor Plan of .724-5.....	0.10
.724 -6	Cattle Shed 20' x 68'— With 20' x 24' ell. Capacity 50 head of loose cattle; open front, gable roof, concrete foundation. Feed rack inside.....	0.30
X .724 -8	Chopped Hay Storage and Feeding Barn 26' x 40'— Shed roof, 640 sq. ft. of open shed; 5500 cu. ft. of chopped hay storage; frame construction, concrete foundation, capacity for 40 tons of chopped hay. Alternate plan shows twice the capacity under a gable roof.....	No Charge
.724 -10	Hay Feeding Shelter 18' x 32'— 512 sq. ft. under open shed with self-feeder rack along one side.....	0.30
.724 -11	Cattle Shed, 48' x 72' x 24' deep— L-shape, feed manger and alley. Wood frame with gable roof construction.....	0.30
.724- 12	Cattle Shed, 75' x 30'— Wood frame, gable roof, board and batten wall. Shed can be built any desired length in multiples of 15 feet. If feed racks are omitted and openings equipped with sliding doors, this building is suitable for use as a machine shed.....	0.60
.724 -13	Plan of Milkhouse Attached to Stanchion Type Barn — Showing arrangement of equipment.....	0.10
.724 -14	Cross Sections of Two Dairy Stanchions — Concrete floor and manger.....	0.10
.724 -15	45' Pole Type Loose Housing Barn — Poles set into ground. Vertical board siding, aluminum roof. With construction details. 45' x 90'. 3 sheets.....	0.60
.724 -16	Pole Type Loose Housing Barn — 60' x 135'. Frame of poles set into ground. With construction details. 3 sheets.....	0.60
.724 -17	Pole Type Cattle Shed — Frame of poles set in ground. L-type. 72' x 24'-24' x 24'. With construction details. 4 sheets.....	0.80
.724 -18	Pole Barn — Frame of poles set in ground. 44' x 64'. With construction details. 3 sheets.....	0.60
.7241-2	Nevada Type Chute — Cattle squeeze chute. Wood construction.....	0.30
X .7241-4	Spray Corral — Single 8' x 20', double 16' x 20'; for any desired corral systems.....	No Charge
.7241-5	Ranch Corral — Showing location of squeeze chute, dipping vat, spray pen, and corral.....	0.30
.725 -8	Sheep Shed 16' x 24'— Closed, gable roof, feed racks in center.....	0.30
.725 -9	Sheep Shed 16' x 24'— Shed roof type. Open one side. Feed rack on walls.....	0.30
X .7251-2	Fencing and Feeding Panel 12' x 3' high — Grain feeding troughs for use in fence.....	No Charge
.7251-6	Range Sheep Feeder 10' x 48'— Hay storage in center with feed racks on each side, roof extends over feeding area.....	0.30
.726 -3	Hog House 20' x 36'— Twelve pens 6' x 8', 6 on each side of 4' feed alley, movable division partitions with hinged fenders, gable roof, concrete foundation, skylights in roof, sliding doors from each pen to feeding yards.....	0.30
.726 -6	Portable Hog House 8' x 12'— On skids, shed roof, 2 windows in front, 1 door in end, removable plank floors, ventilator.....	0.30
.726 -7	Portable Hog House 8' x 8'— Inverted V-type on skids, door at one end with hurdle, swing-up adjustable door at other end for ventilation and light; removable plank floor.....	0.60
.726 -10	Portable Hog House 7' x 7'— Inverted V, roof hinged at ridges for opening.....	0.30

File Number		Price
.726 -12	Farrowing House 12' 4" x 36' 8"— Feed alley in front, 6 hog pens. Bill of materials. . . . .	0.30
.726 -13	Farrowing House 20' x 42' x 10'— Central alley, 6 pens on each side of alley. Skylights in roof. . . . .	0.30
.726 -15	Hog House (Movable) 9' x 12'— Gable roof, two pens. . . . .	0.30
.726 -16	Farrowing House 8' x 16'— With 8' x 16' concrete front yard; shed roof, 2 pens, concrete floor. . . . .	0.90
.726 -17	Plywood Hog House 6' 4" x 7' 8"— Gable-type with roof section hinged-door in one end. . . . .	0.30
.726 -18	Two Pen Portable Hog House 7' x 14'— Shed roof, frame construction, Dutch doors in front. . . . .	0.60
.7261-1	Self-Feeder for Hogs 10' x 10' x 8'— Inverted V-type feed bin in center. Troughs on sides. . . . .	0.30
.7261-2	Self-Feeder for Hogs 3' x 2'— Double compartment, capacity about 2 bushels, adjustable openings. . . . .	0.20
X .7261-3	Portable Hog Loading Chute — Built on University Farm, 1932. Length 12', runway 2' 4" wide, built on wagon truck. . . . .	No Charge
.7261-5	Lifting Crate for Hogs — 8' x 2' 9" x 5' 4" high. . . . .	0.20
.7261-6	Shipping Crates — Three sizes show: For hogs weighing 150 to 175 lbs., 250 lbs. and 500 lbs. . . . .	0.20
.7261-9	Hog Wallow 10' x 13'— Concrete wallow with sloping incline. . . . .	0.10
.7261-10	Breeding Rack for Hogs 10' x 2' 6"— Adjustable. . . . .	0.20
.7261-16	Scale Fence 7' 11" x 13' 11"— For use in weighing hogs. May be made to fit platform of any scales. . . . .	0.20
.7261-17	Pig Creep — To be used in corner of lot against field fences; size of enclosure 8' x 8'. . . . .	0.20
.7261-18	Dipping Vat for Sheep or Hogs — Concrete pit showing arrangement of cutting gates and drainage pen. . . . .	0.20
.7261-24	Self-feeder for Hogs 23" x 51"— Suitable for either grain or meal. Bill of materials. . . . .	0.20
.7261-25	Self-feeder for Hogs 4' x 5'— Storage in center, feed trough on both sides. Bill of materials. . . . .	0.30
.7261-29	Alfalfa Hay Feeder for Hogs 3' x 6'— Slat-type hopper for hay with trough on both sides; on skids. . . . .	0.30
X .7261-31	Portable Hog Wallow — Wood construction. On skids, with ramp. . . . .	No Charge
.727 -2A	Modified Half Monitor 36' x 40'— Gable roof with straw loft. . . . .	0.60
.727 -9	Portable Colony House 10' x 12'— Shed roof; on skids. . . . .	0.30
.727 -10	Portable Colony Brooder House 10' x 14'— On skids, adapted to brooder and range housing, on skids. . . . .	0.20
.727 -15	Shed Roof Insulated Poultry House 16' x 20'— Insulation and ventilation details, concrete floor. . . . .	0.30
.727 -17	Window Details for Poultry Houses — Swing-in type window. . . . .	0.10
.727 -17A	Window Details for Poultry Houses — Similar to .727-17 except that head, jamb and sill section details are omitted. . . . .	0.10
.727 -18	Outtake and Intake Flues for Poultry Houses — Three outtake and two intake flues are illustrated. . . . .	0.10
.727 -20	Outtake and Intake Flues for Poultry Houses — Similar to .727-18 except modulating intake and intake for shed roof house added. . . . .	0.10
.727 -22	Laying House 20' x 20'— Metal walls and roof. Shed roof. No insulation. . . . .	0.30



File Number		Price
.727 -23	Laying House 18' x 20'— Shed roof, wood construction, concrete base.....	0.90
.727 -24	Poultry Shelter, Summer Range, 10' x 10'.....	0.30
.727 -25	Brooder House, Portable 12' x 16'— Shed roof type.....	0.30
.727 -26	Small Backyard Poultry House 5' x 10'— On skids.....	0.10
.727 -27	A Two-Deck Backyard Poultry House 4' x 12'— On skids.....	0.10
.727 -28	Backyard Poultry House 3' 6" x 8'— Plywood construction.....	0.10
.7271-2	Feed Hopper—Enclosed feed storage with feeding trough on side.....	0.10
X .7271-3	Mash Hopper — Same as .7271-2 except with trough both sides and handle for carrying. Includes plan for small mash feeder for young chicks.....	No Charge
.7271-6	Lighting Arrangement — Lighting arrangement and series-parallel method of dimming light in poultry houses. With wiring diagram.....	0.20
X .7271-9-2	Catching Coop 2' x 2' x 4'— Screen side, slatted top. Hinged door and top. Removable carrying handles.....	No Charge
.7271-11	Open Nests — Double deck. Wood construction with wire and mesh bottom.....	0.20
.7271-13	Ultra-Violet Treater for Poultry — Combined hopper and ultra-violet treater.....	0.10
.7271-17	Trap Nest—Made of wood and wire netting. Simple trigger arrangement. Poultry netting bottom.....	0.10
.7271-18	Sanitary Poultry Nests — Nests may be used in single or multiple tier. Wood construction; wire screen bottom; back opening for egg collection.....	0.10
.7271-19	Poultry Water Heater — Water electrically heated by lead-sheathed soil heating wire. Water trough and wiring diagram.....	0.10
.7271-27	Poultry Lighting Circuits — Showing proper circuits for dim and bright lighting.....	0.10
.7271-29	Poultry Lighting Circuits Wiring diagram for a 3-wire, 2-circuit method of dimming lights in poultry houses for both manual and automatic operation.....	0.10
.7271-31	Portable Mash Hopper, 18" x 29" x 6"— Wood hopper on stand, rotating reel on top.....	0.10
.7271-35	Covered Mash Hoppers — 2 sizes, 1 for young chicks, 1 for adult birds.....	0.10
.7271-37	Infrared Chick Brooder — Six 250-watt infrared lamps on 1' x 8' frame.....	0.10
.7271-38	Infrared Chick Brooder — Three 250-watt infrared lamps ranged on triangular frame 3' apart.....	0.10
.728 -1	Rabbit Hutches — Two types; double deck type hutch 2' 6" wide, 7' long, and 5' high, and triangular-shaped hutch 3' wide, 6' long.....	0.10

### Farm Products Storage

.731 -1	Hay Shed — 16' sections or bays 28' wide, capacity 20 tons loose hay per section. Trusses on concrete piers; lower half open, upper half closed with boards and battens, gable roof.	0.30
.732 -1	Granary 14' x 24'— One story. Two bins each end of building, total capacity 1,800 bushels grain. Space in center for cleaning seed; rat-proofed; gable roof; concrete foundation.	0.60

## ORDER PLANS BY NUMBER

File Number		Price
.732 -2	Granary 24' x 32' x 30' high — Frame structure on concrete foundation, elevator type, concrete driveway; 5 large bins and corn cribs on ground floor; 9 smaller bins above. No construction details.	0.30
.732 -3	Granary 22' x 22' x 29' high — Two stories, elevator type, driveway through center with dump pit in floor, feed grinding room (grain from all bins may be fed into grinding room). Four bins first floor, 4 on second floor; concrete floors and foundation; timber construction.	0.60
.732 -4	Portable Granary 10' x 14' x 10' high — Capacity 730 bushels grain; rat-proofed, gable roof, boards and battens for side covering, skids or runners for moving. Filled through roof.	0.30
.732 -5	Corn Crib and Granary 34' x 60' x 24' high — One story. Through driveway in center, corn cribs one side 2500 bushels. Grain bins other side 4300 bushels. Vertical board and batten exterior on concrete base. No elevator.	0.60
.732 -6	Grain Elevator 26' x 28' x 29' high — Drive-through type grain elevator, capacity 4160 bushels, 3-story construction, elevating equipment with pit. Gambrel roof. Includes structural details but not details of elevator mechanism.	1.20
.732 -7	Grain Elevator 15' 8" x 31' x 42' high — Capacity 11,000 bushels, 2 bins, dump pit elevator, crib construction. Crib construction similar to commercial type elevators.	0.60
.732 -8	Knock Down Storage Bin 12' 2" x 14' x 10' high — Capacity 1000 bushels, hatch in roof for filling bin. Wood construction.	0.30
.732 -9	500-Bushel Movable Grain Bin 10' x 10' x 13' high — Wood construction, on skids.	0.30
.732 -10	1,000-Bushel Movable Grain Bin 12' x 14' x 13' high — Wood construction, on skids.	0.30
.732 -11	2,000-Bushel Grain Bin 12' x 24' x 16' high — Two bins, concrete foundation and floor, hatch in roof for filling. Wood construction.	0.30
.732 -12	5,000 Bushel Grain Bin 31' x 32' x 31' high — Drive-through type, 4 bins, gable roof, hatches in roof for filling. Wood construction on concrete base. Scoop doors but no elevator.	0.30
.732 -13	Granary 14' x 24' x 17' high — Capacity 1800 bushels, 4 bins, space for cleaning seed. Double wall lumber construction on concrete base.	0.30
.732 -15	Granary 31' x 32' x 21' high — Capacity 6,400 bushels; 4 lower bins, 1250 each, 2 upper bins 700 each. Drive-through type, bin filling hatches located in roof. Concrete foundation.	0.30
.732 -23	Log Grain Storage Bin 16' x 16' or 32' x 20' high — Single bin or double bin, 2500 or 5000 bushels, 6-inch logs. Shed roof on concrete foundation.	0.60
.733 -2A	Types of Trench Silo Walls, 4 types.	0.10
.733 -2B	Types of Trench Silo Walls, 4 types — Better construction than .733-2A, but more expensive.	0.10
.733- 3A	Types of Trench Silo Roofs and Coverings, 2 types.	0.10
.733 -3B	Straw and Earth Coverings for Trench Silos.	0.10
.733 -4A	Trench Silo Dimensions — Capacities and Feeding Requirements, Tables.	0.10
.733 -4B	Size of Trench Silo Required — Method of calculating size.	0.10
.734 -1	Potato Storage Cellar 16' x 20' — Capacity 1000 bushels, rough log frame half underground, fence wire and straw roof covered with earth. Board floor. May be used for fruit.	0.20



File Number		Price
.734 -2	Potato Storage Cellar 10' x 13'— Capacity 220 bushels, concrete construction, covered with earth . . . . .	0.30
.734 -3	Potato Storage Cellar — Drive-through type with concrete or timber retaining walls, covered with fencing, straw and soil. No details . . . . .	0.30
.734- 4	Surface Root Storage 12' x 16'— Double Walls (14") insulated with sawdust, concrete foundation and floor, double window and insulated door . . . . .	0.20
.734 -6	Storage Cellar 16' x 20'— Partial underground type. Bill of materials. Pole frame, straw and earth roof . . . . .	0.30
.734 -7	Root House 18' x 28'— Central driveway, bins on each side and one end. For hillside location . . . . .	0.30
.734 -8	Storage Cellar 9' 4" x 11' 4"— Underground type, concrete, to be built adjacent to basement in residence. . . . .	0.30
.734 -9	Westfall Storage Cellar 106' x 250' x 18'— Pole and earth construction, concrete footings, throughout bin ventilation. Capacity, 61,200 bags or 170 earloads. Drive-through, angle bins. . . . .	0.30
.734 -14	Nebraska Type Potato Storage 42' x 42'— 6700 bushels capacity. Gable roof, earth floor. With ventilation and insulation details. Concrete walls to be set 4' into ground and banked to eaves . . . . .	1.50
.734 -15	Above Ground Potato Storage House 100' x 72'— 25,000 bushels capacity; 20 bins, driveway through center. Concrete floor. Details of air ducts, door framing and insulation. . . . .	0.90
.734 -16	North Dakota Potato Storage 60' x 80'— 50,000 bushels capacity; 2-story, upper floor at ground level. With details of insulation and ventilation. Through drive-way on second floor. Concrete walls, gambrel roof . . . . .	0.90

### Equipment and Supplies Storage

.741 -5A	Machine Shed 24' x 48' x 10' clearance — Four sliding doors in front, no posts inside . . . . .	0.30
.741 -6	Combine Shed — 30' wide x length variable x 12' 8" clearance. Continuous sliding doors front and rear providing openings 29' wide, 12' high. Bill of materials . . . . .	0.30
.741 -11	Machine Shed 28' x 60' x 9' clearance — Open front, windows in back, earth or cinder floor. Unequal gable roof . . . . .	0.20
.741 -13	Machine Shed 20' x 40' x 8' 8" clearance — Two sliding doors, in side 9' wide. Lumber construction on concrete foundation . . . . .	0.60
.741 -17	Storage Shed — 40' x length variable x 14' 6" clearance— Round roof machine shed for housing large machines such as combines, or for temporary storage of grain. Built up of 1" x 4". Corrugated iron or aluminum roof. With bill of materials. Second sheet shows construction of movable grain bins to be used in this building. No roof on bins, roof could be added to use bins outside. Bins may be knocked down into panels. 1000 bushel capacity . . . . .	0.60
.741 -18	Implement Shed — 20' x variable length x 10' clearance. Unequal gable roof. Open one side; posts on open side with clear spacing 9' 6" . . . . .	0.30
.741 -19	Utility Building 24' x 30'— Includes garage, woodshed, laundry, and fruit and vegetable storage. No details . . . . .	0.30
.741 -20	Farm Shop 24' x 30'— Gable roof, tool list, tool panel. No construction details . . . . .	0.30
X .741 -20A	Farm Shop . . . . .	No Charge

File Number		Price
.741 -21	Garage, One-car 12' x 20'— Gable roof, concrete floor, single wood wall, swinging doors.....	0.30
.741 -22	Garage, Two-car 20' x 20'— Gable roof, concrete floor....	0.30
.741 -23	Implement Shed and Shop 26' x 80'— Gable roof, center section for large machinery. Vertical boards or metal siding.	0.90
.741 -24	Implement Shed and Shop 48' x 20' x 8' 2"— Frame construction, wood or metal siding, sliding doors.....	0.30
.741 -25	Farm Shop for End of Machine Shed 24' x 30'— Gable roof, concrete masonry construction. Plan view shows shop arrangement. Concrete block construction.....	0.30
.741 -26	Pole Machine Shed— Frame of poles set in ground. 24' x 36'. Open front. Construction details. 1 sheet.....	0.20
.743 -1	Covered Manure Pit 16' x 33' 6" x 6' Deep— Concrete tank with wood frame roof. Bill of materials.....	0.30
.745 -1	Small Warehouse 15' 8" x variable length— Shed roof. May be enlarged to twice original size. Bill of material. Corrugated metal or vertical board siding and roof.....	0.30

### Manufacturing and Processing Buildings

.751 -1A	Smoke House 6' x 8' x 8' high— Concrete block or wood construction. Bill of materials. Fire box outside of building.	0.30
.751 -3	Slaughter House 48' x 26'— Loading shed on one end with pig pen and cattle pen on other end. Storage room and cooling room. Frame construction with concrete floor and foundation.....	0.60
.752 -6	Three-room Milk House 12' x 24'— For 50-100 cows. Maximum cold-box capacity 15 ten-gallon cans or 36 cases bottled milk. With loading platform and compressor room.	0.60
.752 -9	Three-room Milk House 12' x 24'— Milk room, wash room and boiler room. Wood construction on concrete base....	0.30
.752 -10	Milk House Plans— Concrete construction showing six different arrangements in plan views. Sizes 12' x 16', 12' x 14', 12' x 10'. With details.....	0.60
.752 -11	Milk House Plans— Similar to .752-10 with concrete block and frame construction details.....	0.60
.7521-2	Milk Can Shelter and Cart— Roadside shelter for protecting cans. Four-can milk cart built from salvaged automobile parts.....	0.10
.7521-3	Milk Can Rack— 5' long, wood construction.....	0.10
X .7521-5	Milk Can Cart— One-can cart, wheelbarrow type, and four-can cart, two wheels.....	No Charge

### Livestock Equipment

.771 -1	Stock Tank Water Heater for Open Tank— For use in tanks and troughs, standard immersion-type heater mounted in standard pipe fittings.....	0.10
.771 -3	Stock Tank Water Heater— Cylindrical steel tank heated with G.E. hotbed wire.....	0.10
.771 -4	Stock Watering Tank 3' 6" x 11'— Reinforced concrete construction.....	0.10
.772 -2	Portable Hay Rack 6' x 16'— Feed-lot rack for hay, on skids. Capacity 1000 pounds loose hay.....	0.10
.772 -3	Hay Feed Rack 4' x 28' x 10"— For cattle, on posts, solid board bottom and trough, 2" x 4" slats, height 7' 10" above trough. Bill of materials.....	0.30



File Number		Price
.772 -4	Dairy Cattle Feed Rack 4' x 16' x 56" high — Solid bottom and 12" solid sides, stanchion type, room for 28 cows, wood construction, on skids.	0.20
.772 -5	Bunk for Cattle — Size 12' x 4' or 16' x 5' high; portable feed rack, solid bottom 2' above ground, 1" x 4", sloping side, on 4" x 4" posts.	0.30
.772 -7	Hay Feed Rack 4' x 12' x 5' high — On skids, solid bottom and trough, 1" x 4" slats, 2' 10" above trough.	0.20
.772 -10	Stationary Hay Rack — For long hay. 4' 6" x 20'.	0.10
.772 -11	Cattle Feeding Rack for Hay 6' 6" x 22' — V-type rack, large hay capacity. Bill of materials.	0.30
.772 -13	Self-feeder for Chopped Hay — 18' wide, 26' high, length as desired. Timber frame on concrete foundation. For use outside.	0.10
.772 -14	Calf-Creep — 8' 6" x 12'. Self-feeder storage in center, creeps on both sides. Lumber construction. Portable, on skids.	0.10
.774 -2	Dehorning Chute 4' 6" x 8' — One side fixed, other movable; 3 types of stanchion gates.	0.30
.774 -3	Dehorning Chute — Walk-through type, one side movable, other solid, head slot in gate, sliding door in rear. No construction details.	0.20
.774 -4	Hoof Trimming Rack — Timber construction. With sling and hoist. Walk in—back out. Stanchion and head-tie; foot-ties for unruly animals.	0.30
.774 -5	Brand Inspection Chute — Timber constructions. Details of chute and gate, and arrangement of holding pens, alleys, gates and chute.	0.30
.775 -1	Breeding Rack 4' x 4' x 9' — For cattle.	0.30
X .776 -1	Cattle Guard.	No Charge
.776 -2	Cattle Guard — 2" pipe on concrete foundation. Machines can cross, cattle cannot.	0.10
.776 -4A	Farm Gate 4' x 12' — Built of 1" x 4" .	0.10
.776 -14	Automatic Gate — Device for opening and closing gate from automobile or other vehicle.	0.30
.776 -16	Cattle Guard — Wood construction on concrete foundation. See also .776-1-2.	0.20
.776 -17	Cattle Guard — Same as .776-16 except 2" pipe are used in floor.	0.20
.7767-9	Electric Stock Tank Heater — 250-watt immersion heater. Mounted in steel drum.	0.10

### Miscellaneous Buildings

.794 -1	Fruit and Vegetable Stand 6' x 12' — For roadside display, hinged front used as counter when swung down.	0.30
.794 -2	Signs for Roadside Stands — Three types of signs for advertising produce for sale, to be used with .794-1.	0.20
.794 -3	Roadside Sign 2' x 3' — Tin reflector, electric lights.	0.10
.794 -4	Roadside Stand 24' x 28' — Sales, grading, and receiving space.	0.30
.794 -5	Roadside Stand 12' x 28' — Counter, display racks, concrete foundation. More elaborate construction and more expensive than .794-4.	0.30
.794 -6	Sash Greenhouse 10' x 18' — Glass roof, concrete block walls.	0.30

File Number		Price
.795 -1	<b>Permanent-Type Frame</b> — Construction details for 6' x 6' cold frame.....	0.10
.795 -2	<b>Temporary-Type Frame</b> — Cold frame with electric heating wire element.....	0.10
.795 -3	<b>Wiring Layouts for Electric Hotbeds</b> — For hotbeds 6' x 6', 6' x 12', and 6' x 18'. Wiring diagram for 110- and 220-volt circuits.....	0.10
.795 -5A	<b>Permanent "A" Type Frame</b> — Combination hotbed and small greenhouse made of standard hotbed sash in the form of an "A" and suited to year-around use.....	0.10
.795 5-B	<b>Permanent "A" Type Frame</b> — Larger scale drawing of .795-5A.....	0.10
.795 -6	<b>Window-Ledge Frame</b> — For use under windows outside.....	0.10
.795 -7	<b>One-Sash Hotbed Frame 3' x 6' x 18"</b> — Insulated, for electric operation.....	0.10
.795 -8	<b>Two-Sash Hotbed Frame 3' x 6' x 16"</b> — Similar to .795-7, but for two top sashes.....	0.10
.795 -9	<b>Seed Germinator</b> — Insulated box with tray and cloth folder for germinating seed.....	0.10

## Structural Equipment

### Ventilation

.8341-1	<b>Evaporating Fan Cooler</b> — For home or office. Electric fan and canvas water bag.....	0.10
---------	--	------

### Refrigeration and Cooling

.843 -1	<b>12-Case Egg Cooler</b> — Insulated box; cooled by evaporation of water from pan on top. Electric fan.....	0.30
.845 -3	<b>Iceless Cooler</b> — Capacity 12 cases. Cools contents by evaporation of water from burlap wicks from a pan on top of box.....	0.30
.845 -8	<b>Mechanical Refrigerator</b> — 4' 8" x 3' x 8' (inside dimensions). Walk-in, Reach-in Type. Does not include details of a refrigerating mechanism.....	1.20
.845 -11	<b>Dairy Cold Box</b> — Construction details and arrangement of brine tank, cold box, compressor, and pipes. Table gives dimensions for five sizes.....	0.90
.845 -12	<b>Meat Curing Box</b> — 4' 10 $\frac{1}{4}$ " x 7' x 11 $\frac{3}{4}$ " (outside dimensions). Lift-top Type. Capacity 1800 to 2000 pounds meat, 1600 pounds ice.....	0.30
.845 -19	<b>Milk Cooling Tank</b> — For milk cans in water bath. Insulated concrete, 4, 6, 8, 10, or 12 can size.....	0.30
.845 -20	<b>Two-Temperature Walk-in Refrigerator for the Farm</b> — Outside 8' 8" x 10' 8" x 8', walls 7" to 10" thick. Deep freeze compartment with capacity about 40 cu. ft. on 8 shelves. Chill room capacity 60 cu. ft. on shelves plus 60 cu. ft. of space for hung meats. Includes insulation details and refrigeration coils, plate and compressor layout. Complete working drawings, 4 sheets.....	1.20



**Sanitation and Water Supply**

File Number		Price
X .8511-5	Concrete Tile Septic Tank — Two 4' x 3' concrete tile side by side on concrete base.....	No Charge
.8511-7	Waste Disposal System — Bathroom, septic tank, and distribution field.....	0.10
.8511-7A	Concrete Septic Tank Form — May be re-used several times.....	0.10
.8555-10	Hot Water Tank — With connections to range, sink, pump, supply, and bath room.....	0.10

## OTHER IDAHO PUBLICATIONS FOR FARM BUILDERS

- Pole Frame Construction for Idaho Farm Buildings.—Extension Bulletin No. 194.
- Woodfiber Diatomite Concrete.—Extension Bulletin No. 179.
- Your Farmhouse—Plan It to Fit Your Needs.—Extension Bulletin No. 180.
- Your Electric Farm Shop—Extension Bulletin No. 202.
- Idaho Dairy Barn and Milkhouse Requirements for Graded Milk Production.—Extension Circular No. 104.
- Plan Your Farm for Good Farm Living.—Extension Bulletin No. 186.
- Idaho's Portable Sheep Loader.—Experiment Station Bulletin No. 203.
- Tramp Iron Removal from Livestock Feeds.—Reprint.
- Steps That Can Be Taken to Reduce Mechanical Damage to Potatoes at Harvest Time.—Experiment Station Bulletin No. 278.
- Sprinkler Irrigation.—P N W Bulletin No. 3.
- Characteristics of Irrigation Water in Idaho.—Research Bulletin No. 19.
- Use the Farm Level for Better Irrigation and Soil Conservation.—Extension Bulletin No. 171.
- Costs of Sprinkler Irrigation on Idaho Farms.—Experiment Station Bulletin No. 287.

### FARM ELECTRIFICATION LEAFLETS

- |   |  |
|---|--|
| No. 2 Milk Cooling on Idaho Farms                                 | No. 19 Electrical Control Devices for Farm Use             |
| No. 3 Farm Freezers   | No. 20 Let's Take Care of Our Farm Electrical Equipment    |
| No. 4 Electric Farm Water Systems                                 | No. 21 V-Belts for Farm Electrical Motors                  |
| No. 6 Electric Motors for the Farm                                | No. 22 Laying House Ventilation                            |
| No. 7 Electric Light for the Farm                                 | No. 23 Supplemental Electric Heat for Farm Buildings       |
| No. 8 Electric Heating for the Farm                               | No. 24 New Electrical Equipment for the Farm and Home      |
| No. 9 Electric Brooding on the Farm                               | No. 25 Electrical Power Choring in Livestock Feed Handling |
| No. 10 Sprinkler Irrigation in Idaho                              | No. 26 Electricity on the Farm for Utility and Safety      |
| No. 12 Electric De-Icers for Farm Stock Tanks                     | No. 29 Electric Fences, Branding Irons and Dehorners       |
| No. 14 Electric Farm Welders                                      |  |
| No. 15 Labor-saving Ideas   |  |
| No. 17 Kitchen and Laundry Planning for the Electrified Farm Home |  |
| No. 18 New and Useful Electrical Farm Equipment                   |  |

*These may be obtained from the University of Idaho, College of Agriculture, Moscow;  
from the University Agricultural Extension Service, State House, Boise;  
or from your county agricultural agent.*

CO-OPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS,  
UNIVERSITY OF IDAHO, COLLEGE OF AGRICULTURE, AND  
UNITED STATES DEPARTMENT OF AGRICULTURE  
COOPERATING

D. R. THEOPHILUS, Director

Issued in furtherance of the acts of May 8 and June 30, 1914