

Anatomy of a **Barn**

Your Guide to Pacific Northwest Types, Styles & Character Defining Features

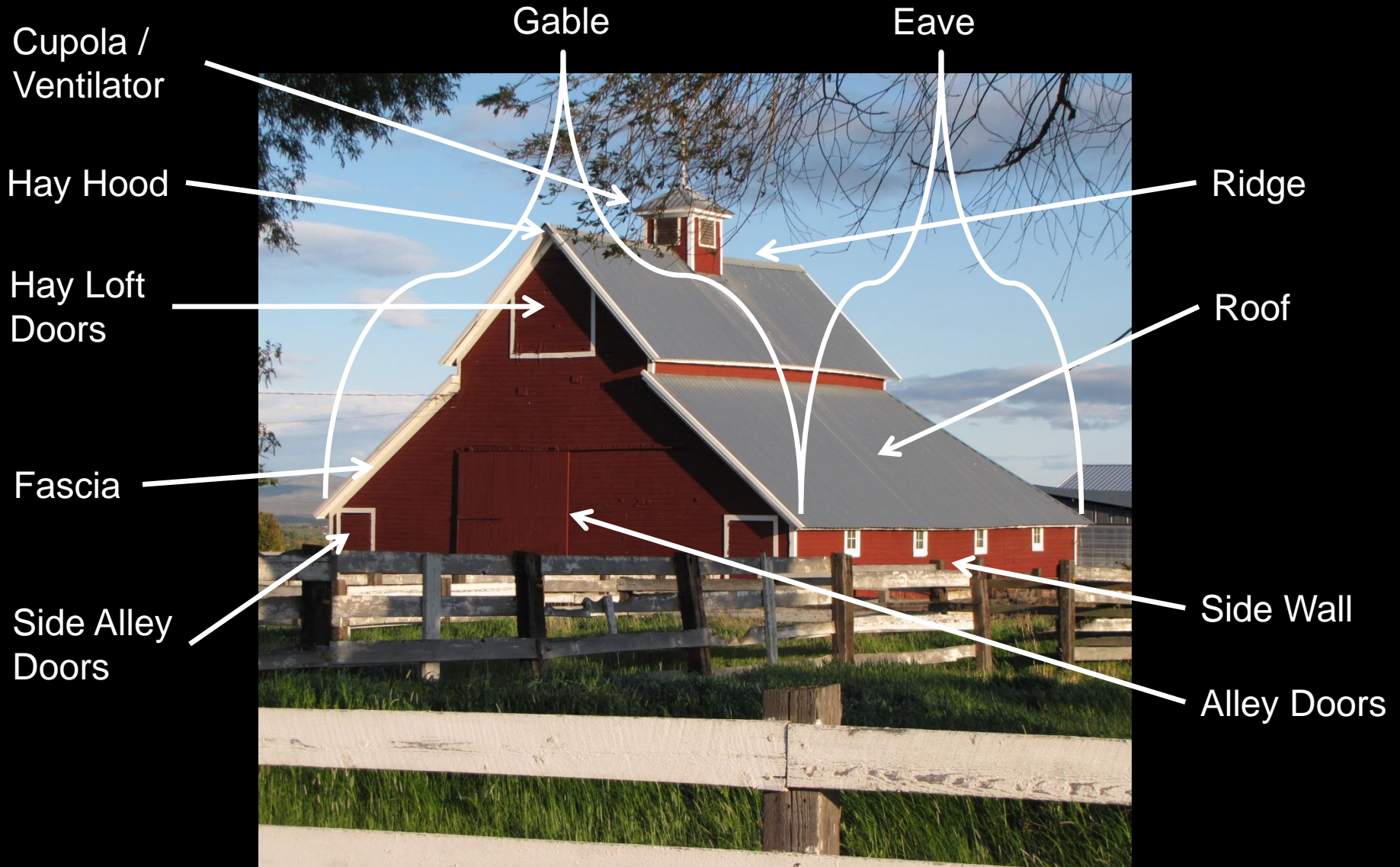


Michael Houser,
*Washington State
Architectural Historian*



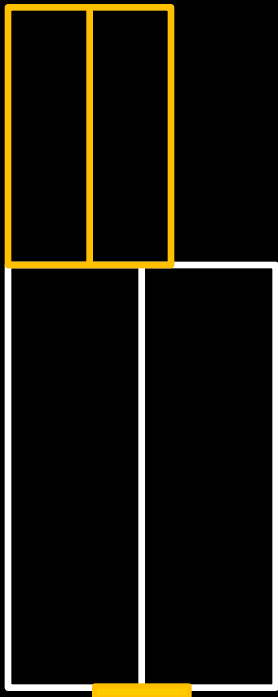
Sept - 2019

Barn Elements

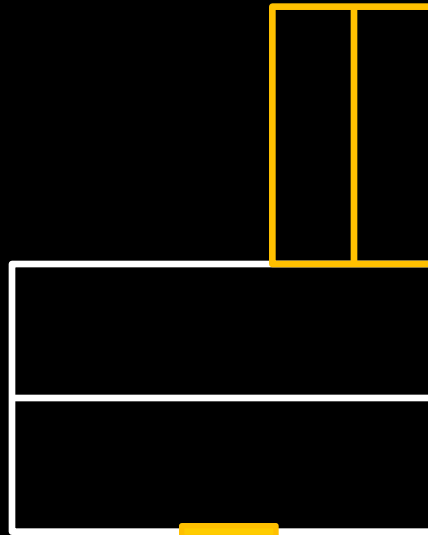


Barn Elements

Wing **vs.** Ell **vs.** Lean-to



Wing



Ell

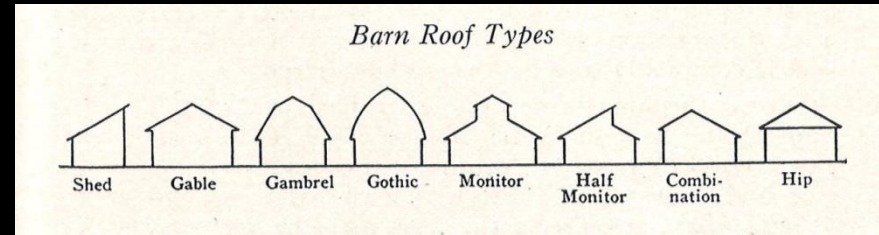


Lean-to

Barn Plan View

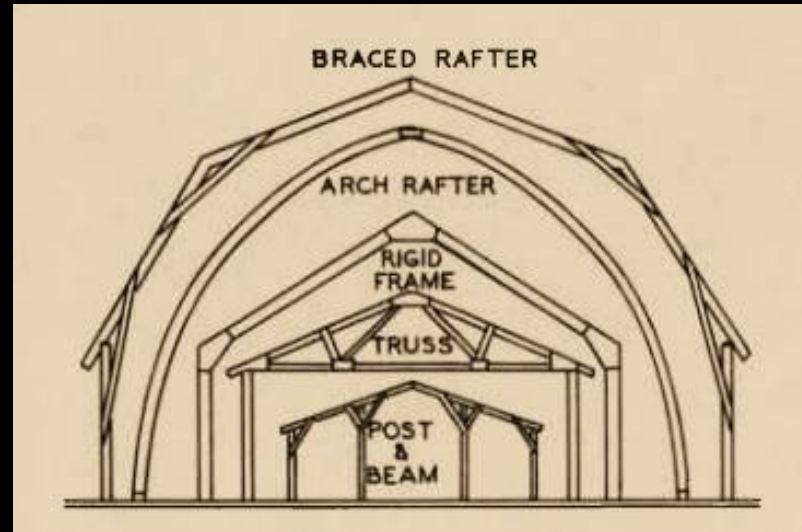
Barn

Forms and Types




Barn classification can be based on:

- Use/Purpose,
- Plan and shape,
- Framing system,
- Roof form ← DAHP method



HALLOWEEN MASQUERADE DANCE
TOMLINSON'S BARN
 3½ Miles West of Plaza on Bonnie Lake-Plaza Road

Souvenirs
Prize Waltz
Three Special Prizes

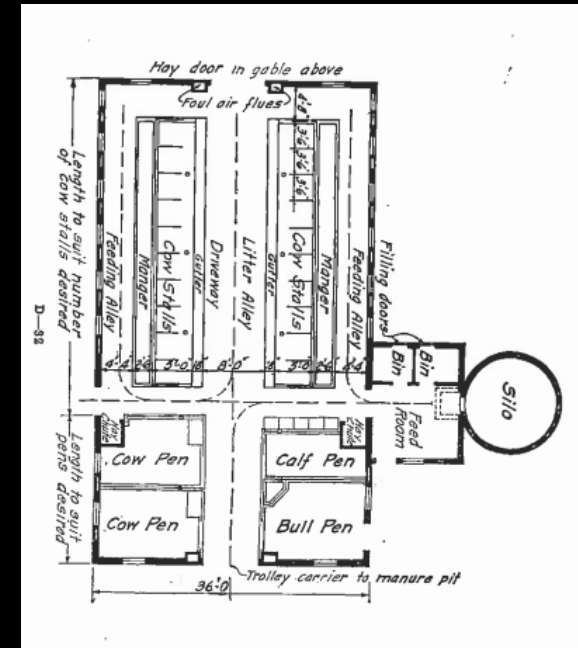


Special Feature
DOT & DASH
High Class Entertainers

Best Character Costume—Gentleman
 Best Character Costume—Lady
 Most Comical Costume

CHET GRIFFITH'S NIGHT HAWK ENTERTAINERS

Lunch Room In Connection



Barn - Forms & Types

Gable (sometimes referred to as an English / Yankee barn)



Shed, OR



Boyd, OR



Champoeg State Park, OR



Hillsboro, OR



Kitsap County, WA

Barn - Forms & Types

Gable (sometimes referred to as an English barn)



Adams County, WA



Adams, OR



Peirce County, WA



Lincoln County, WA



Skagit County, WA



Dayville, OR

Barn - Forms & Types

Salt Box (integrated lean-to)



Dayton, WA



Spokane County, WA



Wallowa Valley, OR



Brownsville, OR



Pierce County, WA

Barn - Forms & Types

Salt Box (integrated lean-to)



Benton County, OR



Finley National Wildlife
Refuge, Benton County, OR



Philomath, OR



Waitsburg, WA



Poulsbo, WA

Barn - Forms & Types

Dutch Barn (roof projecting down to 1st floor)



Stevens County, WA



Dufur, OR



Benton County, OR



Snohomish County, WA



LaPine, OR

Barn - Forms & Types

Dutch Barn (roof projecting down to 1st floor)



Labanon, OR



Colfax, WA



Skagit County, WA



Victor Point, OR

Barn - Forms & Types

Broken Gable / Gable with High Lean-tos



Klamath Falls, OR



Walla Walla, WA



Mount Angel, OR



San Juan County, WA



Hayward, OR

Barn - Forms & Types

Broken Gable / Gable with High Lean-tos



Diamond, OR



Deschutes County, OR



Baker, OR



Walla Walla County, WA

Barn - Forms & Types

Gable-on-Hip



Drake Crossing, OR



Snohomish, WA



Coupeville, WA



Burnt Wood, OR

Barn - Forms & Types

Gable-on-Hip



Walla Walla County, WA



Weston, OR



Dufur, OR



Molalla, OR



San Juan County, WA

Barn - Forms & Types

English Gambrel



Thurston County, WA



Ellensburg, WA



Enterprise, OR



Donald, OR



Lynden, WA

Barn - Forms & Types

English Gambrel



Tangent, OR



Columbia County, WA



Near
Crater
Lake, OR



Lincoln County, WA

Barn - Forms & Types

Dutch Gambrel (note flare at eave line)



Fairfield, WA



Elgin, OR



Grays Harbor, WA



Scappose, OR



Willamette Valley, OR



Salem, OR

Barn - Forms & Types

Dutch Gambrel (note flare at eave line)



Woodburn, OR



Pendleton, OR



Pend Oreille County, WA



Troutdale, OR



Island County, WA

Barn - Forms & Types

Gambrel w/Lean - To



Pierce County, WA



Mount Vernon, WA



Elgin, OR



Yakima County, WA

Deer Park, WA

Barn - Forms & Types

Gambrel w/Lean - To



Eugene, OR



Scholls, OR



Snohomish County, WA



Sheridan, OR

Barn - Forms & Types

Hip



Coupeville, WA



Condon, OR



Moxee, WA



Vancouver, WA

Barn - Forms & Types

Gothic (pointed arch roof truss)



Keizer, OR



Lacey, WA



Vancouver, WA



Willamette Valley, OR



Wilbur, WA

Barn - Forms & Types

Gothic (pointed arch roof truss)



Stayton, OR



Colfax, WA



Uniontown, WA



Weston, OR

Barn - Forms & Types

Bow / Rainbow Truss

(note completely arched trusses)



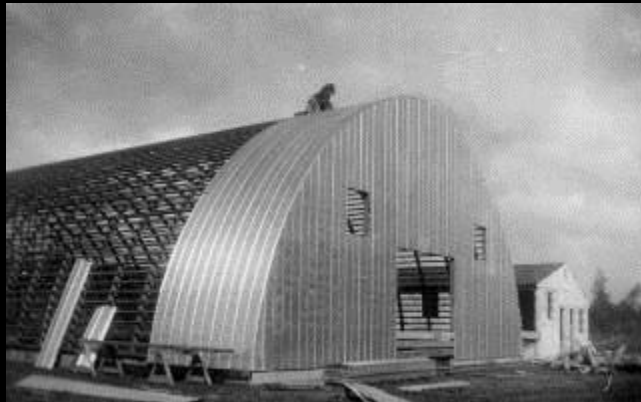
King County, WA



Pullman, WA



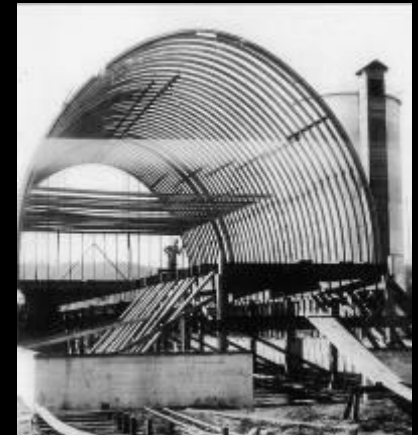
Ridgefield, WA



Satsop, WA



Sedro Wooley, WA

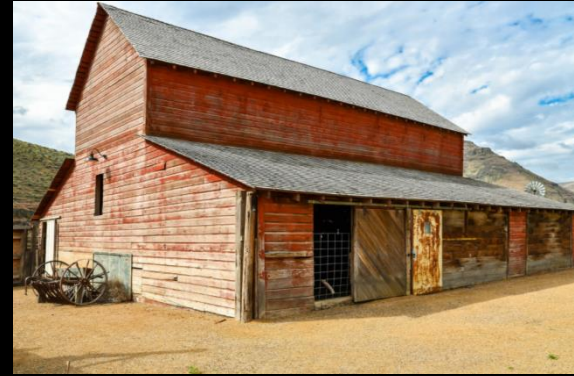


Barn - Forms & Types

Western Barn/ Monitor Barn / Basilican



Joseph, OR



Wasco, OR



Pouso, WA



Yakima County, WA



Skagit County, WA

Barn - Forms & Types

Western Barn/ Monitor Barn / Basilican



Stanwood, WA



Joseph, OR



Linn County, OR



Thurston County, WA

Barn - Forms & Types

Conical / Round / Centric Barns



Klickitat County, WA



Sisters, OR



Lostine, OR



Medical
Lake,
WA



Joseph, OR



Diamond, OR



St. Johns, WA

Barn - Forms & Types

Centric / Round / Conical Barns



Lakeview, OR



Hillsboro, OR



Pullman, WA



Grandview, WA



Blachly, OR



Lookingglass, OR

Barn Paint

HOMEGUARD SUPER QUALITY BARN PAINT

This brilliant red, high gloss, top grade paint will protect your property for years. It is economical because it wears so long. Barn paint must provide maximum protection at minimum cost. Made from the finest ingredients available . . . assures great covering power and extreme durability. Each of its fine, balanced characteristics prove this to be, "a barn paint of real quality."

HOMEGUARD SUPER QUALITY

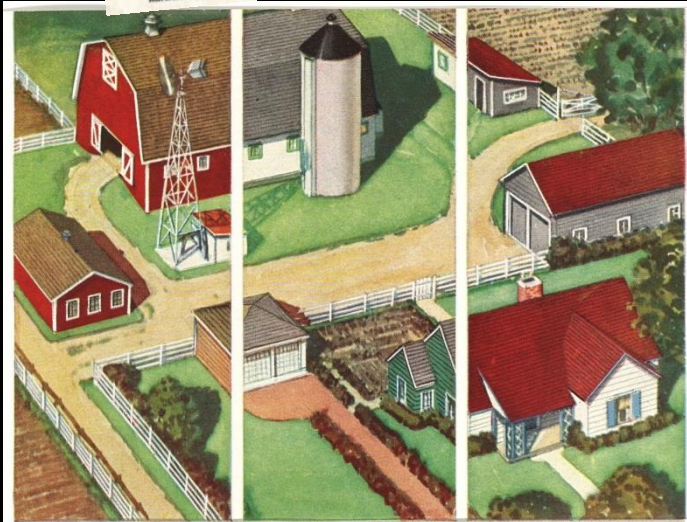
PAINT FINISHES FOR EVERY SURFACE

- INTERIOR GLOSS ENAMEL
- SEMI-GLOSS FINISH
- HOUSEHOLD ENAMEL
- DURA-TONE
- COLOR VARNISH
- AUTO ENAMEL
- EXTERIOR TRIM
- PORCH & FLOOR ENAMEL
- SHINGLE STAIN
- IMPLEMENT ENAMEL
- BARN PAINT

GAMBLE STORES
MINNEAPOLIS

WESTERN STORES
LOS ANGELES





LIFE IS COLORFUL DOWN ON THE FARM

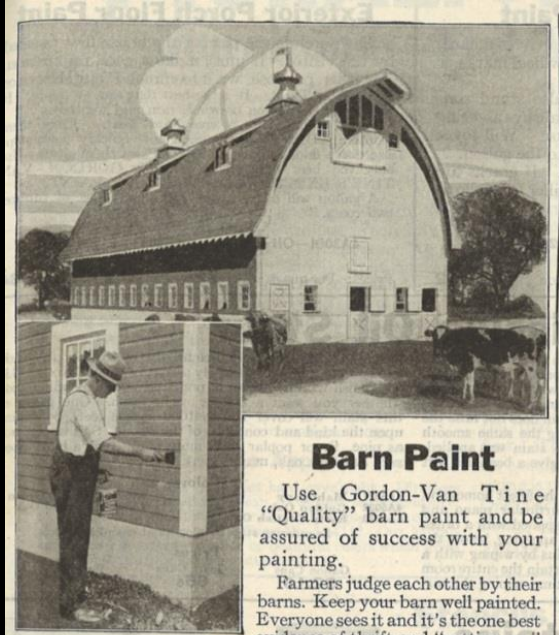
Red, for the barn and sheds, stands out in colorful contrast to the surrounding country. Natural shingle roof and White trim. Garage, Colonial Yellow. Fence, White. Windmill, Aluminum paint.

Shades of green with white and gray make up this attractive scene! Verd Green house with White trim. White barn has Silver Gray shingles and Dark Green trim. Garage and fence, White.

For your White house consider Light Blue trim, a Venetian Red roof, for an attractive color scheme. French Gray sheds have Venetian Red roofs. Fence is White. Colors blend together nicely!



Barn Paint



Barn Paint

Use Gordon-Van Tine "Quality" barn paint and be assured of success with your painting.

Farmers judge each other by their barns. Keep your barn well painted. Everyone sees it and it's the one best evidence of thrift and "getting on."

Our "Quality" brand barn paint is good and we know it. We don't sell anything but good paint. It is equally good for shingles or metal roofs, fences, bridges, grain elevators and silos. It will lengthen the life of shingles and metal roofing. It is a wood preservative and will add years to the life of your building.

You may use this paint with perfect confidence, knowing that we will stand back of every can or barrel. Only the best ingredients are used. It is ground to an unusual fineness and thoroughly mixed and remixed by the most up-to-date machinery.

One gallon of Quality barn paint can be depended upon to cover about 250 square feet of surface, two full coats. Measure for it by the "square foot" method. You will never regret having given it a trial. Colors (See Page 65).

4A2001—Light Gray. 4A2002—Venetian Red. 4A2003—Mineral Red.

PRICES PER GALLON

25 and 50 Gallon Barrels	Reds \$1.33 Gray 1.60	5 Gallon Kits	Reds \$1.42 Gray 1.70	1 Gallon Cans	Reds \$1.55 Gray 1.80
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Gordon-Van Tine
Co. Catalogue –
c.1924

Jim Brown's
Bargain Book–
1936

BARN PAINT A most durable and handsome paint for barns and outbuildings. Prices of lead and zinc make gray cost more than reds. **See index on opposite page**



4A2001 Light Gray



4A2002 Venetian Red



4A2003 Mineral Red

Jim Brown's BARN PAINTS

Quality Barn Paints at Money-Saving Prices

Wearbest Barn Paint As Low As \$1.00 Per Gal.

Super-Grade Barn Paint As Low As \$1.43 Per Gal.

Real Paint But Low Priced

For Use On Expensive Barns

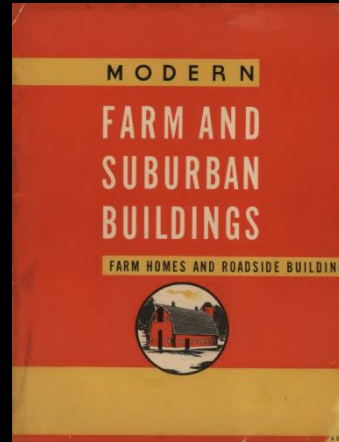
Jim Brown's NEW WHITE CREOSOTE BARN PAINT

Jim Brown Fence & Wire Co., Cleveland, Ohio.—Memphis, Tenn.—Address Nearest Office



Barn Plans

- Farmer
- Itinerant Builder
- Architect
- Plan Service
- Extension Office
- Lumber Yard
- Factory Pre /Ready-Cut

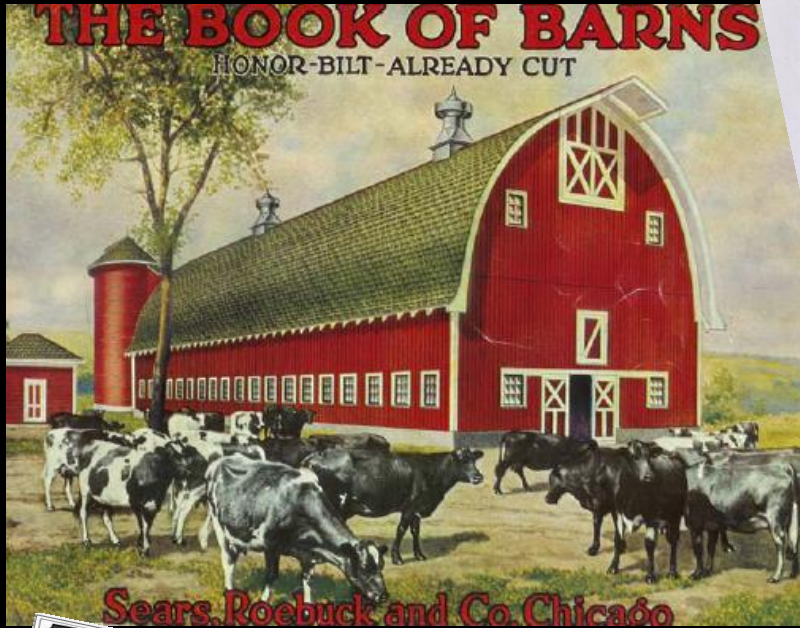


BLUE PRINTS
AND
COMPLETE SPECIFICATIONS
SHOULD BE USED WHEN BUILDING

Because you will know in advance how the building will look.
Because you will know in advance what the building will cost.
Because you will save money by saving the contractor's time.
Because we can furnish these plans and specifications at such a low price that you cannot afford to do without them.

Come to Our Office and Get Our Special Blue-Print Proposition

Barn Plans Ready Cut



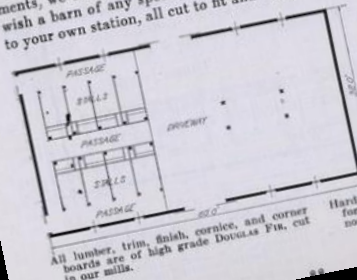
Sears & Roebuck - 1919



Fenner Barn No. 422

BARN No. 422, the standard size of which is 36x60, is a good sized barn for general use. The strong, gambrel roof adds many cubic feet of space to the already large loft, and makes an excellent outside appearance. The driveway goes clear through the barn, in the center. To the left of this driveway are stalls and accommodations for live stock, while the space to the right may be used for storing wagons and implements, or may be used for grain and feed. The barn in the picture is equipped with a silo, which, of course, we do not furnish.

It is our policy to show in this catalog only those barns which are of accepted and standard design that they are recognized as the leaders of where. Should the interior arrangement need changing to meet your requirements, we can change it, not only in this, but in any of our barns. Or, wish a barn of any special design, it will pay you to get our prices, and to your own station, all cut to fit and ready to put together easily and



SPECIFICATION

Size, 36'x60'.
Celling heights, first tier, 14'.
Interior walls, 14'.
Center girders and sills, 6x8.
Posts, 6x6 and 4x4.
First floor joists, under stalls, 2x8, 16" O. C.
Loft joists, 2x10, 16" O. C.
Studding, 2x6, 24" O. C.
Rafters, 2x4, 24" O. C.
Sheathing for roof, shingles.
Roof, Extra * A * red cedar shingles.
Floors, stalls, 1x12 plank, and loft, 1x4 flooring.
Hardware, nails, hinges, locks, and corner boards are of high grade DOUGLAS FIR, cut in our mills.



Fenner Barn No. 421

BARN No. 421 is designed for a small farm or for a person living in a small town who wishes to keep a number of horses or cattle. It is a standard design that has met with general approval and really allows a great many square feet of highly usable room for the price. Such a good sturdy barn as this greatly enhances the value as well as the looks of any place.

There are five stalls with a light, well ventilated passage-way in the rear. Each stall is provided with feed boxes, and three large feed bins are provided in a convenient location. Note also the tool room. The left floor is left in large, and is in no proportion to the size of the barn, being calculated to hold enough feed to supply animals for a year. The mission is to ventilate and carry off all odors, which it does very effectively.



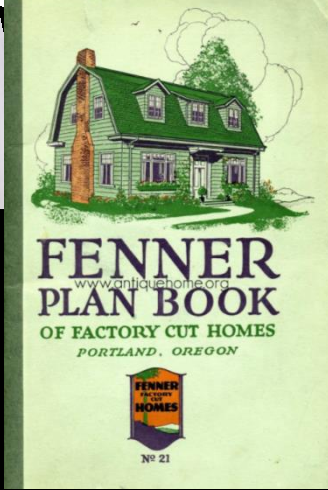
SPECIFICATIONS

Size, 28'x36'.
Center girders and sills, 6x8.
Posts, 6x6 and 4x4.
First floor joists under stalls, 2x8, 16" O. C.
Studding, 2x4, 16" O. C.
Rafters, 2x4, 24" O. C.
Sheathing for roof, shingles.
Roof, Extra * A * red cedar shingles.
Floors, stalls, 1x12 plank, and loft, 1x4 flooring.
Hardware, nails, hinges, locks, and corner boards are of high grade DOUGLAS FIR, cut in our mills.



Gordon Van Tine- 1915

Fenner Manufacturing Co.,
Portland, OR - 1921



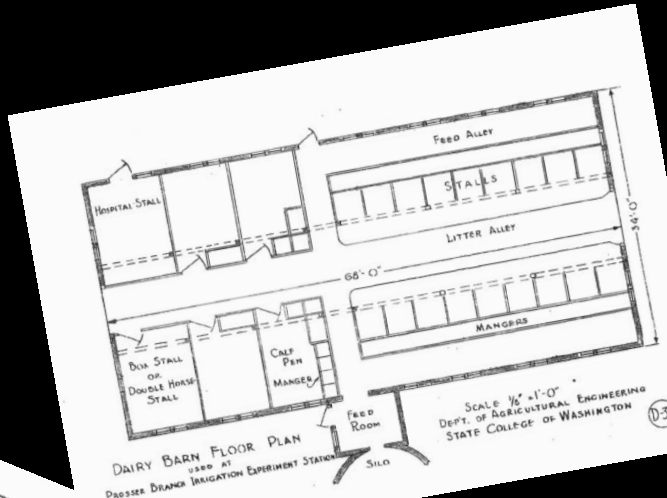
Barn Plans Extension Service

STATE AGRICULTURAL EXPERIMENT STATION
Pullman, Washington, September 1, 1915

POPULAR BULLETIN No. 95

The Dairy Barn and Milk House, How to Construct Them

By
R. E. HUNDERTMARK
Instructor in Dairy Production, State College
of Washington
and
A. B. NYSTROM
Dairy Husbandman of the Experiment Station



WSU Extension - 1934

Planning Farm Buildings

Selecting the Type of Farm Building
Consider the following to help decide the type of building that will best serve your needs. Consider floor layout and spacing of stalls, location of water, feed, and manure disposal, and the cost of the building. The layout of the building should be in the right-hand column of the plan. The location of the building should be in the left-hand column of the plan.

Location—Select a site that is level, well-drained, and free from trees and other obstructions. The site should be in the right-hand column of the plan. The location of the building should be in the left-hand column of the plan.

Orientation—The building should be oriented so that the sun is on the right-hand side of the plan. The orientation of the building should be in the left-hand column of the plan.

Size—The building should be large enough to accommodate the number of animals that you plan to raise. The size of the building should be in the left-hand column of the plan.

Construction—The building should be constructed of a material that is durable and fire-resistant. The construction of the building should be in the left-hand column of the plan.

Cost—The building should be constructed at a cost that is reasonable for the type of building that you need. The cost of the building should be in the left-hand column of the plan.

Materials—Select materials that are of good quality and that are readily available. The materials of the building should be in the left-hand column of the plan.

Design—The building should be designed to be functional and efficient. The design of the building should be in the left-hand column of the plan.

Installation—The building should be installed in a location that is convenient for the farmer. The installation of the building should be in the left-hand column of the plan.

Maintenance—The building should be maintained in good condition. The maintenance of the building should be in the left-hand column of the plan.

Disposal—The building should be disposed of in a manner that is safe and sanitary. The disposal of the building should be in the left-hand column of the plan.

Extension Circular 2026
EXTENSION SERVICE

extension bulletin no. 483
STATE LIBRARY
OCT 7 1950
OLYMPIA, WASH.

PLANNING YOUR DAIRY BUILDINGS

october - 1953

farm structures series

WASHINGTON STATE LIBRARY
STATE DEPOSITORY COPY

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WA STATE LIBRARY

extension service—Institute of agricultural sciences
state college of washington—pullman, washington

WSU Extension - 1953

WSU Extension - 1915

OSU Extension - 1981

Smith-Lever Act of 1914

Barn Plans Lumber Yard / Plan Service



Weyerhaeuser -
1946

Professionally Planned Farm Buildings

WITH COMPLETE BLUEPRINTS AND MATERIAL LISTS

Builders who are active in farm construction report that they are receiving valuable assistance from the Weyerhaeuser 4-Square Farm Building Service. It enables them to erect professionally planned farm buildings that give greater satisfaction to farmers, while the blueprints and accurate material lists make for easier, faster construction.

Weyerhaeuser developed this Service with the cooperation of experts in many fields of agriculture... animal husbandry specialists, crop men, farm structure engineers, home economists and experienced farmers and farm managers.

Out of their knowledge and experience good buildings must meet to be classified as truly modern and efficient structures. First, they must meet functional or use requirements in order to serve an ideal farm both. Second, they must meet standards of durable, economical construction.

The 4-Square Farm Building Service, with its access of modern designs, is ready for your use in service farm prospects. We will gladly send, on your request, the 64 page book titled, "Modern Homes and Buildings For The Farm" which illustrates and describes many of the Homes and Service Buildings. We will also send you the name of the Weyerhaeuser 4-Square Lumber Dealer in your community who has available complete blueprints and material lists for all the buildings in the Service. Write our Builders' Division.

Weyerhaeuser Sales Company
ST. PAUL 1, MINNESOTA
MARCH, 1935 - PRACTICAL BUILDING, CHICAGO 2 113

ASTORIA, OREGON

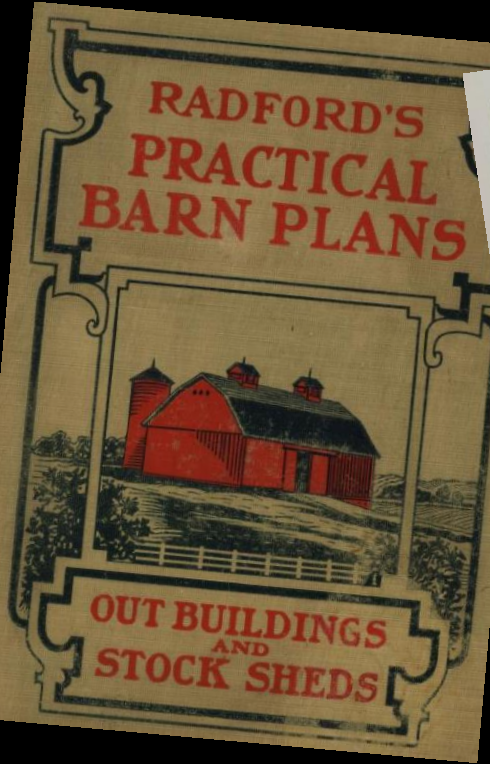
Mrs. Adelaide L. ...

ASTORIA LUMBER CO.

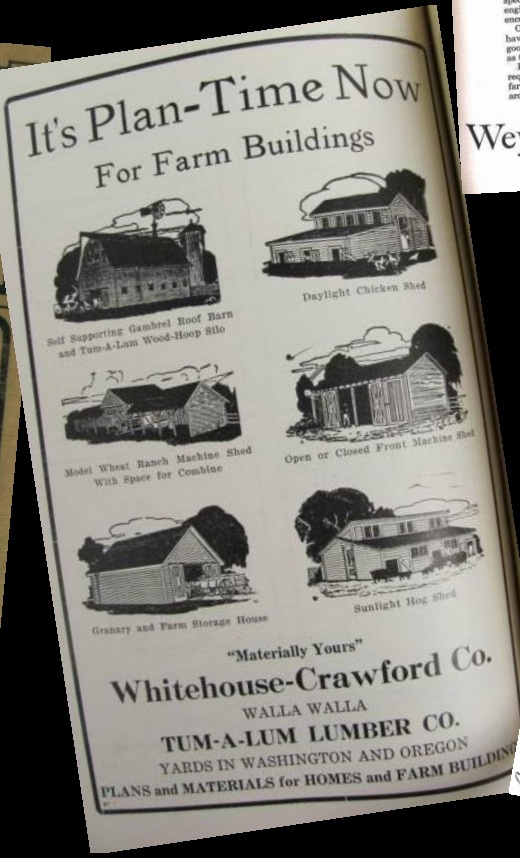
FOR CEDAR AND REDWOOD LUMBER, SHEDS AND FURNITURE

TERMS CASH

Date	Time	Qty	Description	Quantity	Price	Total
5	4 X 10	80	... / ...	800
10	2 X 10	18	... / ...	180
15	2 X 10	18	... / ...	180
18	2 X 10	18	... / ...	180
20	2 X 12	18	... / ...	216
25	2 X 12	18	... / ...	216
30	2 X 12	18	... / ...	216
35	2 X 12	18	... / ...	216
40	2 X 12	18	... / ...	216
45	2 X 12	18	... / ...	216
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260	2 X 12	18	... / ...	216
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290	2 X 12	18	... / ...	216
295	2 X 12	18	... / ...	216
300	2 X 12	18	... / ...	216



Radford's Practical
Barns Plans - 1907

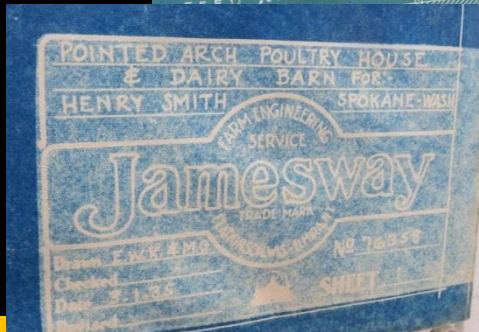
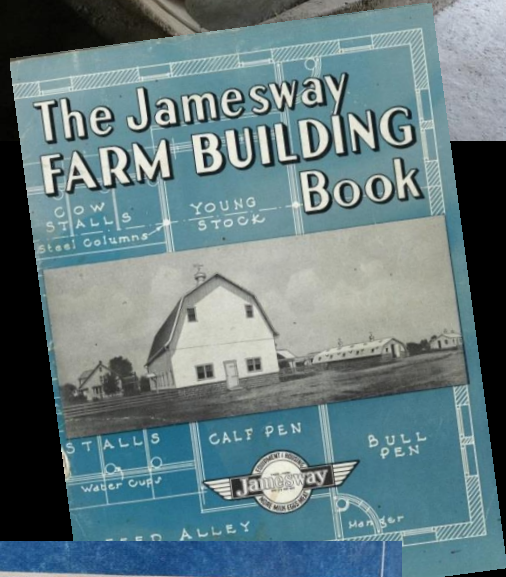
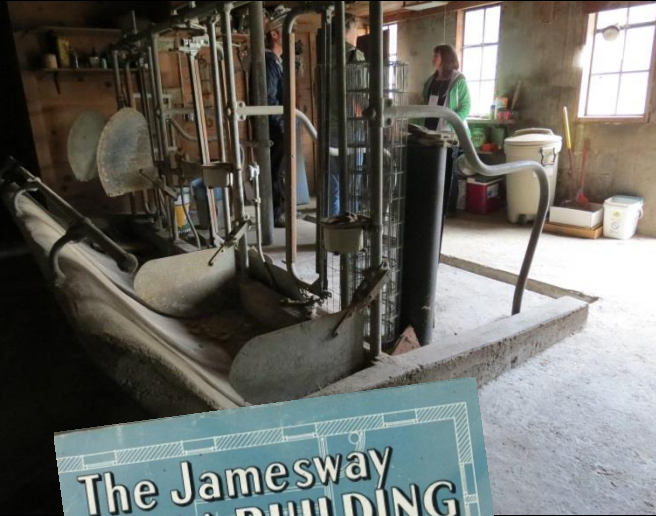


1881



1952

Jamesway Co.



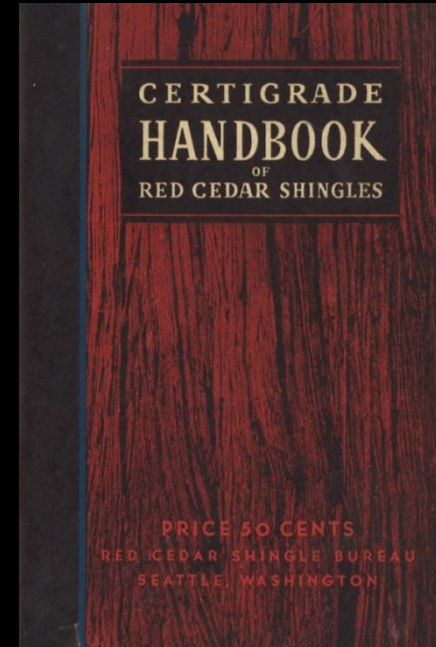
Barn Roofing

- Wood Shake / Shingle
- Standing Seam
- Corrugated Metal
- Asphalt



Barn

Roofing – Wood Shingle / Shake



Barn Roofing – Standing Seam

EXTRA HEAVY Two and Three-V Crimp Steel Roofing—U. S. STANDARD WEIGHTS

V Crimp Roofing is in Many Respects the Best of all the various styles of metal roofing. It may be laid over shingles, slates or can be nailed direct to the rafters, which should be spaced 24 inches apart, center to center, and must be covered on one end by a 12 inch or more flat bar. The ridge of the roof should be covered by a 12 inch or more flat bar. The ridge of the roof should be covered by a 12 inch or more flat bar. The ridge of the roof should be covered by a 12 inch or more flat bar.

It is Easily Laid and has many advantages over other kinds of steel roofing. It is especially adapted for factories, barns, sheds or temporary buildings, and, as it requires no soldering and folding or hammering of seams or joints, anyone who has ordinary mechanical ability can put it on. It has a neat, uniform appearance and is the most economical and the longest lived style of steel roofing made.

We Illustrate at the Left a sheet of Two-V Crimp Steel Roofing which has a covering width of 24 inches after lapsing one crimp over the other. This roofing comes in different lengths ranging from 10 to 10 feet, inclusive. In laying V Crimp Roofing the ends of the sheets should be lapped not less than 3 inches when used on roofs having a fall of not less than 2 inches to the foot. The Two-V Crimp sheet overlaps the One-V Crimp sheet. It is laid on the rafters in the same manner as the One-V Crimp sheet. The Two-V Crimp sheet should be lapped on the rafters. The wood V strip should be nailed on the top surface of the crimp.

FOCUS ON TWO-V CRIMP STEEL ROOFING.
State Number of Sheets in All Orders.

Catalog No.	24" x 10' Sheet				24" x 12' Sheet				Weight, per Sheet
	Price, Per Sheet	Price, Per 100 Sheets	Price, Per Sheet	Price, Per 100 Sheets					
48P3077	\$0.78	\$0.94	\$1.30	\$1.56	\$1.41	\$1.56	\$7.73	68 lbs.	
48P3078	1.17	1.41	1.65	1.88	2.11	2.34	11.89	85 lbs.	
48P3079	.92	1.10	1.29	1.48	1.66	1.84	9.20	83 lbs.	
48P3080	1.32	1.59	1.86	2.12	2.38	2.64	13.12	98 lbs.	

The above prices are for roofing only and do not include strips or nails. Prices on nails and strips shown above.

It requires 50 final feet of wood V strips and 1 pound barbed roofing nails for each square of the Two-V Crimp Roofing.

SEARS, ROEBUCK AND CO., CHICAGO, ILLINOIS.

SEE PAGE 5 FOR DETAILS

56¢ Per Sheet And Up

53¢ Per Sheet And Up

40¢ Per Sheet And Up

MANY WAREHOUSE SHIPPING POINTS
Sears warehouse shipping service is unsurpassed. One of our many shipping points is near you, and you will find it. Only another reason why you should buy all your roofing needs from Sears.

CRIMPED ROOFING
Made of exactly the same high quality materials as ALL-WEATHER Corrugated Roofing on opposite page.
• Choice of 2-V or 3-V also 6-V Leakproof Types.
• All sheets 24 inches wide, and in lengths shown below.
ALL-WEATHER V-Crimp Roofing over Building gives barns and other buildings a substantial appearance and an appearance of permanency. In addition to lowest known prices for material of this character, Sears give you First Quality—Full Gauge—Full Weight and Great Galvanizing. Strongly, securely and saving unparpassed by any other material. Properly painted, will last indefinitely. All sheets actually cover 24 in. in width allowing for crimp or overlap. Allow 6 in. to 10 in. end lap when used on roofs. 2 in. to 4 in. end lap siding. All prices in this catalogue are approximate and are subject to change.

Sears Patented Leak-Proof Steel Roofing
See detailed view above. The most important feature on the market. Water comes out on the under side of roofing by causing a circulation of air through the leak if any chance. Offered at prices usually paid for the ordinary roofing. Leaking stops at crimp and roofing is shipped ahead from your point of collection roofing on opposite page. See picture of this feature on page opposite.

Three-V-Crimp Steel Roofing
Two-V-Crimp Steel Roofing

Catalog Description	Length of Sheets	Price, Per Sheet	Price, Per 100 Sheets
24" x 10' 2-V	10, 12, 14, 16, 18, 20	\$0.78	\$77.30
24" x 12' 2-V	10, 12, 14, 16, 18, 20	\$0.92	\$92.00
24" x 10' 3-V	10, 12, 14, 16, 18, 20	\$1.17	\$117.00
24" x 12' 3-V	10, 12, 14, 16, 18, 20	\$1.32	\$132.00

PRICES ON THREE-V CRIMP STEEL ROOFING.
State Number of Sheets in All Orders.

The above prices are for roofing only and do not include strips or nails. Prices on nails and strips shown above.

It requires 100 final feet of wood V strips and 2 pounds of barbed roofing nails for each square of the Three-V Crimp Roofing.

IMPORTANT—V-Crimp Roofing is made as follows: 24 inches wide and has a covering width of 24 inches after lapsing one crimp over the other. This roofing comes in different lengths ranging from 10 to 10 feet, inclusive. In laying V-Crimp Roofing the ends of the sheets should be lapped not less than 3 inches when used on roofs having a fall of not less than 2 inches to the foot. The Three-V Crimp sheet overlaps the Two-V Crimp sheet. It is laid on the rafters in the same manner as the Two-V Crimp sheet. The Three-V Crimp sheet should be lapped on the rafters. The wood V strip should be nailed on the top surface of the crimp.

Sears & Roebuck Roofing Catalogue - 1939

Jim Brown METAL ROOFING Corrugated

Direct from Factory to You

Advantages of Metal Roofing

- It is fireproof.
- It is weatherproof.
- It is long lasting.
- It is easy to install.
- It is economical.
- It is clean.
- It is safe.
- It is strong.
- It is durable.
- It is light.
- It is flexible.
- It is resistant to rust.
- It is resistant to insects.
- It is resistant to fire.
- It is resistant to wind.
- It is resistant to snow.
- It is resistant to hail.
- It is resistant to rain.
- It is resistant to dirt.
- It is resistant to pollution.
- It is resistant to noise.
- It is resistant to vibration.
- It is resistant to shock.
- It is resistant to impact.
- It is resistant to abrasion.
- It is resistant to corrosion.
- It is resistant to oxidation.
- It is resistant to discoloration.
- It is resistant to fading.
- It is resistant to staining.
- It is resistant to mold.
- It is resistant to mildew.
- It is resistant to algae.
- It is resistant to bacteria.
- It is resistant to viruses.
- It is resistant to fungi.
- It is resistant to parasites.
- It is resistant to pests.
- It is resistant to animals.
- It is resistant to humans.
- It is resistant to all forms of life.

Galvanized Corrugated Roofing

Length	Price, Per Sheet	Price, Per 100 Sheets
10'	\$0.78	\$77.30
12'	\$0.92	\$92.00
14'	\$1.17	\$117.00
16'	\$1.32	\$132.00
18'	\$1.57	\$157.00
20'	\$1.72	\$172.00

See to Please Customers

THE BROWN FENCE & WIRE CO., CLEVELAND, OHIO

Jim Brown's Bargain Book—1936

Sears & Roebuck Roofing Catalogue - 1908

Factory Applied Sealant

Flat Pan

1-3/4"

12" 16" or 18" Coverage



Barn Roofing - Corrugated Metal

EXTRA HEAVY Pressed Corrugated Steel—U. S. STANDARD WEIGHTS

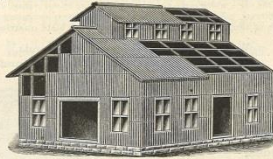
Made in HEAVY GRADE (U. S. Standard 28-Gauge) and EXTRA HEAVY GRADE (U. S. Standard 26-Gauge).

Corrugated Steel is an Excellent Material for roofing, ceiling, siding, awnings, etc. It is especially desirable for grain elevators, mills, barns and fireproof buildings. It requires only a hammer and a pair of tinners' snips to lay corrugated steel either on a roof or side of a building, and for this reason it is especially cheap and easy to lay. It is desirable where a large quantity is used. In putting on corrugated sheet steel the nails should always be driven through the crown or the highest point of the corrugation. Do not hammer the nails down hard enough to batter or flatten the sheet.

Extra Strong on Account of Corrugations. By making sheet steel in this corrugated form it gives the sheet great strength and rigidity. United States Standard 26-Gauge, which is known the country over as standard weight and thickness, and United States Standard 28-Gauge, which we describe as extra heavy and which is 20 per cent thicker and heavier than the standard 28-gauge. We recommend the Extra Heavy Grade, or 26-gauge, in preference to the standard weight (28-gauge), as it costs but a trifle more, costs no more to lay and gives nearly double the wear.

We Furnish Two Thicknesses: 1 1/4-inch corrugated steel roofing comes in sheets 25 feet long and 104 1/2 square feet to cover one hundred square feet. This does not include end laps. Allow from 4 to 6 inches for end laps, according to the pitch or slope of your roof. When used as siding, a 2-inch end lap is sufficient.

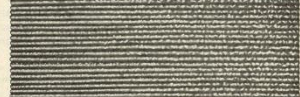
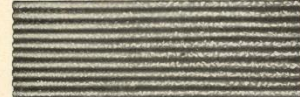
2 1/2-inch Corrugated Steel Roofing comes in sheets 25 feet long and 104 1/2 square feet to cover one hundred square feet. This does not include end laps. Allow from 4 to 6 inches for end laps, according to the pitch or slope of your roof. When used as siding, a 2-inch end lap is sufficient.



Above illustration shows a factory building partially covered with corrugated sheet steel. It will enter that the building is being covered with this material by nailing it direct to the ceiling and rafters. There is no shingling used on either the roof or side of the building. We recommend the use of turned roofing nail on all roof covered. The turned nail should be immediately under the steel roofing. It fits to the life of the roof.

Be sure to order 104 1/2 square feet of 1 1/4-inch corrugated steel roofing to cover one hundred square feet. This does not include end laps. End laps for corrugated roofing should be from 4 to 6 inches, according to the pitch or slope of your roof. When used as siding a 2-inch end lap is sufficient.

1 1/4-inch Corrugated Sheet Steel comes in sheets 25 feet long and 104 1/2 square feet to cover one hundred square feet. This does not include end laps. Allow from 4 to 6 inches for end laps, according to the pitch or slope of your roof. When used as siding, a 2-inch end lap is sufficient.



Above illustration shows a factory building partially covered with corrugated sheet steel. It will enter that the building is being covered with this material by nailing it direct to the ceiling and rafters. There is no shingling used on either the roof or side of the building. We recommend the use of turned roofing nail on all roof covered. The turned nail should be immediately under the steel roofing. It fits to the life of the roof.

PRICES OF 2 1/2-INCH CORRUGATED STEEL.

Catalog No.	Price, 5-ft. Sheet	Price, 10-ft. Sheet	Price, 15-ft. Sheet	Price, 20-ft. Sheet	Price, 25-ft. Sheet	Price, per 100 sq. ft.	Weight, per sq. ft.
48P3108	\$ 0.84	\$1.01	\$1.18	\$1.35	\$1.52	\$1.68	68 lbs.
28-Gauge, Painted							
48P3106	1.26	1.52	1.77	2.02	2.27	2.52	11.55
28-Gauge, Galvanized							
48P3124	1.00	1.20	1.40	1.60	1.80	2.00	9.20
26-Gauge, Painted							
48P3123	1.43	1.72	2.01	2.30	2.58	2.86	13.12
26-Gauge, Galvanized							

State Number and Length of Sheets on All Orders

PRICES OF 1 1/4-INCH CORRUGATED STEEL.

Catalog No.	Price, 5-ft. Sheet	Price, 10-ft. Sheet	Price, 15-ft. Sheet	Price, 20-ft. Sheet	Price, 25-ft. Sheet	Price, per 100 sq. ft.	Weight, per sq. ft.
48P3107	\$0.82	\$0.99	\$1.16	\$1.32	\$1.48	\$1.64	57.85
28-Gauge, Painted							
48P3108	1.22	1.47	1.72	1.96	2.20	2.44	11.68
28-Gauge, Galvanized							
48P3124	0.98	1.18	1.38	1.58	1.77	1.96	9.33
26-Gauge, Painted							
48P3123	1.38	1.66	1.94	2.21	2.48	2.76	13.24
26-Gauge, Galvanized							

Above prices do not include paint or nails.

Corrugated Ridge Roll to Fit 2 1/2-Inch Corrugated Steel Roofing.

No. 48P3272 28-Gauge, Painted. Price, per 5-foot length, .50c. No. 48P3270 28-Gauge, Galvanized. Price, per 5-foot length, .60c. Weight, about 2 1/2 pounds.

Corrugated Ridge Roll to Fit 1 1/4-Inch Corrugated Steel Roofing.

No. 48P3271 28-Gauge, Painted. Price, per 5-foot length, .85c. No. 48P3269 28-Gauge, Galvanized. Price, per 5-foot length, .65c. Weight, about 2 1/2 pounds.

TIN SHINGLES OR FLASHINGS

No. 48P3199 Made of a good grade of roofing tin and cut to exact sizes. Useful for repairing old roofs and making a tight joint around chimneys, etc. Painted on one side. Shipped from our CHICAGO store.

Size, 5x7 inches. Price, each, .50c. Per 100 (Shpg. wt., 15 lbs.), 1.50. Size, 7x10 inches. Price, each, .04. Per 100... (Shpg. wt., 30 lbs.), 3.50.

VALLEYS-IN ROLLS

No. 48P3198 Made of IC tin plate in a continuous strip, locked and soldered. Put up in rolls. Full lengths are 50 feet, but we can furnish any quantity. Painted on one side. Shipped from our CHICAGO store.

Width, Inches	Price, per 100 sq. ft.	Weight, per sq. ft.
14	1.54	29 lbs.
20	1.96	41 lbs.
28	2.22	50.78 lbs.

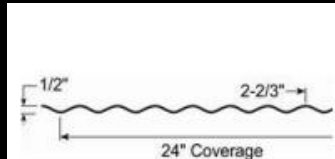
GALVANIZED STEEL VALLEY

Put up in rolls. Made in United States standard 28-gauge steel and extra heavy United States standard 26-gauge steel, 14 inches wide. Lock seam and soldered. For valleys and flashings. Shipped from our CHICAGO store.

Catalog No.	Thickness or Gauge	28-Foot Roll	50-Foot Roll
48P3197	28-gauge	\$2.85	\$7.63
48P3176	26-gauge	\$2.68	\$6.21

SEARS, ROEBUCK AND CO., CHICAGO, ILLINOIS.

Sears & Roebuck Roofing Catalogue - 1908



Barn Roofing - Asphalt

Gordon-VanTine Co. - Satisfaction Guaranteed or Money Back PAGE 85

"Jap-a-Top" SLATE SURFACED Roofing



JAP-A-TOP SLATE SURFACED ROLL ROOFING
 Jap-a-Top Slate Surfaced Roll Roofing is made of long fibre felt saturated with pure asphalt. Into this is imbedded a heavy layer of **Genuine Crushed Slate** of either natural dark red or sea green color. The result is a durable, fire resisting roofing that we guarantee for 15 years.

Fire Resisting
 The non-inflammable materials in the base covered with slate give maximum fire resistance. Sparks from a chimney may set fire to a wood shingled building at any time. With Jap-a-Top Slate Surfaced Roofing on your home you are protected from this danger. Meets fire underwriters requirements everywhere. Ideal for farm use.

Easy to Apply
 Comes in rolls of 108 square feet per roll. We furnish large headed galvanized roofing nails and sufficient cement for seams which must overlap to make it waterproof. Each roll covers 100 square feet. Much easier than shingles to apply. Weight full 85 pounds to the roll.


Colors Permanent
 You will find this roofing is a non-conductor of heat and cold, which means a fuel saving in winter and a cooler house in summer. The colors are permanent—will not fade—not affected by sun or rain. This roofing **contains no coal tar**. Samples sent free on request, but you are perfectly safe in buying direct from this page, as we will return your money and freight both ways if you are not thoroughly satisfied.

Note: All Jap-A-Top Roofings Carry Underwriters Label
 SA2059—Dark Red Weight per roll 85 pounds SA2065—Sea Green
 Price, per roll of 108 square feet, **\$1.95**
 Shipped from Davenport, Chicago, Cincinnati, Kansas City or Factory in New York

Gordon-Van Tine Co. Catalogue – c.1924



Genasco
 THE TRINIDAD-LAKE-ASPHALT
Ready Roofing
 makes all your buildings lastingly weatherproof. The natural oils of this asphalt give it life.
 The KANT-LEAK KLEET makes seams weathertight. Write for samples and the Good Roof Guide Book.
The Barber Asphalt Paving Company
 Largest producers in the world of asphalt and ready roofing
 Philadelphia
 New York San Francisco
 Chicago



ASPHALT ROOFING ON THE FARM

A Practical Handbook on How to Meet Wartime Housing Problems on the Farm with Serviceable ASPHALT Roofing Products

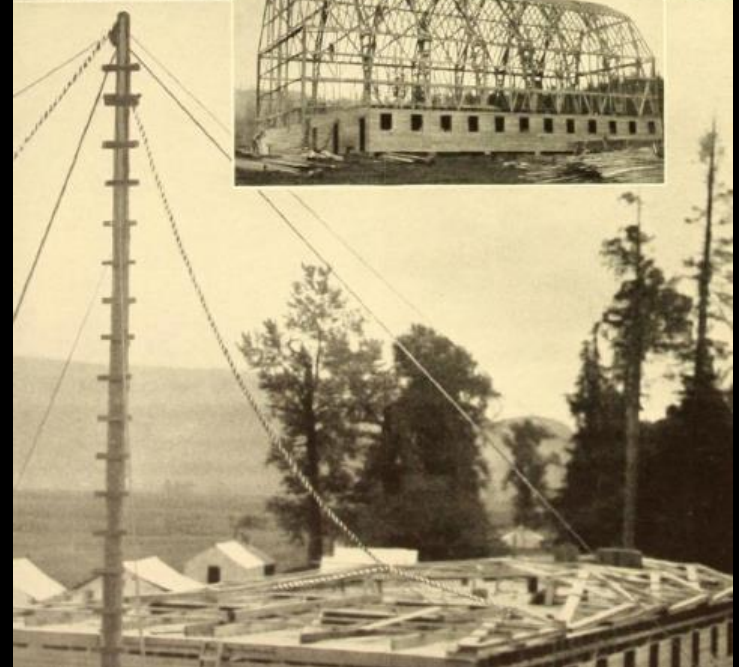
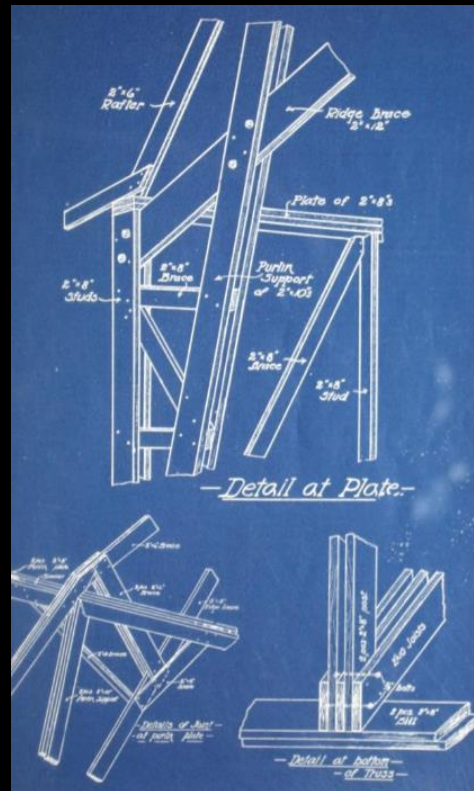
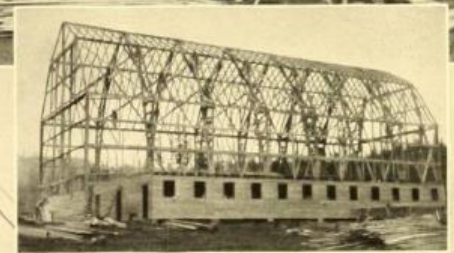
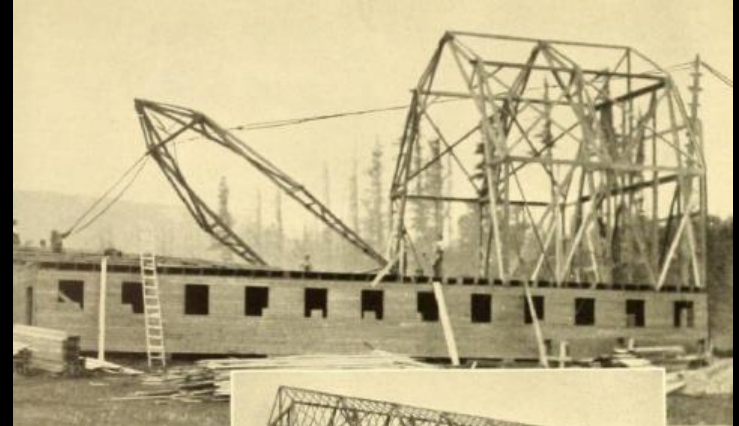
Asphalt Roofing on the Farm— c.1950



Barn

Framing / Truss System

- Log
- Heavy Timber Frame
- Pole Construction
- Plank Truss Frame
 - Braced Truss
 - Iowa Truss
 - Shawver Truss
- Concrete
- Clay Tile / Brick
- Plywood Rigid Frame



Barn Framing / Truss System

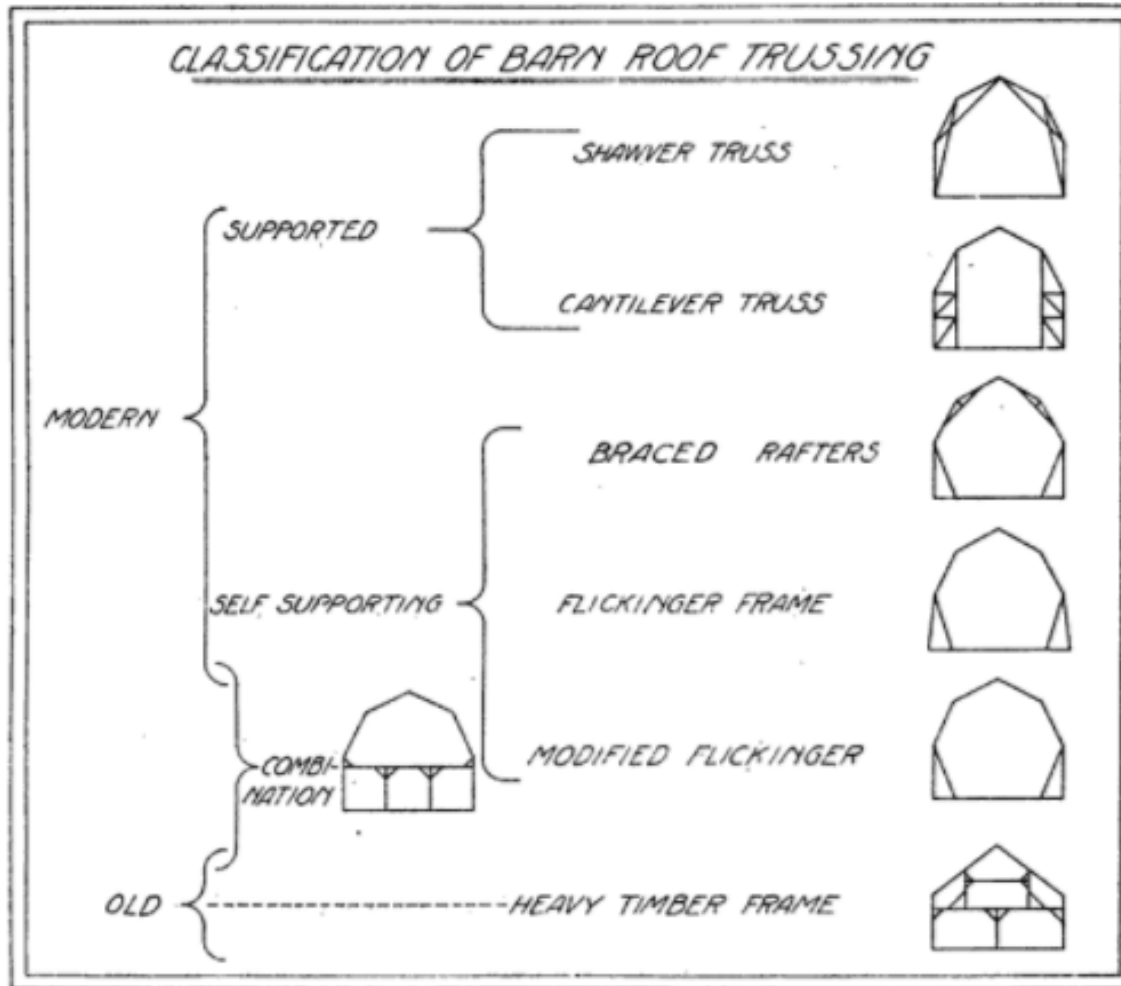


Fig. 1. Six types of barn roof trusses



American Society of
Agricultural Engineers

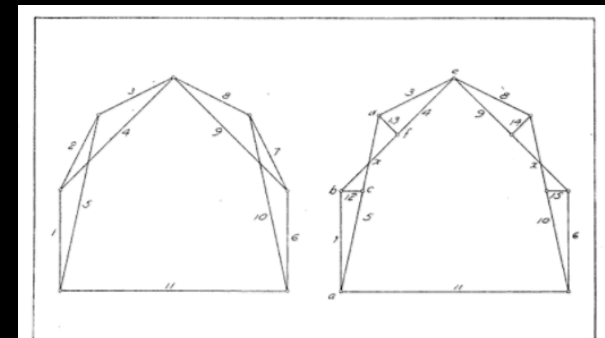


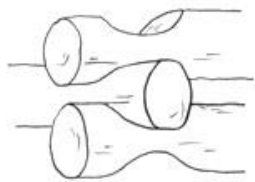
Fig. 2a

Fig. 2b

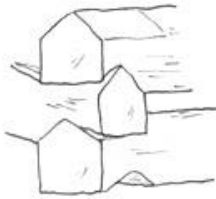
Two types of Shawver truss

Barn – Framing/ Truss System

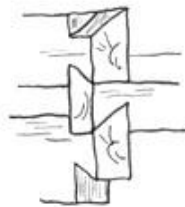
Log Framing



Saddle notch



V-notch



Half Dovetail notch



Diamond notch



Full Dovetail notch



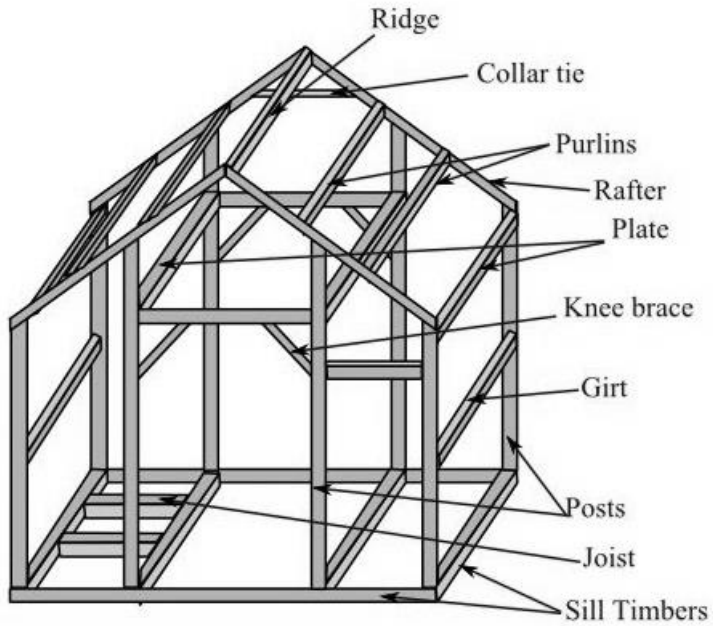
Square notch



Barn – Framing/ Truss System

Heavy Timber - Framing

Timber Framing Diagram



© 2011 MJ Logan



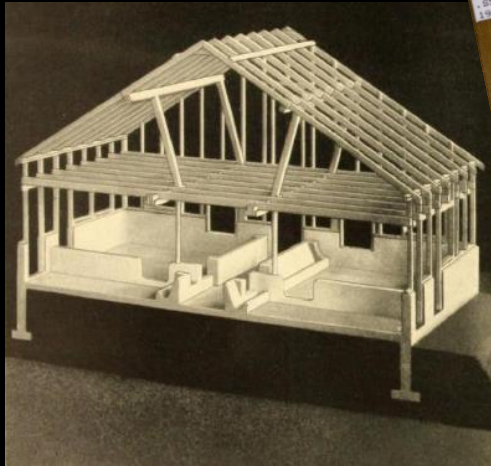
Barn – Framing/ Truss System

Pole Construction - Framing



Barn – Framing/ Truss System

Plank Framing - Gable Framing

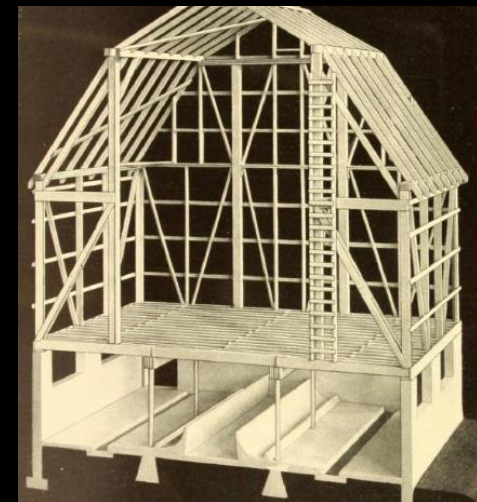
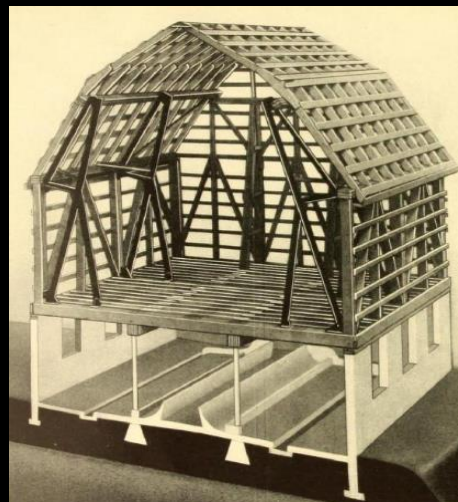
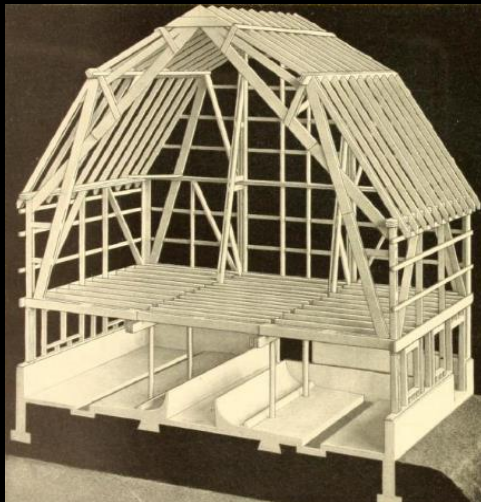


1904



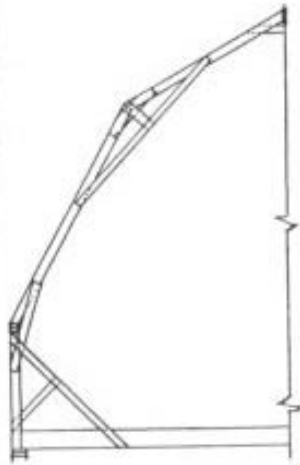
Barn – Framing/ Truss System

Plank Framing – Gambrel Framing

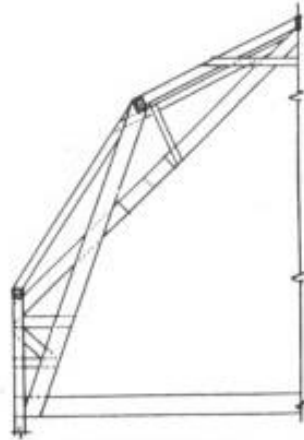


Barn – Framing/ Truss System

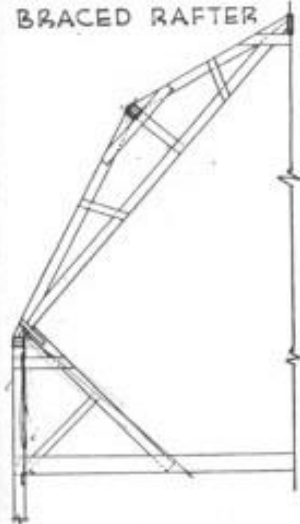
Plank Framing - Gambrel Framing



BRACED RAFTER



SHAWVER



IOWA



STRAP



METAL ANCHOR

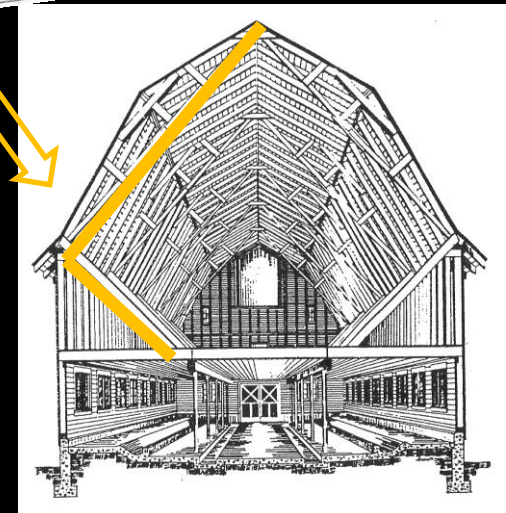
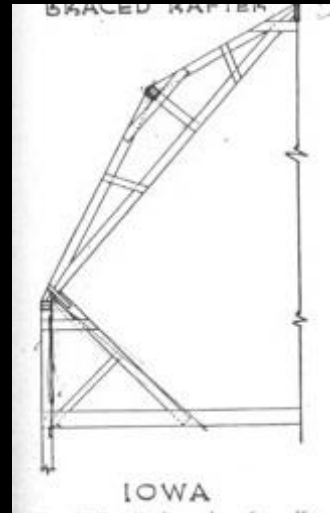
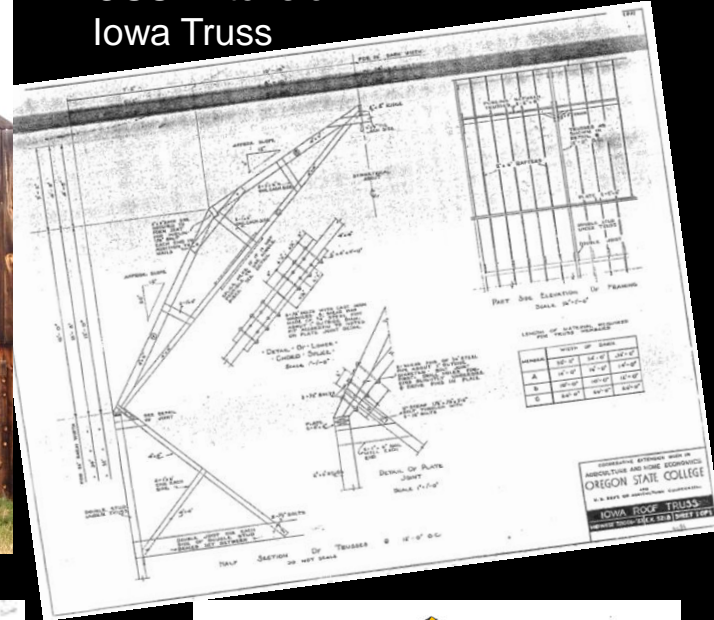


Barn – Framing/ Truss System

Iowa / Clyde Truss -Gambrel Framing



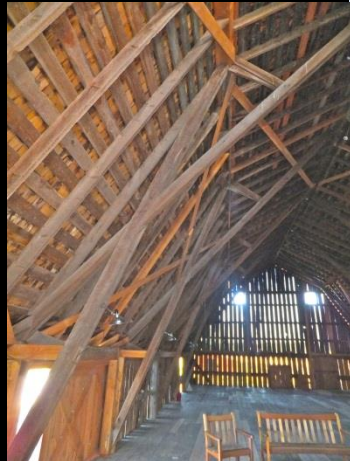
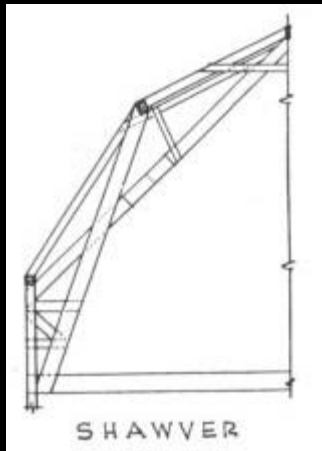
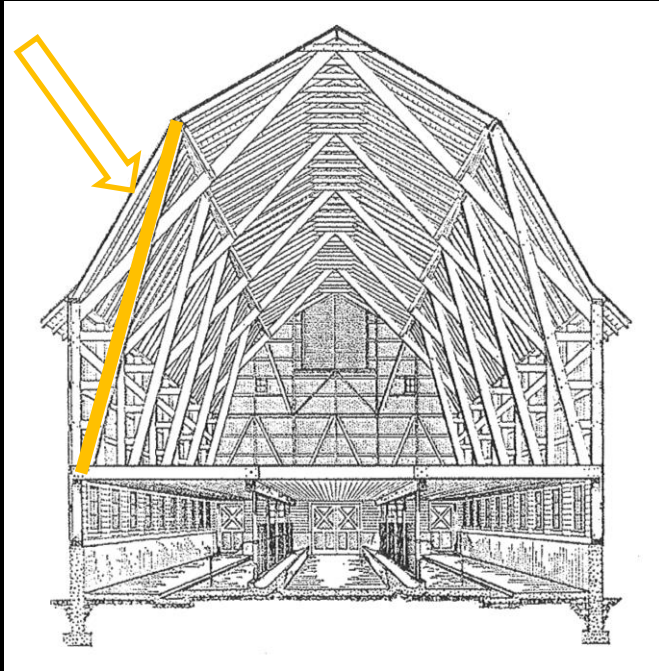
OSU Extension –
Iowa Truss



Truss developed around 1920

Barn – Framing/ Truss System

Shawver Truss - Gambrel Framing



Truss developed late 19th Century



Barn Barn – Framing/ Truss System

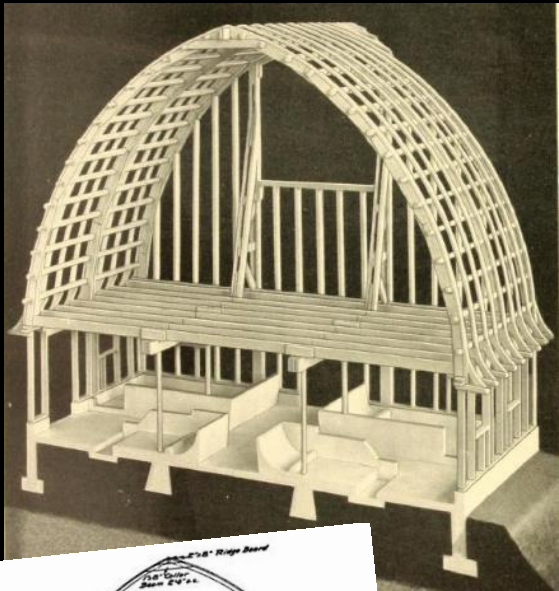
??? Truss - Gambrel Framing

Other truss systems

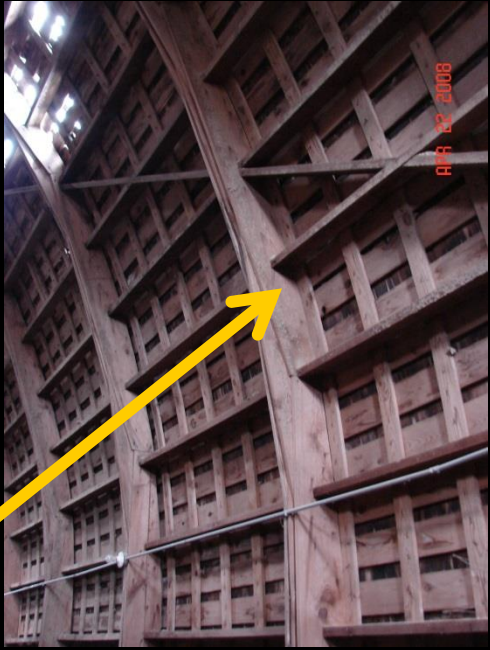


Barn – Framing/ Truss System

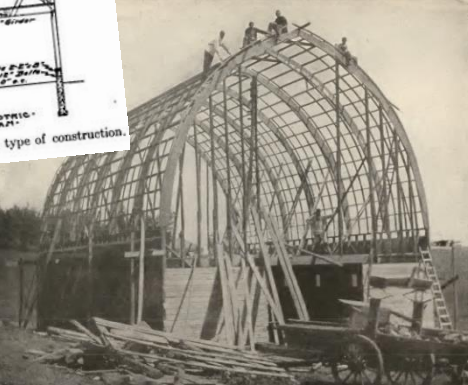
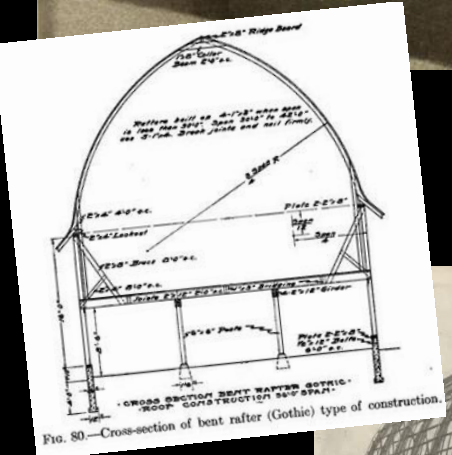
Plank Framing - Gothic Arch



Bent



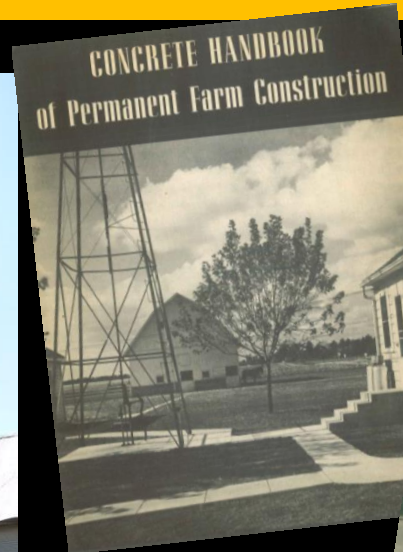
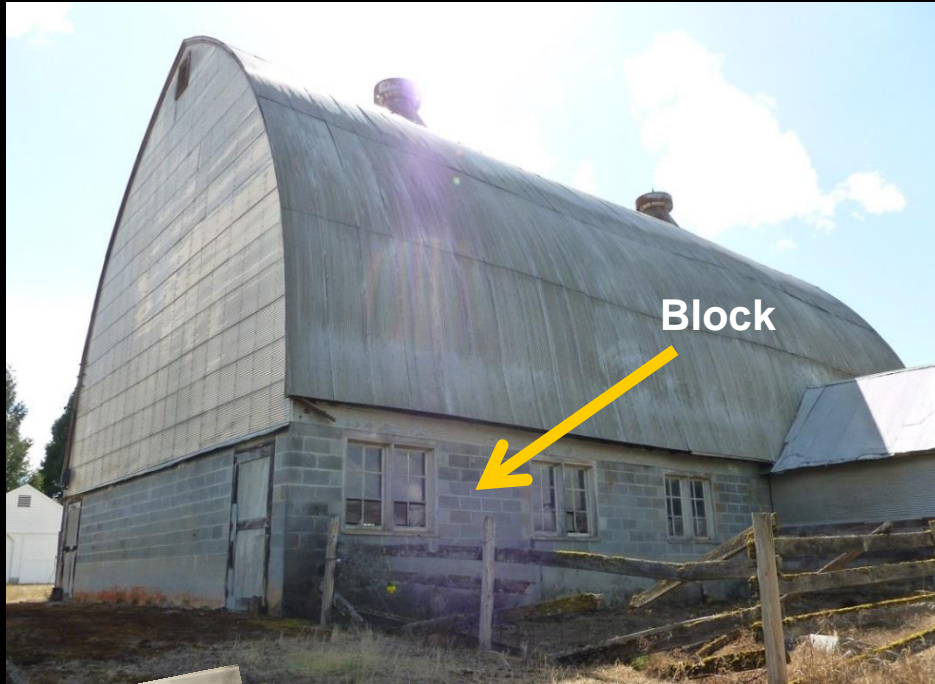
Plank



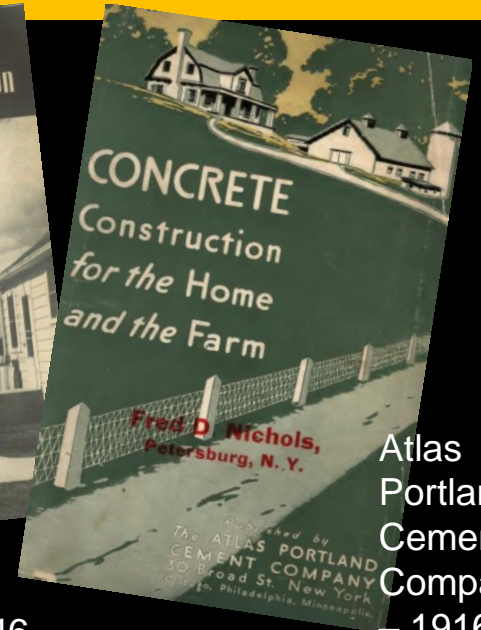
Truss



Barn – Framing/ Truss System – Concrete: Poured & Block



Portland Cement
Association – 1946



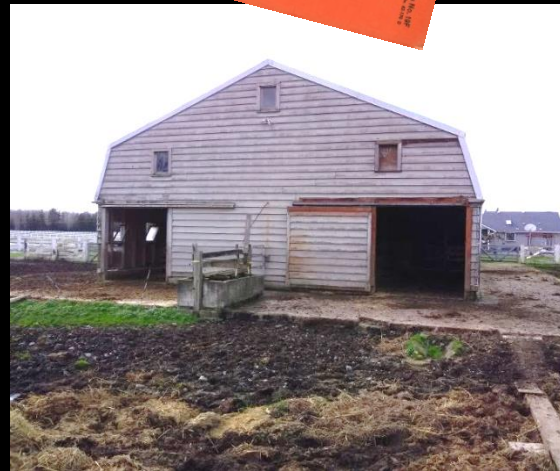
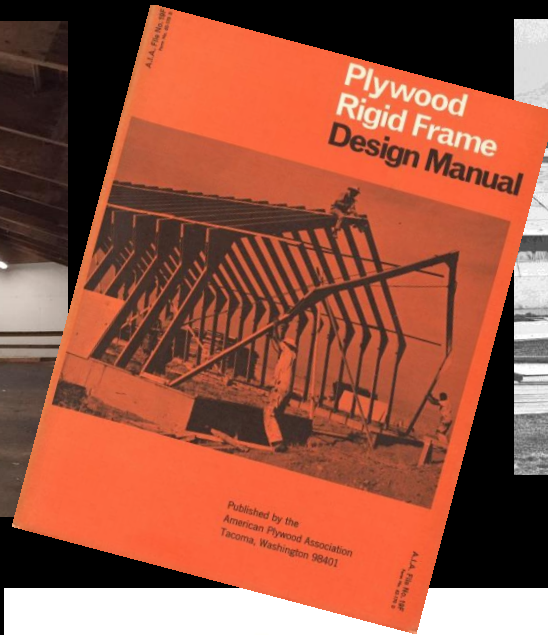
Atlas
Portland
Cement
Company
– 1916



Barn – Framing/ Truss System – Plywood Rigid Frame



Lewis County Fairgrounds



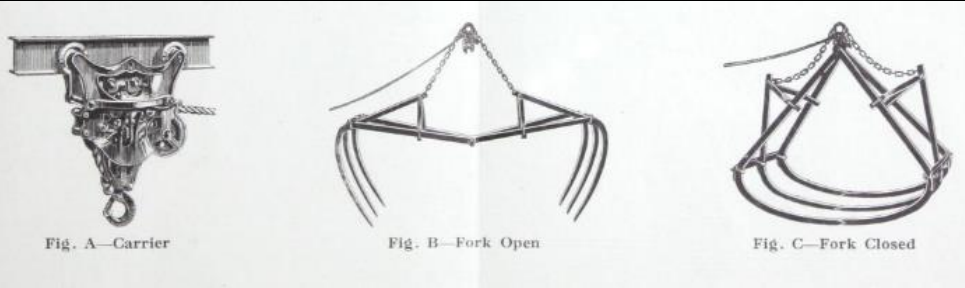
Buckley, WA, 1960



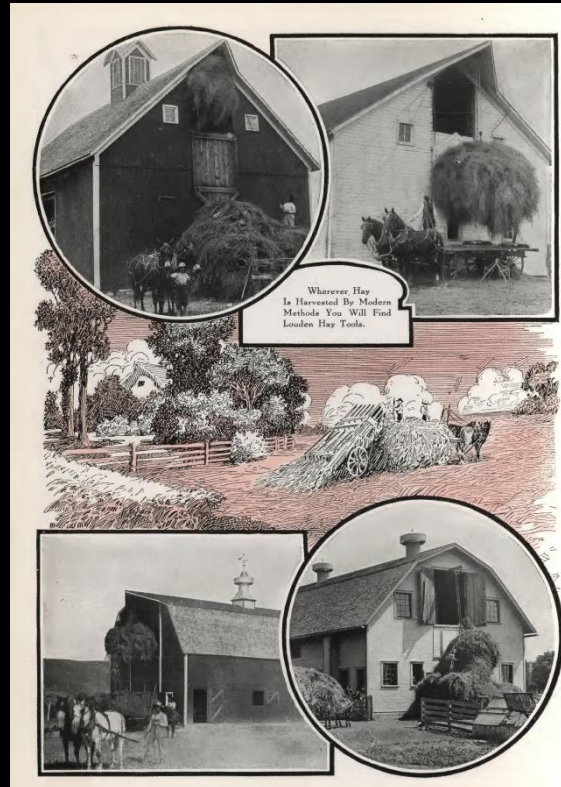
American Plywood Association – 1962-64

Barn - Details

Hay Hoods



Hay Fork



Barn - Details

Hay Hoods



Garfield County, WA



Linn County, OR



Graham, WA



Benton County, OR



Klickitat County, WA

Keizer,
OR



Barn - Details Cupolas & Ventilation



A ventilating system must be planned individually for the building into which it is to go.

Barn Ventilation

By L. KLIMA,
Barn Ventilation Expert

IN THE days of straw sheds when stock was not properly housed, very little attention was paid to pure air, and not much was known about its real food and life-giving value. It soon became apparent to those making a study of stock raising that these animals would be more productive when housed in warm buildings, and this is what has brought about the modern barn. It is true that

the warm room has increased the product, for example, the flow of milk from the dairy cow; but this warm, tight building has also brought about a condition that breeds disease; and the disease is proving to be a menace to live stock and mankind.

It has been proved that pure air is two-thirds of a cow's ration; in other words, for every pound of feed and water

combined that is consumed it requires the oxygen from two pounds of pure air to properly assimilate this feed. It is true that no farm stock buildings are air tight; but if the stock can get only one-half the required amount of pure air, it would have the same effect as if they were given only a part of the feed and water they naturally require to sustain life and make them productive.

Much has been written on the subject of ventilation for farm



Weston, OR
1916



MAJESTIC VENTILATORS

For Barns and Stables
Majestic Ventilators are scientifically and constructed. They have been for the best and most approved models rket.

Each ventilator required is governed number of cattle in the building. If more than twenty cattle under one roof I have two or more ventilators of the

Each ventilator has a continuous draft vent to draw out the foul air and replace it with fresh air, without causing a draft.

Each of these ventilators will go a long way making any outbuilding attractive, healthy and comfortable. The service consists in keeping the building ventilated under all weather conditions. Incidentally necessary in order to get the best from stock of any kind. Animals raised in a building continuously supplied with fresh air. Considering the low

price and the high quality of our ventilators, no farmer can afford to be without one.

Extra heavy 22, 24 and 26-gauge galvanized steel is used in the manufacture of our Majestic Ventilators, according to size. Nothing thinner than 26-gauge galvanized steel is permitted. This is much thicker stock than is generally used. Each ventilator is equipped with four stay rods which hold it securely in place on the roof. A wire screen is provided to keep the birds out. When properly secured to the roof, our ventilators, owing to their weight and scientific attachment, will resist unusually severe storms.

Price Ventilators for Small Buildings.

Price of Prince Ventilators for Small Buildings.

On the section of roof illustrated we show our Special Direct Draft King Style Roofing, which comes in rolls and looks exactly like painted or stained wooden shingles. Send about this wonderful roofing on colored insert between pages 8 and 13.

Capacity	Height	Weight	Price
1000	10	100	\$12.00
1500	12	150	\$15.00
2000	14	200	\$18.00
2500	16	250	\$21.00
3000	18	300	\$24.00
3500	20	350	\$27.00
4000	22	400	\$30.00
4500	24	450	\$33.00
5000	26	500	\$36.00

Capacity	Height	Weight	Price
100	4	10	\$1.50
150	5	15	\$2.00
200	6	20	\$2.50
250	7	25	\$3.00
300	8	30	\$3.50
350	9	35	\$4.00
400	10	40	\$4.50
450	11	45	\$5.00
500	12	50	\$5.50

Lightening rod connections, consisting of heavy copper wire, properly fastened inside of ventilation.

SEARS, ROEBUCK AND CO., CHICAGO, ILLINOIS.

Barn - Details

Cupolas & Ventilators



Whitman Co. - The Smith
Place - 1935



Snohomish Co. - Grimm-
Jensen Farm - 1932



Adams Co. - Krause Barn -
1901



Pierce Co. - c1923



Spokane Co. -
Hyslop Farm - 1926



Pend Oreille Co. -
LaPorte Barn - 1901

Barn - Details Equipment



Cook Family Farm – 1927



Shady Nook Farm – 1920



Smith Place – 1935



Grimm-Jensen Farm – 1932



Schindler Farm – 1909



Barn - Details Decoration



Heath Farm – c.1920



Bolick Farm – 1895



Ebby Road Farm – 1923



Brown Farm, Olympia – c. 1905

Barn - Details Decoration



Cochran-Rice Farm, Cottage Grove, OR



Barn, Oakland, OR



Polson Farm, Waterville, WA – c. 1915



Gribble Barn, Canby, OR

Associated Farm Buildings

- Bunk Houses
- Fruit Dryers
- Granaries
- Hop Dryers
- Machine Shed
- Milk Houses
- Poultry Houses
- Root Cellars
- Silos
- Smoke Houses
- Water Towers



Associated Farm Buildings



Woodshed



Outhouse



Granary



Farmhouse

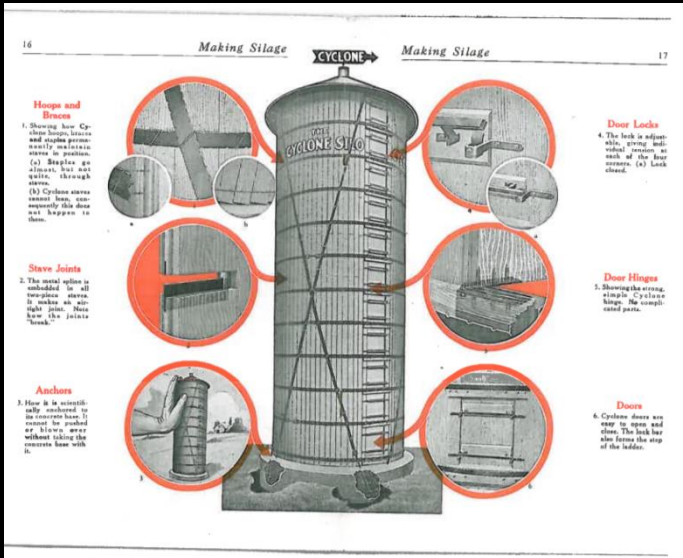
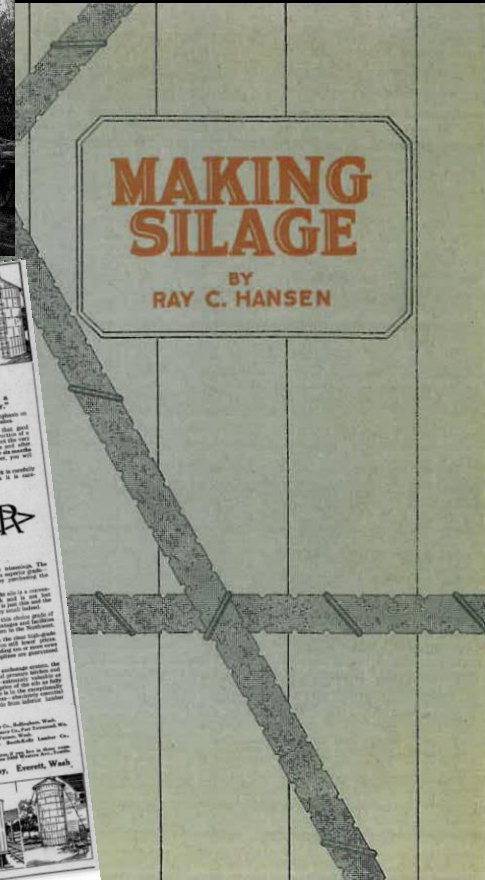


Homestead Cabin



Root Cellar

Silos - Typology



Silos - Typology



Wooden Octagonal Silo

Asotin Co – c.1895



Vertical Wood Stave Silo

Clark Co. – c.1900



King Silo

Klickitat Co. – 1920

Silos - Typology



Brick Silo
Spokane Co. – 1919



Concrete Stave Silo
Pierce Co. – c.1920



Glazed Tile Silo
Clark Co. - 1920

Silos - Typology



Steel Paneled Silo

Pierce Co. – c.1935



Poured Concrete Silo

Grays Harbor Co. – c.1935



Harvestore Silos

Adams County - c. 1948

The Washington State

Department of Archaeology & Historic Preservation



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