Anatomy of a Barn

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

+ Silos

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Barn Elements

Wing vs. Ell vs. Lean-to

Barn Plan View
Barn

Forms and Types

Barn Roof Types

- Shed
- Gable
- Gambrel
- Gothic
- Monitor
- Half Monitor
- Combination
- Hip
Barn classification can be based on:

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

DAHP method
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
English Gambrel

Thurston County, WA

Ellensburg, WA

Enterprise, OR

Donald, OR

Lynden, WA
Barn - Forms & Types

**Dutch Gambrel** *(note flare at eave line)*

Fairfield, WA

Scappose, OR

Elgin, OR

Willamette Valley, OR

Grays Harbor, WA

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

**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

Pousbo, 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
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
Gordon-Van Tine Co. Catalogue – c.1924

Jim Brown’s Bargain Book – 1936

Sears & Roebuck Paint – 1932
Barn Plans

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

THE BOOK OF BARNs
HONOR-BILT-ALREADY CUT

Fenner Barn No. 422

Barn No. 422, the standard size of which is 20 x 20, is a good sized barn for general use. The severe, massive and solid-looking cubic feel of space in the already large loft, and no cells make an excellent external appearance. The driveway goes clear through the barn, in the center. To the left of the driveway are stalls and passageways for hay stacks, 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 accepted and standard designs that they are recognized by the leaders in the industry. Should the interior arrangement need changing to meet your needs, we can change it, not only in this, but in any of our barns. We will put any design of the fence, and if you own a barn to any special design, we will put you to get our prices, to your own station, all cut to fit and ready to put together readily and quickly.

Fenner Manufacturing Co.,
Portland, OR - 1921

Gordon Van Tine - 1915

Sears & Roebuck - 1919
Barn Plans Extension Service

WSU Extension – 1934

WSU Extension – 1953

OSU Extension – 1981

Smith-Lever Act of 1914
Barn Plans
Lumber Yard / Plan Service

Radford's Practical
Barns Plans – 1907

Weyerhaeuser - 1946

Professionally Planned Farm Buildings
WITH COMPLETE BLUEPRINTS AND MATERIAL LISTS

Weyerhaeuser Sales Company

Out Buildings
and Stock Sheds

PRACTICAL IDEAS
FOR THE HOME & FARM
WITH Weatherply

1881

1952
Barn Roofing

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

Roofing – Wood Shingle / Shake
Barn

Roofing – Standing Seam

Sears & Roebuck Roofing Catalogue - 1939

Sears & Roebuck Roofing Catalogue - 1908

Jim Brown’s Bargain Book– 1936
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 suitable for grain elevators, silos, barns and insulated buildings.

Extra Strong on Account of Corrugations:

We Furnish Two Thicknesses:

1. Extra Heavy Gauge, no. 30-gauge, for the heaviest and most rigid roof structures. This gauge fulfills its purpose without any exception. Allowing more than a 1/2 ounce of wire and having a total area of 1/4 of an inch of wire, it is a rigid, strong and lasting material for roofing purposes.

2. Heavy Gauge, no. 36-gauge, for lighter roofs and structures. It is suitable for light-duty use and provides adequate protection against weather elements.

Prices of 11/2-Inch Corrugated Steel

TIN SHINGLES OR FLASHINGS

GALVANIZED STEEL VALLEY

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

SEARS, ROEBUCK AND CO., CHICAGO, ILLINOIS.

Sears & Roebuck Roofing Catalogue - 1908
Barn

Roofing - Asphalt

Gordon-Van Tine Co. Catalogue – c.1924

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

Fig 2a
Fig. 2b
Two types of Shawver truss

ASAE Annual Meeting – Dec 1918, J.L. Strahan
Barn – Framing/ Truss System

Log Framing
Barn – Framing/Truss System

Heavy Timber - Framing

Timber Framing Diagram

Ridge
Collar tie
Purlins
Rafter
Plate
Knee brace
Girt
Posts
Joist
Sill Timbers

© 2011 MJ Logan
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
Barn – Framing/ Truss System

Braced Truss - Gambrel Framing

OSU Extension – Braced Truss
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
Barn – Framing/Truss System

– Concrete: Poured & Block

Portland Cement Association – 1946

Atlas Portland Cement Company – 1916

Poured

Block
Barn – Framing/ Truss System

– Plywood Rigid Frame

Lewis County Fairgrounds

Plywood Gussets

Buckley, WA, 1960

American Plywood Association – 1962-64
Barn - Details

Hay Hoods

Hay Fork
Barn - Details

Cupolas & Ventilation

Weston, OR 1916

Sears & Roebuck Roofing Catalogue - 1908
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

Grimm-Jensen Farm – 1932

Shady Nook Farm – 1920

Schindler Farm – 1909

Smith Place – 1935
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
- 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

[Images of silos and related materials]
Silos - Typology

King Silo *(Note horizontal boards)*

Franklin Hiram King
– Prof. University of Wisconsin

The Construction of Silos
– 1891

Klickitat Co. – 1900
Silos - Typology
Vertical Wood Stave Silo

Clark Co. – c.1905

King Co. – c.1910

Chehalis Bee Nugget - January 25, 1918

The Ranch - January 15, 1914

The Washington Farmer - June 15, 1914
Silos - Typology

Timber Crib - Tung-Lok Silo

Asotin Co – c.1915

Okanogan Co – c.1915

Pullman Herald - June 18, 1920
Silos - Typology

Glazed Tile Silo

Hollow Tile Farm Buildings
- 1918

Clark Co. - 1920

Preston-Lansing Vitrified Tile Silos & Grain Bins - 1919
Silos - Typology

Brick Silo

Spokane Co. – 1919

Cowlitz Co. – c.1920

Lewis Co. – c.1920

Farm Homes of Brick - 1925
Silos - Typology
Concrete Silo (monolithic, block)

Grays Harbor Co. – c.1935

Lincoln Co. – c.1922

Concrete on the Dairy Farm - 1921

The Ranch - 1911

Manual of Permanent Farm Construction - 1920
Silos - Typology

Concrete Silo (Ribstone / Stave Silo)

Jefferson Co. – c.1930

Pierce Co. – c.1920
Silos - Typology

Steel Paneled (Harvestore) Silo

Adams County - c. 1948

Advertisement - 1956

Pierce Co. – c. 1935

Advertisement - 1948

Advertisement - 1930
The Washington State
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