

Barn History

The Brunn Barn located on the Woodstock Fairgrounds was originally constructed in 1822. It is representative of the typical barn construction, layout and materials used at that time in New England. Barns were and remain a necessary part of farming to house livestock, feed and equipment.

Materials for the barn construction came from local forests. Timber framing with vertical sideboards was the common style. Harvested trees were hewn or sawn to form the beams required for the post and beam framework of the barn. These heavy, squared off beams were then fitted and joined by mortise and tenon. A simple, yet strong method of tying beams together. The joints were secured by the wooden pegs you can see as you look around the barn. This construction method resulted in a barn that could bear heavy weight while maximizing interior space.



Mortise and Tenon Joint

A specific type of post which was sometimes used in timber frame structures is referred to as “Gunstock” or “Musket Stock” due to its resemblance in shape to an inverted rifle stock. A “Gunstock” post has an increased size/thickness at the top to provide added bearing surface. This provided extra strength and support for the intersecting joinery. Although not commonly found any longer, you can see this type of post was used on the outside walls of the Brunn Barn.



Gunstock post/joinery in the Brunn Barn

Another unique construction feature of the original Brunn Barn can be seen near the stairs at the West side of the barn. The upper horizontal beams on the sides of the barn were grooved to accept the tops of the vertical sidewall boards. This provided a solid fit for the tops of the boards while providing protection against water penetration and eventual wood rot.



Beam is grooved to accept tops of sidewall boards



Both the grooved fit of the boards and the Gunstock Post can be seen above.

A key design feature used on barns in New England (as compared to barns in England from where many of our early farmers came) was the use of a sliding entry/exit door on the gable ends with a center corridor running the length of the barn. This allowed farmers to access and service all areas of the barn. This configuration also lends itself to easy expansion as you will see on many barns throughout New England.

Another key feature of barns built in the 1800's was the use of a cupola. You can see this structure on the roof of the Brunn Barn. It provides ventilation for the barn. Prior to that time, barns were built to be weather tight. Unfortunately, and particularly in the winter when the animals would spend most of their time in the barn, condensation, heat, and gases from the inside of the barn would remain trapped due to the lack of fresh air from outside the barn. This caused moisture to collect under the cold roof boards from which it would drip on hay and anything else in the barn. This created an atmosphere in the barn of musty air and the potential for mold and wood rot. The cupola solved this. It provided the ventilation necessary to keep the barn air fresh and condensation to a minimum.