

Our old icehouse — one of our most valuable buildings

By Marjorie Burris

When we bought our old homestead in the Bradshaw Mountains in Central Arizona, it had several outbuildings scattered about the property, all badly in need of repairs. We tore down most of the dilapidated old buildings, but when we came to the little log structure built about 50 feet behind and to one side of our old log house, we had to pause. Although the door had been torn off its hinges, the floor was rotted out, the bottom logs were rotting, and all the chinking had fallen out, this old building had character. But why was it built so near the house, and why was it built like a small room instead of a garage?

City people that we were, we finally figured out it must have been used for food storage in some manner, and when we began poking about in the rubble of the rotted floor, we found a pair of big, metal, old-fashioned ice tongs. Our questions were answered. This was an old icehouse.

Later, when we became acquainted with the family who had bought the property from the original homesteaders, we learned how the little house had been used. And although we don't use the icehouse exactly the way those early owners did, it is as valuable to us today as it was to those who lived here a hundred years ago.

Built of hand-hewn logs 10 inches thick, the icehouse is roughly 8 feet by 10 feet on the outside. The front of the building is 7½ feet tall; the back of the

house is 4½ feet tall making a steeply sloped roof from front to back. The original roof had been made of hand-made wood shakes, but some later owner had replaced the shakes with a corrugated steel roof. The inside of the house was lined with sheet metal on the ceiling and walls when we bought the property. Because the logs were so



The author's icehouse showing the outside and the inside doors as well as the S-hook holding ice tongs on the outside door

thick, there was nothing used as insulation in the space between the wooden and metal walls, but the space between the sheet metal ceiling and the steel roof was packed tightly with hundreds of dried corn shucks.

The floor joists, as well as the bottom logs of the walls, were laid directly on the ground. There was no foundation. The logs and the floor were made of ponderosa pine. The choice of building material, the way the house was built, and the way it had been used were all contributors to the excessive rotting of the floor and lower logs.

Even so, the old building stands firmly in place after a hundred years. About 10 years ago, we noticed that the 90 foot tall pine tree about 25 feet behind the icehouse was dying and leaning toward the building. We decided we had better cut down the tree before the wind blew it over onto the building. Although the logger cut a deep notch in the direction he wanted the tree to fall, the tree twisted at the last moment and fell directly over the icehouse.

We thought that was the end of the building, but it bounced up about a foot into the air and settled down snug

against the ground exactly as it had been before. The only damage we could see then, and can find even today after all those years, was a slight dent in the roof. Even the door fit as tightly as before. We had to laugh. So much for foundations, decay resistant building materials, and careful attention to repairs.

We have not replaced the bottom logs of the walls, but when we replaced the floor we put the joists in exactly as they had been originally. Then we put sheet metal over the flooring,

making the house fully lined with metal, and rodent proof. There was no drain in the bottom of the original floor. We were told that the flooring had been laid down with space between the boards so that the water from the melting ice simply seeped through the cracks. We don't put ice directly on the floor, so we had no cause to worry about water standing underneath the building.

When we tore off the old broken door, we replaced it with a door made of milled boards instead of half-round logs like they used in the original door. We knew this cut down on the

insulating quality of the door, so we made a screen door-like frame to fit on the inside of the wooden door, and lined that with cardboard for more insulation. This makes two doors to open when we want to go inside the icehouse, but it is very effective for insulation.

How the old timers used the icehouse

We know that from the time the icehouse was built sometime in the early 1930s, the people who lived here did indeed cut ice out of the pond and stack it on the floor of the icehouse. They told us they raked up bags of pine needles in the dry months of the fall before it started to snow, then spread the dry needles over the ice for insulation which kept the ice from melting quickly. Depending on the weather, they could keep the inside of the house cool enough to safely store fresh meat as well as milk products and vegetables for some time well into the first of the summer months.

The ice couldn't have been very thick slabs, however, because our pond does not freeze more than four or five inches deep even in our coldest weather. It rarely gets down to zero degrees Fahrenheit here, and when it does dip that low it doesn't stay there long enough to make thick ice.

In the summer months after the ice had completely melted, the house still stayed cool enough to keep vegetables and apples fresh. Our days get quite warm here in the summertime, maybe up to 85 or 90 degrees, but nights rarely stay warm. Most summer nights we need a blanket or two to keep comfortable. The old-timers would open the icehouse door on the cooler summer nights and let it air out, letting out the warmer air and letting in the cool night air to keep the building at a relatively cool temperature of about 50 to 60 degrees.

In addition to the icehouse, those early homesteaders had another clever way to keep foods cool. Outside the

north facing kitchen window they built a frame of a box set up on stilts the height of the window and up tight against the window. The box had a bottom but no sides or top. They covered the sides and top with screen wire, then with burlap, and set a bucket of water with a small hole in the bottom over the top of the box so that water could drip constantly onto the burlap, keeping it wet all the time. The evaporating water kept the food in the box several degrees cooler than the outside air. You could reach through the window to set your food inside the box. I used their box a few summers before we lived fulltime on the homestead when we would come up for short periods of time to work on the place. We had to replace the screen wire with stronger wire. The raccoons found out they could break through screen wire and raid the box.

The icehouse today

We do not cut ice from the pond. Instead we collect snow in five-gallon buckets and set them on the floor. Snow is easier to collect than ice is to cut and haul. And we have much more snow than we have ice. When we know it is going to snow, we will often set the buckets out in an open place and let Mother Nature fill them at least partly full. Then we can dip snow into the buckets to fill them the rest of the way. After the snow melts, the water will stay cool for a long time. If I want the snow to melt more slowly, I will set the buckets inside cardboard boxes on the floor of the house. When the water gets too warm we can empty it outside where it will not do more damage to the floor and walls of the icehouse.

Also, when my big chest freezer that I had when we lived in the city konked out, we took out the motor and moved the freezer inside the icehouse. The combination of the insulation in the freezer cabinet and the insulation of the icehouse makes for an effective cooler even in the hottest of months. I keep a high-low thermometer in the

freezer and can tell at a glance exactly how hot or cold it has been. It is always cool enough to keep vegetables and fruits for long periods of time. If the weather turns extremely hot, I can buy a block of ice and keep it in a bucket on the floor to aid in cooling the icehouse.

In the fall when we pick bushels of apples in our orchard, we will pour the freezer full of apples and have fresh apples almost until next harvest time. They aren't as crisp as when they were first picked, but they are still very good. I always sort out a few of the biggest and nicest apples. I wrap each one individually in newspaper and store them in an apple box with holes for ventilation in the sides of the box, then set the box on a shelf in the icehouse. At Christmas time we can make lovely gifts with our home grown apples. Finally, we make cider from the last of the apples before they spoil. By then, the apples have mellowed enough that the cider is sweet as well as tangy.

When we butchered a beef, we aged it in the icehouse. We didn't butcher until sometime late in November when cold weather had set in and after the first snow. By keeping buckets of snow setting under the sides of beef, we maintained a rather constant temperature of between 34 and 38 degrees—just right for aging meat. Husband put up a heavy rod made of two inch metal water pipe just under the ceiling. He made S hooks out of re-bar with a sharp point on one end of the hooks. We stuck the sharp point through a side of beef and hung the hook on the pipe. But we did not try to keep the meat all winter like the early homesteaders did. After aging for about two weeks, we cut up the meat and wrapped it in freezer wrap and took it to our son's house in Phoenix for him to keep in his freezer. The meat was delicious.

Potatoes, carrots, cabbage, and in fact almost all my garden vegetables, keep well in the icehouse. However, I don't put winter squash there because

it likes a warmer temperature than I keep in the outbuilding. I do ripen green tomatoes in the icehouse though. I wrap the tomatoes like I do my choice apples and store them the same way. I rotate the tomatoes fairly often and watch them rather closely. They ripen and taste much better than store-bought greenhouse tomatoes, but no tomato tastes as good as it does right off the vine. One year, after a bumper crop of tomatoes, we had the last of our stored tomatoes for Christmas dinner. Right now, I have three big net bags full of lemons picked off our son's tree and hung in the icehouse. They will keep well for several months. I'd like for them to keep until lemonade time, but don't know if they will or not. I may have to squeeze them and freeze the juice later this spring.

Building an icehouse

We have a friend who recently built an icehouse out of modern day materials. He used milled lumber and made a little shed-like building about the same size as our icehouse, but the roof isn't as sloping. He put the icehouse up on a concrete block foundation. He lined that building, ceiling, and floor with slab styrofoam insulation, then covered the styrofoam with more lumber. His icehouse is essentially an envelope stuffed with styrofoam.

Without ice or snow stored in it, it stays at a fairly constant temperature of about 50 degrees all the time. He keeps mostly garden produce in his icehouse, but he told us when he wanted to make the building cold enough to keep meat or milk products he would buy some blocks of ice and store them in picnic chests on the floor. He would leave the lids of the chests standing open. He said the ice melted very slowly and the whole building would become as cold as a walk-in refrigerator. Modern day materials—same principle. Better built, but not nearly as charming. Δ

A modern-day icehouse

We got letters from several readers about icehouses, and among the best was one from H.L. Baggett of Tennessee Ridge, TN. His drawing below is not meant to be used as a blueprint, but as a suggestion for building a more modern icehouse than the one Marjorie Burris found on her property.

Baggett's modern icehouse is 10' X 10' built on a 16' X 16' gravel bed filled a bit higher than the surrounding ground. The icehouse itself should be on a small rise on the ground, on the north side of a barn or house tall enough to cast shade during the day, especially from 11 a.m. to sunset. Note the 2 feet of sawdust insulation on the sides of the inner room and the 3 feet above the ceiling. The drawing depicts a block wall outer wall at the left, or you can use the old-fashioned wood siding shown at the right. Only one door is shown but obviously you'd have an inner and outer door (tightly sealed against the outside) just like Marjorie's icehouse. Also note the roof hatch (sealed against the rain) for putting in the sawdust. Rebar and cement reinforces the block, and steel ties bind the outer wall to the inner wall. The gravel floor and the gravel under the sawdust walls are, of course, for drainage, because you'll have an ice company deliver about 3 tons of ice in 100-200 pound blocks. Separate the blocks with 6 inches of sawdust. Lots of variations you can do to this structure, but this is the basic modern icehouse. Δ

