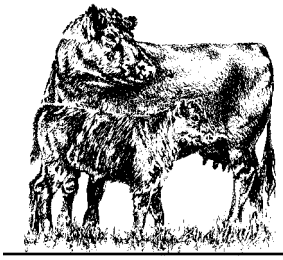

Western Beef Resource Committee *Fourth Edition*

Cattle Producer's Handbook

Reproduction Section 450

Designing a Cattle Obstetric Stall

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Every ranch needs to design a functional calving assistance area to increase profits by decreasing calf death losses, animal injuries, and increase subsequent conception rates. Proper and timely assisted births can increase cow and calf vitality, which in turn positively affects growth and reproduction resulting in higher dollar returns to the ranch. As with any other job it is much less difficult to assist in the delivery of a calf if proper equipment and facilities are available.

Proper facilities can affect the motivation to bring the cow or heifer in the barn and allow assisting birth without undue stress on the animal or the producer. The animal should move to the area easily, be constrained without fright, and then helped with the birthing process. With inadequate facilities the cattle producer often delays assistance and has difficulty in corralling and restraining the animal. Frequently, this results in problems with the "mothering up" or bonding process after birth is completed. A calm, unhurried manner promotes successful results.

The facilities should be designed for easy animal movement and located in an area familiar to the heifers. The OB stall can be outside although inside a barn is often a more pleasant environment on a cold snowy night. Feeding heifers in the general area will allow them to be familiar with the surroundings and move into the area with ease.

A concrete pad is helpful. After several births, the area tends to become muddy and slick. A pad of rough concrete provides sure footing, as well as a drier, cleaner environment. The pad can be swept clean or a floor drain provided to remove liquid and placenta. A floodlight above and behind the animal is also helpful. The obvious benefit is to be able to see what is needed. A light may not heat an area, however, it does "feel" warmer than working in the dark.

Hinged, swing away, or interchangeable panels (gates) allow flexibility in design and aid in cattle movement. These are attached on either side of the head catch to (1) facilitate moving the heifer into the catch and (2) aid in holding the heifer quiet as assistance is given. Once assistance is started the gates need to swing away from the animal so that it might lay down in the birth process. These panels can form a small pen to hold heifer and calf after birth.

The natural actions of cattle after an unassisted birth is to stand, pivot 180˚, and begin to mother (lick, etc.) the calf. This action not only dries the calf but stimulates it to move, breath, and get up and bond with the mother. To simulate this action the heifer should be allowed to back out of the head catch and pivot with her head down. All she can smell at this point is the calf. Bonding (mothering) will generally occur quickly. If an animal is moved to a new location before bonding has taken place, this process is much slower. The design of the facilities should allow the heifer to mimic this natural instinct.

Head Catch

Several commercially available head gates are acceptable for a calving stall. It is essential they open all the way to the floor and have straight side bars that constrain the head. These design peculiarities allow the heifer to lay down during the process without the danger of "choking down." A curved head catch gate can be modified by welding a straight pipe into the curved section. A wooden head catch may be less expensive (Fig. 1) but should open to the floor.

The gate can be equipped with a rope to lock the head from the rear or side of the animal when desired. The area beyond the head gate should be open and lighted so the animal will readily enter. A dark hole will discourage

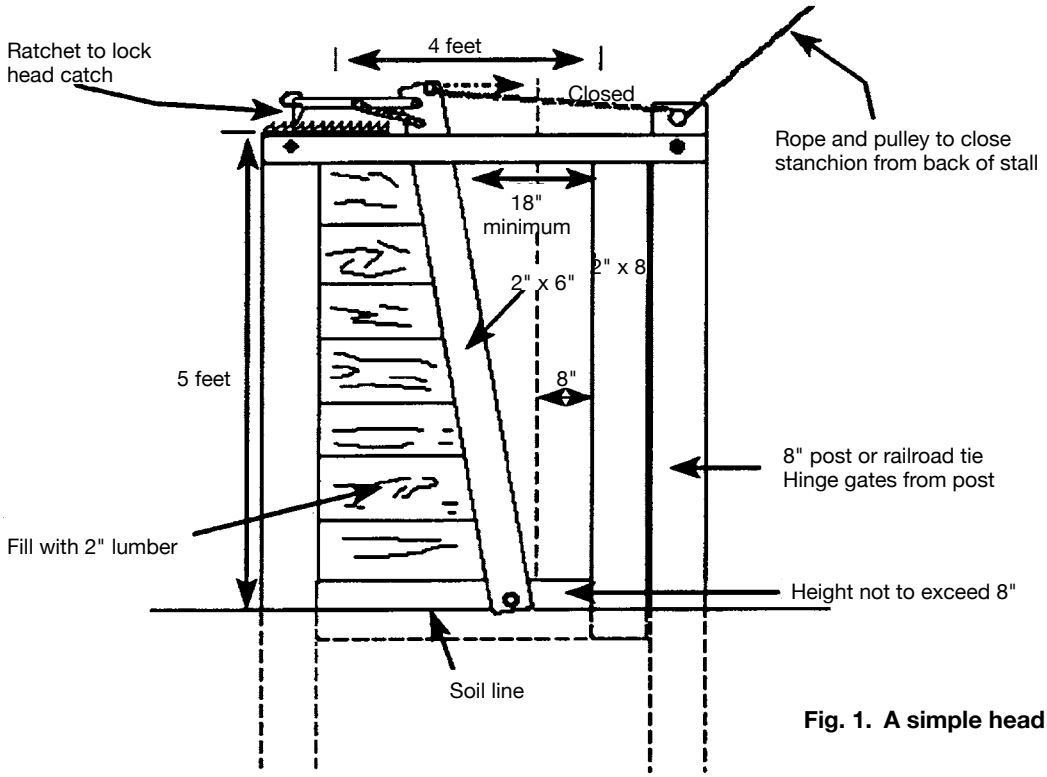

Fig. 1. A simple head catch for the calving barn.

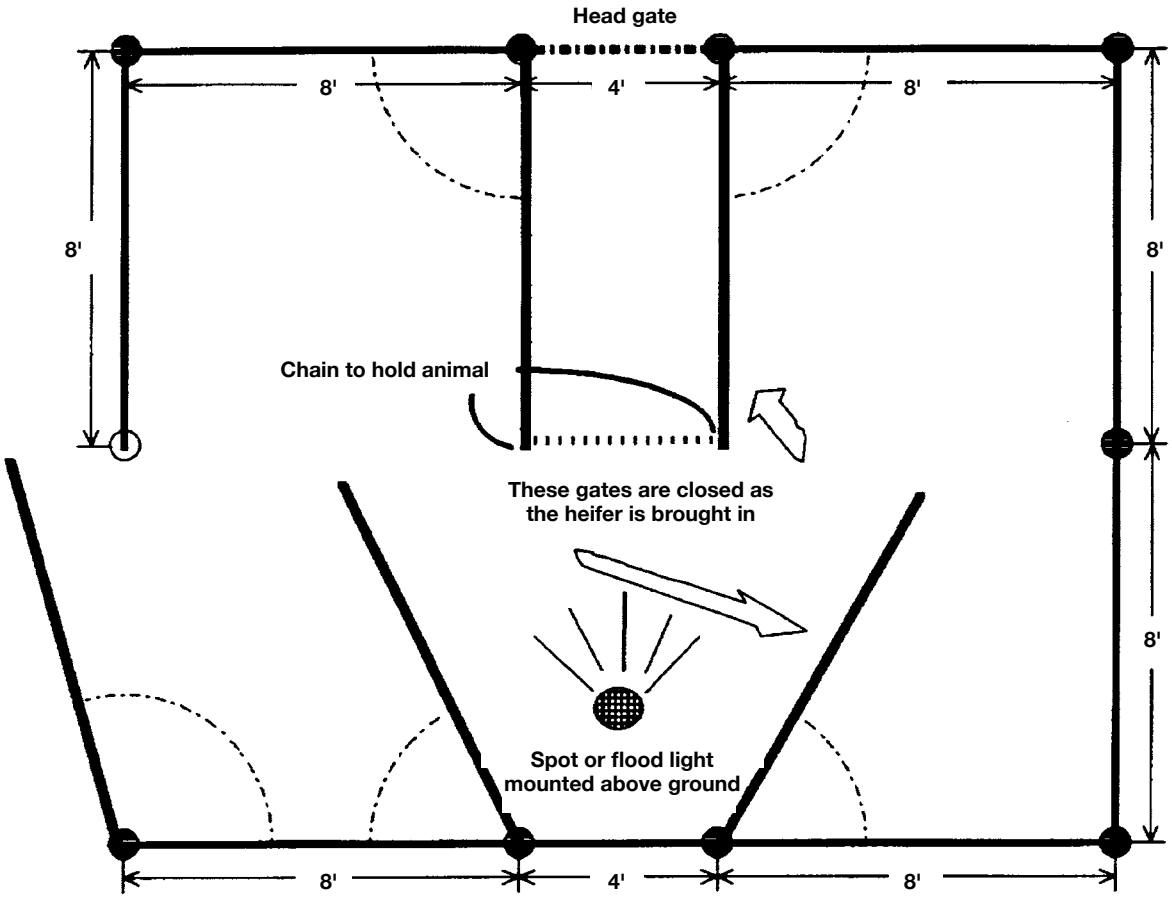

Fig. 2. Calving area floor plan.

most cattle from putting their head through the opening to allow head catch closure.

A squeeze chute is not an acceptable alternative. In proper assistance the calf needs to be delivered in an arc with final pressure directed toward the heels of the mother. In many births the heifer will lie down on her side for delivery that she cannot do in a squeeze chute. Furthermore, an operator will not have room to maneuver the calf or any mechanical device to direct the appropriate "downward" pressure. Worse yet is the case when the heifer goes down on her belly. She cannot be rolled to her side in the squeeze chute.

Often a producer is tempted to use a board or belts to hold the animal up. This does not allow room for the arched delivery and eliminates the squeeze as an alternative to the simple self catch gates. Further, it is more difficult to release the heifer postpartum and mimic the natural instincts as described previously.

Design

The head gate is placed between two posts in a fence line. These posts are also used as hinge holders for 8- or 10-foot panels. The panels can be brought together to move the animal's head into the catch and then fastened with a chain at the back end. Often the gates need to be stabilized to prevent swinging from side to side. This can be as simple as an angled foot brace on both sides of the panels.

A second set of gates should be hinged on the opposite side of the pen so that both sets (4 gates) can be swung open as delivery occurs. This allows room to correctly work with assistance equipment. Also with these open there is sufficient area for the postpartum bonding process. See Fig. 2 for one pen design example that can be modified to match gates and areas on most ranches.

One set of side gates can be closed, and the heifer brought to the small pen and manipulated into the head catch by using the second set of gates as leverage. A chain to hold the side panels together will confine the animal and reduce the possibilities of being kicked. Once assistance is started the gates can be swung back out of the way.

Once delivery is complete, place the calf in the back corner of the pen near the heifer's hind feet. Make certain the calf is breathing and apply iodine to the naval. Let the heifer back out of the head gate and leave her with the calf.

To accommodate the occasional cesarian section the left gate can be modified by being cut in half horizontally, thus allowing the top section to swing out of the way. If a calf needs assistance in nursing (a bad uddered cow, a weak calf, or a graft) the lower portion can be opened while the top restrains the heifer. These procedures should allow both animal and human relative safety.

Other items that will get used repeatedly are a few small 10- or 12-foot square pens. These can be used to continue and encourage the bonding process, help graft calves, or doctor sick cows and calves. The design of these pens should allow easy cleaning and sanitation.

Calving facilities should be user-friendly for both the cattle producer and the heifer. They should provide a safe, clean environment for the entire birthing process that should result in more live calves, healthier calves, easier rebreeding cows, and increased profits to the ranch.

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