



Deciding what type of equipment to put into the corral.

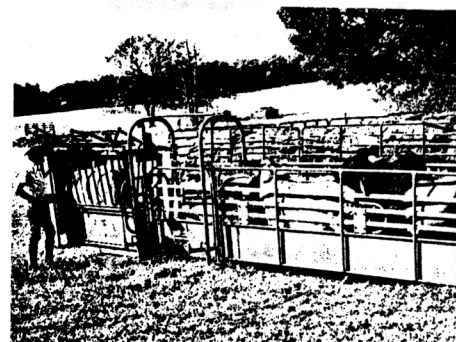
by Jim Hartmann

In the last article we compared squeeze chutes; this time we will take a look at the working alley leading into the squeeze chute. What different choices do we have to choose from? Well for the most part there are three ways to go.

First, there is again the cattle handling equipment. And again it falls short of being able to do the job. It fails basically, due to the fact that cattle equipment lacks the features that are needed for fast and safe handling of bison. Some drawbacks are the openness of design and the low height of the sides of the alley in cattle equipment. They lack the needed top cover to keep the buffalo from attempting to jump out of the unit. And it has been found that you should gate buffalo individually in a working alley because if you don't the ones behind will either try to climb over or hook the animal in front of them. To modify cattle handling equipment for use for buffalo is very costly and when completed usually has some drawbacks.

Some cattle equipment manufacturers also make rodeo equipment and some buffalo raisers have taken these bucking chutes and have modified them to work buffalo. Because of the individual design of the bucking chutes they worked fairly well by just basically adding some type of top. This has gotten them by to start with but over the years of use these lightly constructed rodeo chutes need to be rebuilt. They were built to be easily taken apart and moved by hand and not really meant for working 2000 pounds of unhappy buffalo.

The second choice is to build the alley yourself and this is the route that most have taken, usually because of readily available building materials. This is generally wood, many times in the form of rough cut native timber, and is not a bad choice, as it's fairly easy to work with and there is no need for expensive tools. A good saw, a big hammer, a spade and lots of hard work will build you something. But if you really get into doing it right it will take some time and a little more than a hand full of nails.



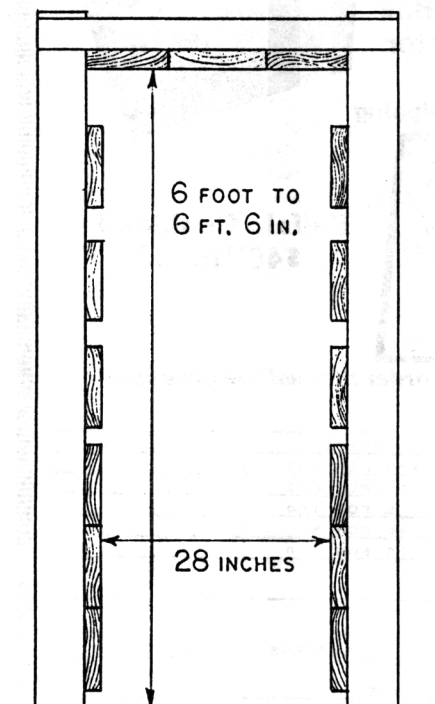
#1 Cattle-designed alley

There are three types of styles of wood alleys. All three are fixed width, in other words not adjustable in width. Type 'I' is the straight sided alley. This is probably the most common build of the wood alleys because it is the easiest to build and it requires the least amount of materials. Ideally it should be at least six feet tall and twenty eight inches wide to accommodate all sizes of stock. If it is wider than that, small animals will turn around inside it and if it narrower than that, you will have problems getting large ones to go through.

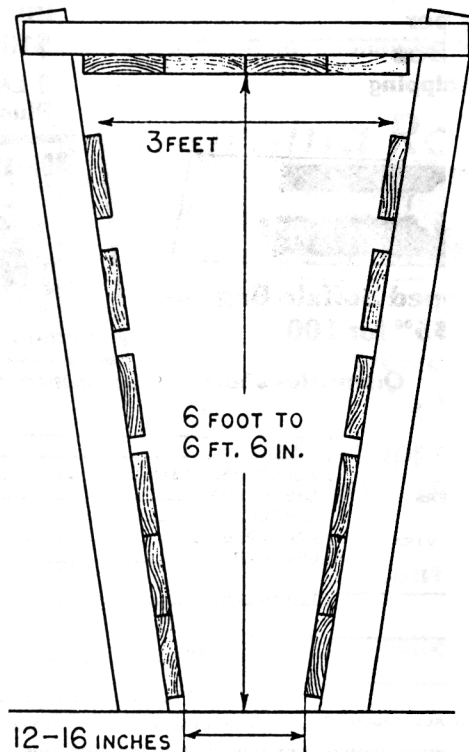
Type 'II' is the tapered sided alley styled like working alleys often found in large commercial cattle feedlot equipment. They work quite well when constructed of steel but when wood is used, stock may be able to get a toehold on the horizontal joint of the lumber and try to climb the sides. A way to help prevent that is to line the inside of the alley with either plywood or flat sheet steel. The width of the alley should be between twelve and sixteen inches at the ground and taper out to twenty eight inches at about forty two inches off the ground or three feet at six feet off the ground. This is a little more difficult to build because of the tapered setting and the spacing of the posts.

Type 'III' is the narrow bottom style alley.

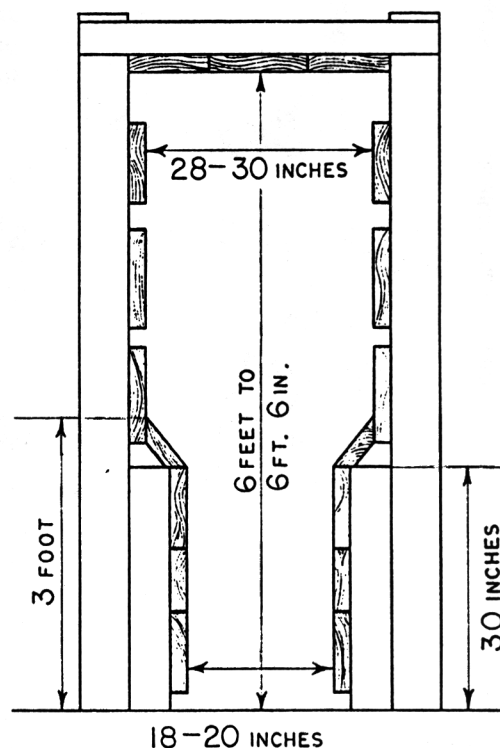
TYPE 'I'



TYPE 'II'



TYPE 'III'



This is probably the most difficult to build because of the build-up on the side of the post at the bottom. The alley should measure eighteen to twenty at the bottom and up to 30 inches from the bottom, and then the sides should taper out to twenty-eight to thirty inches from thirty-six inches and up. Again you may get some climbing with that ledge for a foothold.

All three types should be built with cutoff gates at eight to nine foot intervals. Each of these sections should have a side exit gate for emergency uses. For example, if an animal would go down or get over on its back. With the tapered sides or the narrow bottom type alley the side exit gates are difficult to build and hang. All alley types should have a top at six to six and one half feet to prevent attempts at climbing or jumping out. And if you really like challenges, you can try to make the alley adjustable in width to make it a more workable alley for working all sizes of buffalo.

Some have substituted other materials like oil well pipe, boiler plate, bridge planks, railroad trestle timbers, I-beams, railroad ties and others when building a working alley. But they have all basically followed the same designs.

The disadvantages to these three alley types is that they usually are not adjustable in width and can become a monument to buffalo raising if they are built in the wrong place or should your operation change location.

The alley that I designed and built for my corral for working my buffalo herd combines what I feel to be the best of all the working features and material available to make a very workable working alley. I chose to use mainly all steel in the construction of the alley, and I built it in component parts as opposed to a completely welded frame, like the squeeze chute. This made it easier for me to build the alley in the shop and then move it to the corral site and assemble it there. The alley can be moved at anytime with a minimum of work. I can add to it, change the control operation or completely relocate it at any future date with a minimum of work and little or no loss of material. I used a high strength tubular steel in the construction of the frames that make up the different components. It has a solid steel top, constructed of 12 gauge formed sheet steel and re-enforced with high strength square tubing. I decided to place the top so that I would have six and one half feet of interior clearance.

I prefer an adjustable width alley with a width adjustment from 16 to 30 inches in four different settings so I can work any size of buffalo and not have them turning around. When the alley is adjusted, a special deflector filler panel covers the opening between the side of the alley and the alley bow frame works, thus small animals cannot attempt to get out by going between the side and frame. The adjustable side of the alley is solid and is constructed of a combination of specially formed 14 gauge sheet steel and high strength square tubing. The non-adjustable side of the alley, the control side, has a built-in emergency side exit. It has a semi-solid top part and a solid bottom and is constructed of the same materials as the adjustable side exit is held securely closed by an overlapping latch system, I have only had to use it once, but I feel it was worth every effort it took to build it that way.

I have rolling cutoff doors every nine feet on both ends of the alley. I decided to construct these doors using a combination of a steel frame with 2 inch tongue and groove wood insert for maximum strength and to minimize

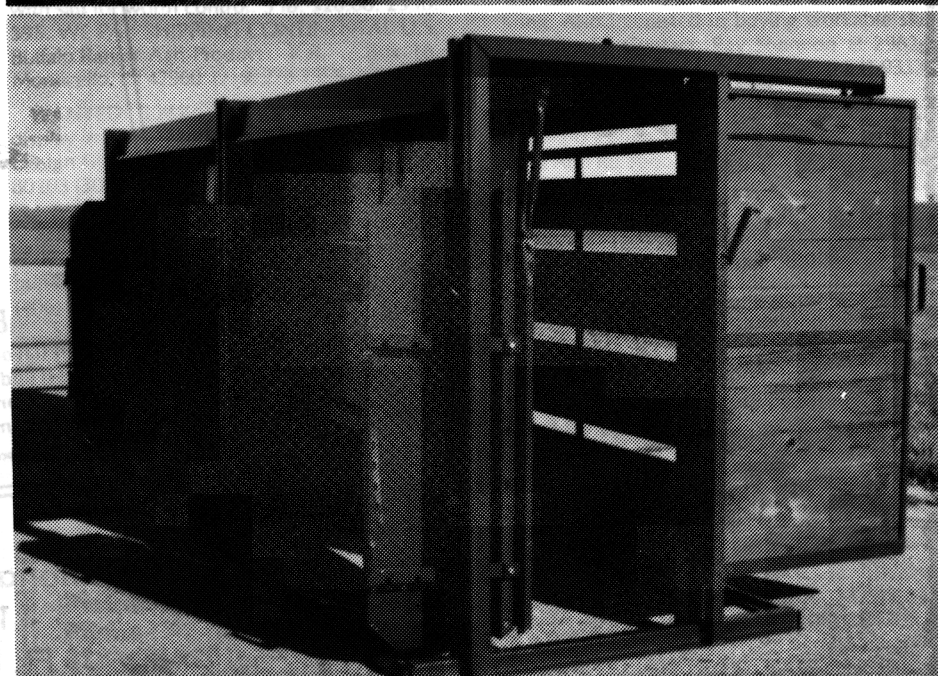
noise. The doors are hung and roll on commercial roller door hardware, stopping against rubber cushions at both the open and closed positions and locks in the closed position. This is all built into the vertical frames of the alley which bolts to a concrete floor for secure installation but can be easily relocated if that should ever become necessary. It is reversible in design so that it can be set up for either right or left hand operation with no additional parts or alterations needed.

In designing and building the alley I followed the same controlled lighting and limited vision principle that I used in the squeeze chute. The adjustable side is solid; the operator side has a limited amount of opening; the rolling cutoff doors and the top are solid as well. This limits the amount of light that enters the alley and I painted the interior of the alley flat black to reduce the reflected light. This has all helped in the movement of animals through the alley system and helps reduce much of the excitement of the buffalo while they are in the alley.

Another feature that you may want to consider placing in your alley system is a scale section. This scale should be placed in the alley just behind the squeeze chute. The scale can be used for weighing buffalo for record keeping and/or medication purposes. The scale I chose for use in my alley is a hydraulic load cell type with a dial readout. It weighs accurately to one half of one per cent from 0 to 3000 pounds even in the coldest winter weather. This type of scale doesn't need to be level in order to read accurately.

Again I will point out that there are many ways to build things with a small amount of cash investment to begin with, but in the long haul what you sacrifice in price in the beginning will come back and cost you in the end and you still won't have what you could have had for the total money spent and/or lost.

In the next issue we will take a look at the different ways to crowd the buffalo into the working alley or into a loadout.



Buffalo Ridge design