Cattle Yards

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All too often people in this country start cattle projects in a small way giving no thought to the possibilities of future expansion. The tendency is to think small with the result that when the farmer wishes to expand his project, he forgets that the yards he put up for his 10 *head herd are now completely inadequate for his increased herd.*

With this in mind it is best when commencing a set of cattle yards for 10 *beasts to build them to a pattern which lends itself to expansion to* 40 *head and later, if necessary, to expansion to hold* 120 *head.*

A. SITING OF YARDS

1. *Drainage*

All yards must be constructed on well-drained land and never in low-lying wet areas.

2. *Position*

(*a*) Cattle yards must be built on a fence line and not in the middle of a paddock. In this way the fence acts as a wing which cattle follow when driven and provided gates into the yards are near the fence line, cattle will walk into the yards without much trouble (see *Figure* 1).

(*b*) The area must be large enough to allow for future extensions as the herd increases.

(*c*) The yards should be near to the centre of the total area so that all paddocks are accessible to the yards without having to drive the cattle further than necessary. If it is possible to extend the total area in the future, then this should be taken into consideration when choosing a site for yards.

(*d*) The yards should be close to an existing road to enable the loading and unloading of cattle into the yards and facilitate servicing of the project by officers of D.A.S.F.

3. *Shade and Water*

(*a*) Where possible, shade trees should be left and not cut down. Build the yard around the trees, leaving trees in the holding yards to give shade to the cattle. Trees should not be left in the *centre* of the fencing yard but can be left standing close to the fence. Never use trees as fence posts for the yards and always remove trees from gateways. If trees must be removed, peg out the yards first, then remove unwanted trees. It is best not to leave too

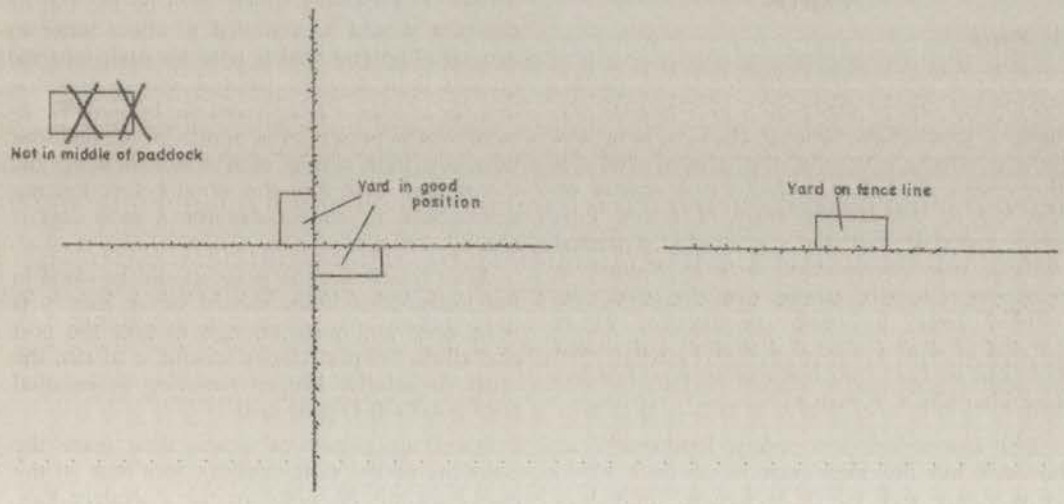

Figure 1.—Yard is built on an existing fence line

many trees otherwise the sun will be unable to dry out the ground. If there are no trees around the yard site, then plant some. Make sure they are protected from trampling in the early stages by enclosing them inside a sturdy fence.

(*b*) Water is essential and should be available to animals held in the yards for any length of time. As well as for drinking, water is necessary for washing and also for the spraying of stock against cattle tick in tick-infested areas.

Build the yards if possible near a creek or river from which water can be easily got to the yards—either by pipe reticulation or by buckets.

4. *Small Holding Paddock*

A small holding paddock of 2 to 5 acres should be built on larger projects for holding animals for short periods. This paddock should be built adjoining the yards. It must include a permanent water supply (be it reticulated or a creek) and can also be used as a convenient place for sick animals (see *Figure* 2).

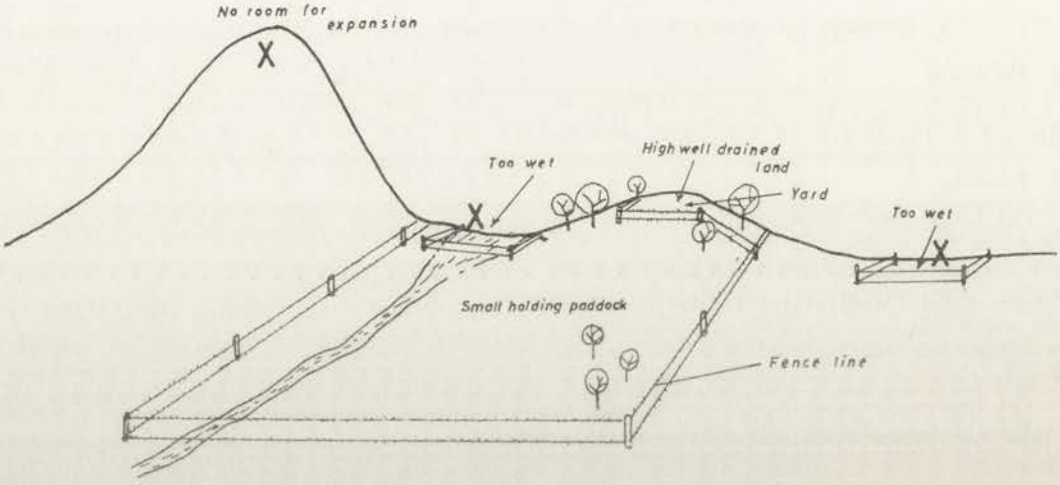

Figure 2.—Small holding paddock is built adjacent to yard

B. MATERIALS USED IN BUILDING YARDS

1. *Posts*

(*a*) *Galvanized iron pipes.*—Good permanent posts can be made of 3 in (internal diametre) pipes. Get them 9 ft 6 in long and cement them 3 ft into the ground and fill them with sand. Cap with 2 in of cement on the top to prevent the entry of water. Pipe posts, especially near the sea, should be painted with a rust preventative such as Kilrust at least once a year taking care to cover the welded areas. In crush construction, 21 ft lengths of 2 in (internal diameter) galvanized pipe can be bent into bows using pipe benders (see Plan No. 4, *Figure* 8).

(*b*) *Hardwood pots.*—Any hardwood can be used but the logs must be at least 12 in in diameter and 10 ft in length. Split logs and those of a smaller diameter must not be used. Logs are cut into the correct lengths and debarked. That end which is to be the top of the post should be rounded to allow water to run off. The end which is to be sunk into the ground must then be painted with a preservative for at least 4 ft up from the bottom. Treatment with preservative must be carried out three or four times, each time allowing the chemical to soak into the wood before treating again. Soaking once a day for 2 or 3 days is usually sufficient.

After treatment, the posts should be stood in the holes. Post holes should be at least 3 ft 6 in deep and wide enough to take the post and allow adequate room around it to ram the earth in solidly. Proper ramming is essential for a good solid set of yards.

Stand up a row of posts, then mark the positions of the rails, making sure that all the marks on all the posts are in a straight line. For distances between rails see Plan No. 4.

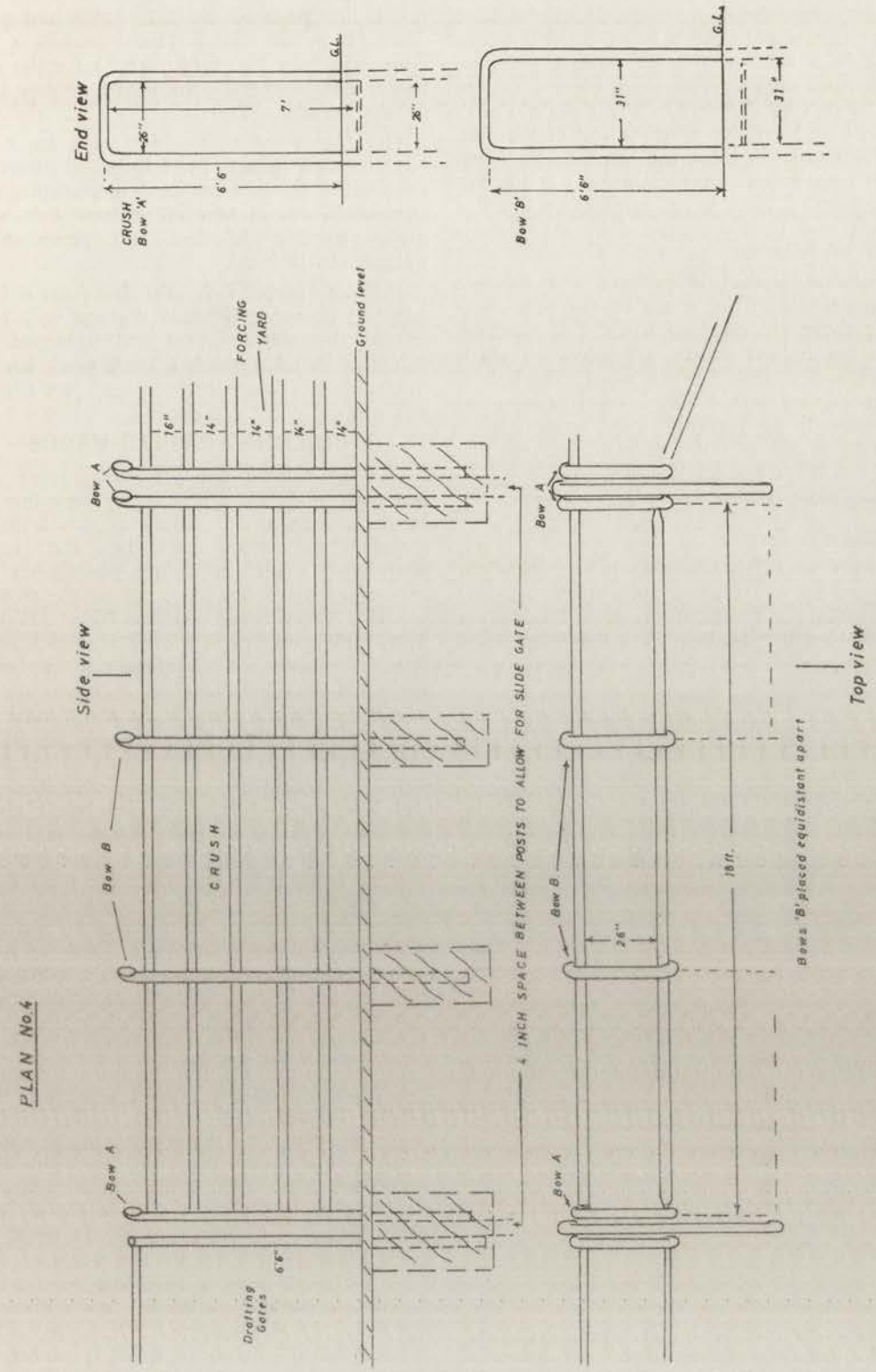

Figure 8.—Cattle crush

The measurements for the crush are the same as for the whole yard. When the rail positions have been marked, cut out enough wood on each mark on the posts to enable the rails to be let in (see *Figure* 3). When the rail positions have been cut, paint the rest of the post, including the cut areas, with preservative. Common preservatives are creosote or 50 : 50 creosote-sump oil mixture or any other preservative which may be recommended by the Department of Forests.

Another method is to bore a 1 in hole downwards into the centre of the post about 1 ft above ground level when it is standing. Into this hole is poured a preservative which is allowed to soak into the wood. The hole is then plugged with a bit of wood to keep out moisture. Every 3 months, more preservative is poured into this hole. Several cigarette tins full can be poured in, letting it soak in before adding more (*Figure* 3).

2. *Rails*

(a) *Pipe rails.*—Galvanized 2 in pipe can be used for the forcing yard, crush, vet. bail and loading and unloading ramps. These pipes are welded into position onto the 3 in galvanized pipe posts or the 2 in galvanized pipe bows (as in the crush). (See Plan No. 4 for crush and Plan No. 5 (*Figure* 9) for the vet. bail and drafting gates, and Plan 6 (*Figure* 10) for the unloading ramp.)

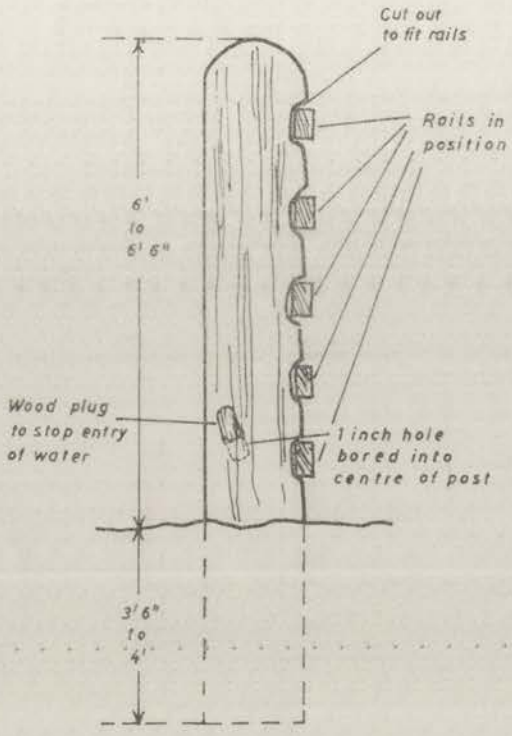

Figure 3.—Notches are cut out of posts to fit rails. A hole may be bored and preservative poured in

(b) *Hardwood rails.*—Ideal rails are 6 in by 2 in sawn timber, 18 ft long and preservative-treated. If sawn timber is unavailable, any straight hardwood logs of at least 4 in diameter, suitably debarked and preservative-treated, can be used.

Fastening timber rails to timber posts is best achieved by using doubled 8-gauge wire tied around the rail and post and tightened by means of twitching with a small pinch bar or the handles of large fencing pliers (see *Figure* 4).

C. BUILDING CATTLE YARDS

As was pointed out previously, yards are best built alongside a permanent fence line or on the corner of a paddock as this is most useful when driving cattle into the yards. Bearing in mind the future possibilities of expansion, the following 3 plans are recommended. You will see that Plan No. 1 (*Figure* 5) is quite sufficient as a basic plan to handle 5 to 15 beasts and additions can be fairly easily added as per Plan No. 2 (*Figure* 6) to enable the yards to handle up to 50 head of cattle. When further herd increases are planned, Plan No. 3 (*Figure* 7) shows an effective way of enlarging the yards to enable them to cope with up to 120 cattle. Plan No. 1 gives the basic plan for a crush, fencing yard and small yard to be built along a fence line. A point to remember is that the fence itself does not constitute one side of the yard. That part of the yard on the fence line must be built of timber or pipe posts and rails. Three or four strands of barbed wire would not withstand the inevitable hustle and bustle of cattle movement while in the yards.

PLAN No. 1

1. Mark out on the ground with pegs the position of the posts for the crush, forcing yards and small yard. Establish point Y which is on, or just inside, the fence line. The distance from Y to A is 54 ft. Other distances should be pegged out in a straight line as follows: A to D_1—18 ft; D_1 to X—18 ft; X to B—9 ft and B to Y—9 ft. The width of the crush is 26 in. This is to ensure that cattle cannot turn around inside the crush. Place a peg at C—24 in inside width if piping is to be used and 26 in inside width if timber is

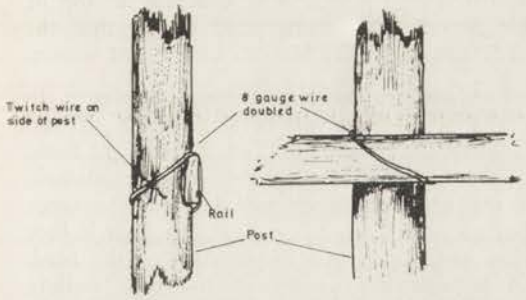

Figure 4.—Fastening of timber rails to posts

used. The distance C to D_2 is 18 ft. From point X measure 9 ft in a straight line to F; from F to E, 3 ft, and E to G a further 6 ft. The distance from D_2 to E, if pegs have been placed properly, should be 20 ft 6 in. Place a peg half-way along between D_2 and E.

From peg Y measure 27 ft along the fence line, putting pegs at 9 ft intervals to point I, and put in a peg. From I to J—a distance of 27 ft—place pegs at 9 ft intervals.

2. Dig holes at all the peg marks. It is best to dig all the holes on one side first—say A to Y— to ensure they are in a straight line. Posts are 9 ft centre to centre except for the crush. With the crush the two end holes (i.e., A and D_1) are dug first and then 4 post holes in between A and D_1. That is, there are double posts at A and D_1 through which a gate slides and two more intermediate posts placed equi-

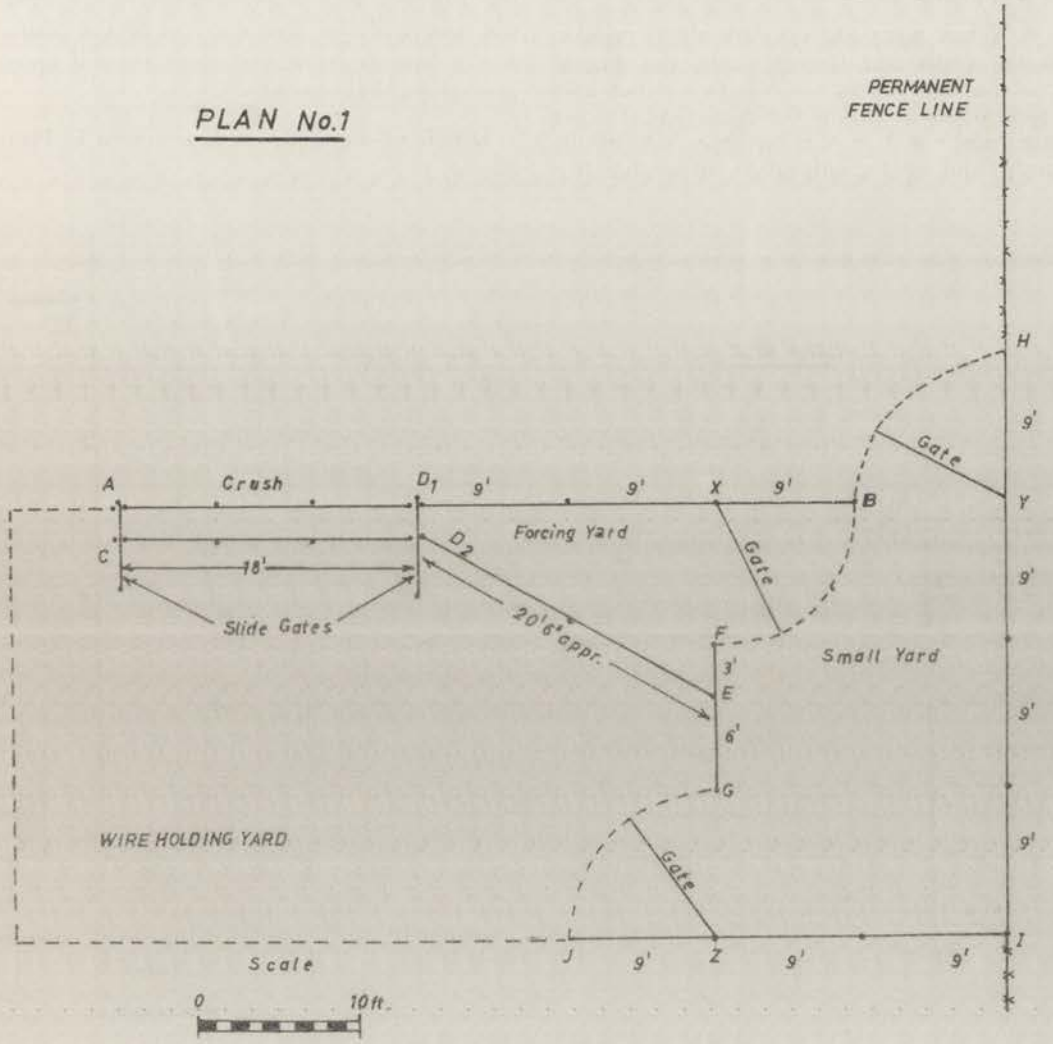

Figure 5.—Basic plan cattle yard (5 to 15 head)

distant from A and D_1. Dig all the holes in this way one line at a time.

3. Stand up all the posts. It is best to do the end posts in each line first and line up the intermediate posts between them. Ram the posts in position, making sure that they are vertical.

4. Fix all rails to the inside of the posts—either with tie wire or welding (according to the materials used) where they are needed. When building yards, all rails should be on the inside for extra strength. When fixing rails inside the crush, remember to ensure that the inside width of the crush is never more than 26 in.

5. Brace the posts in the crush by joining the tops of the posts on each side with a length of 6 in hardwood.

6. When posts and rails are all in position in the crush and forcing yards, the ground must be dug out as follows. Dig it out to a depth of 6 in inside the crush and forcing yards and for 2 to 3 ft on either side of the crush—and replace with gravel. If possible, it is even better to put 2 in of concrete on top of this gravel. This work is to ensure that the yards remain workable even in the wet season.

7. Gates are hung on the straight fence. In Plan No. 1, these will be at points X, Y and Z. They are always hung on the straight fence to protect the gates against rushing animals. If the gates are open and lie along a fence they are less likely to be damaged than if they were lying open and in the path of the herd. To prevent the weight of the gate pulling down its support post, the posts must be braced in some way. You can nail a 6 in diameter piece of hardwood across the gateway. However, if you are driving cattle on horseback into the yards, it is better to brace the gatepost with stays. External gates need not necessarily be positioned as in the plans. Much depends on where fences are and upon general paddock layout.

Details of the cattle crush are given in Plan No. 4.

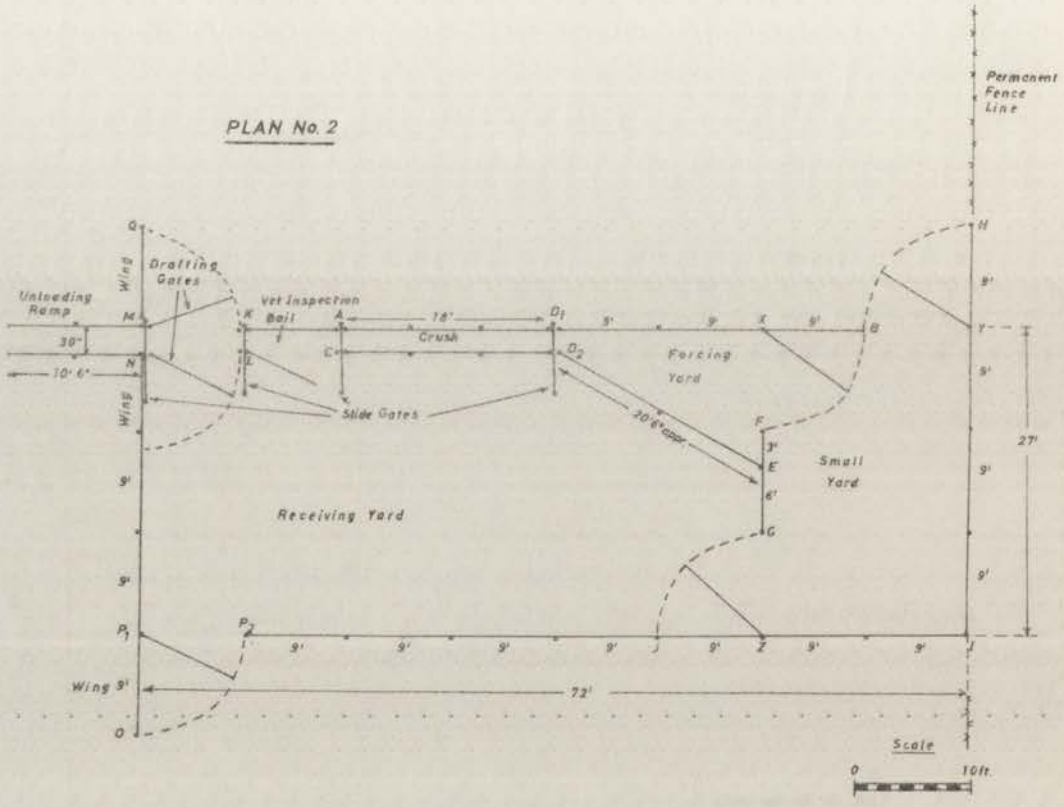

Figure 6.—Extension to basic yard (15 to 50 head)

PLAN No. 5

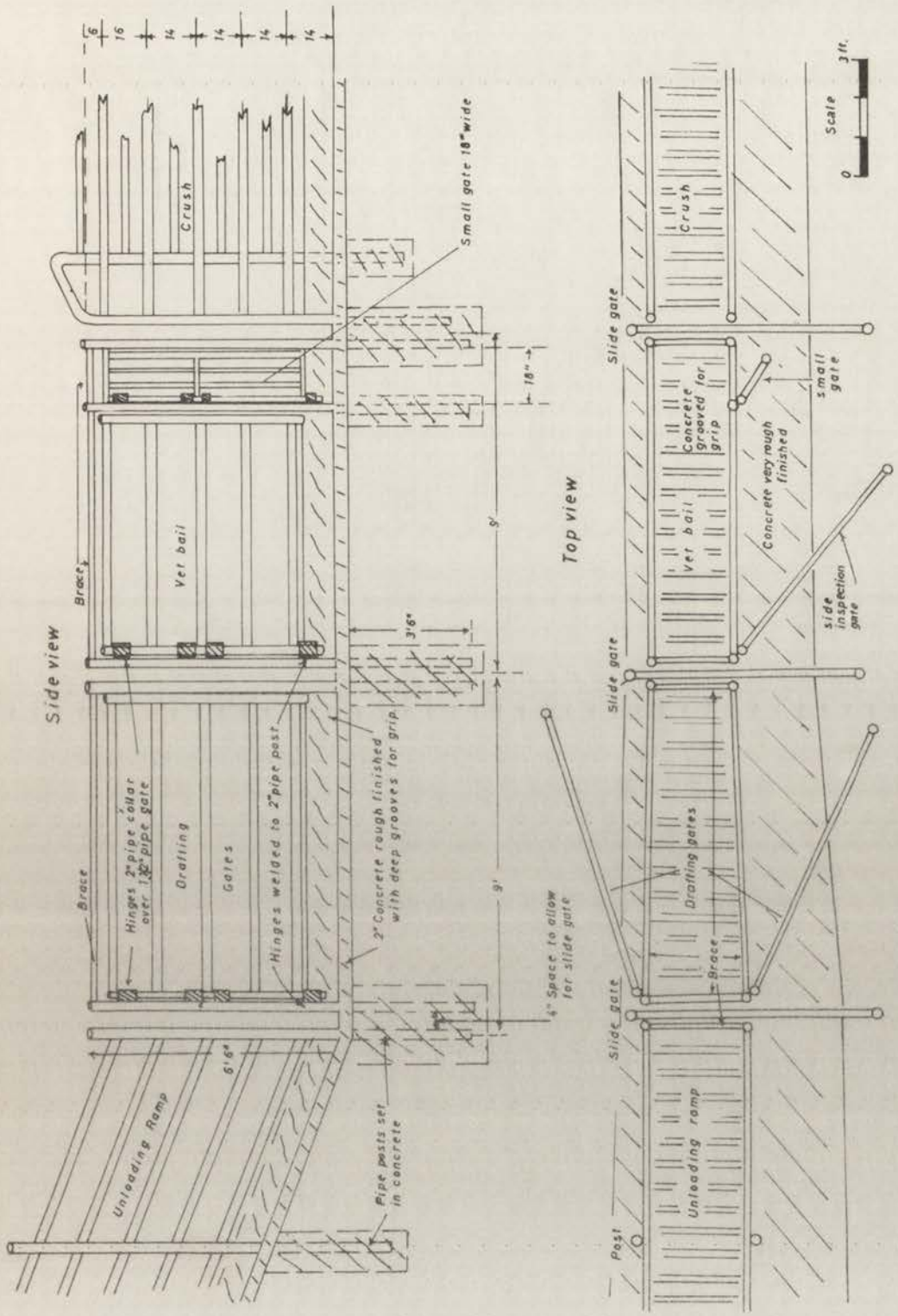

Figure 9.—Drafting gates and vet. bail

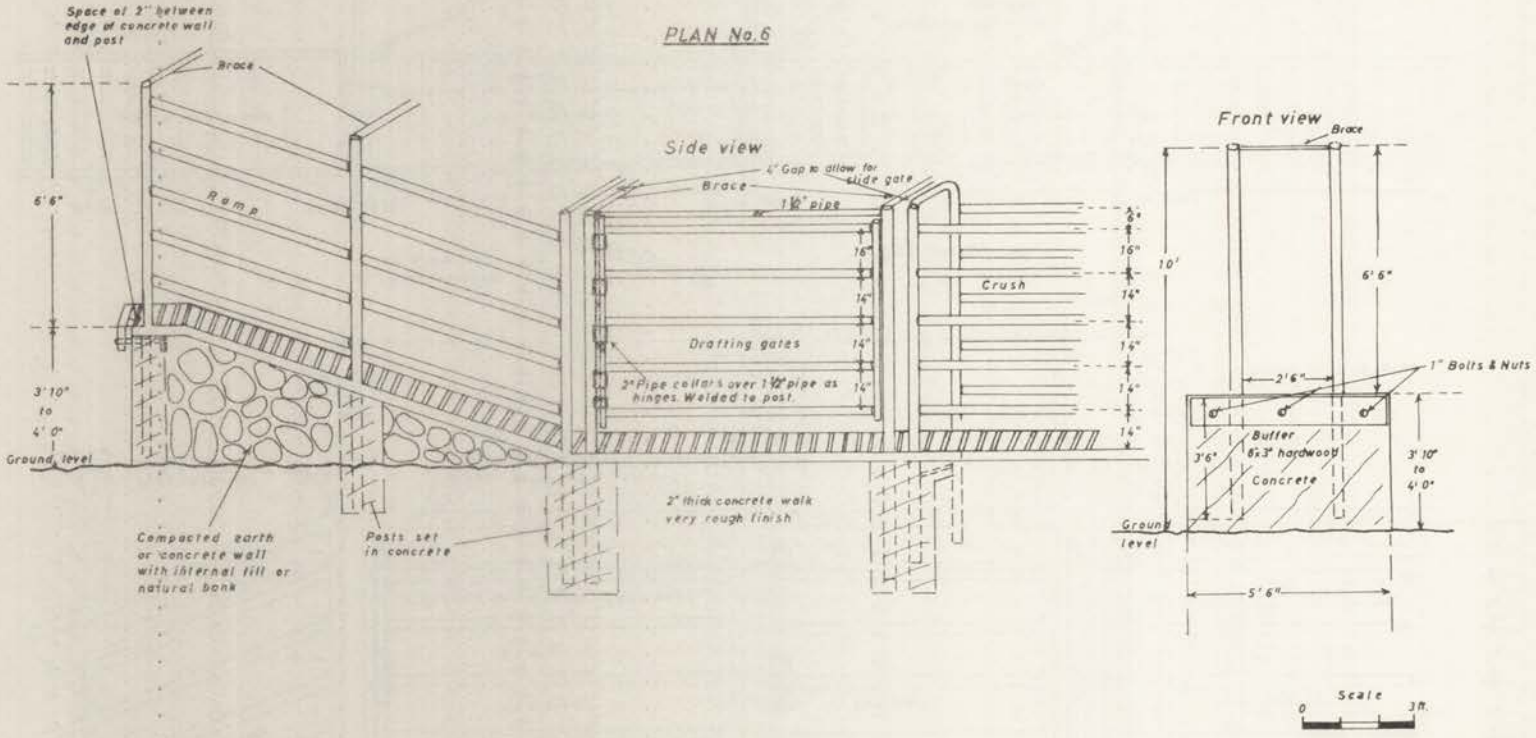

Figure 10.—Unloading ramp

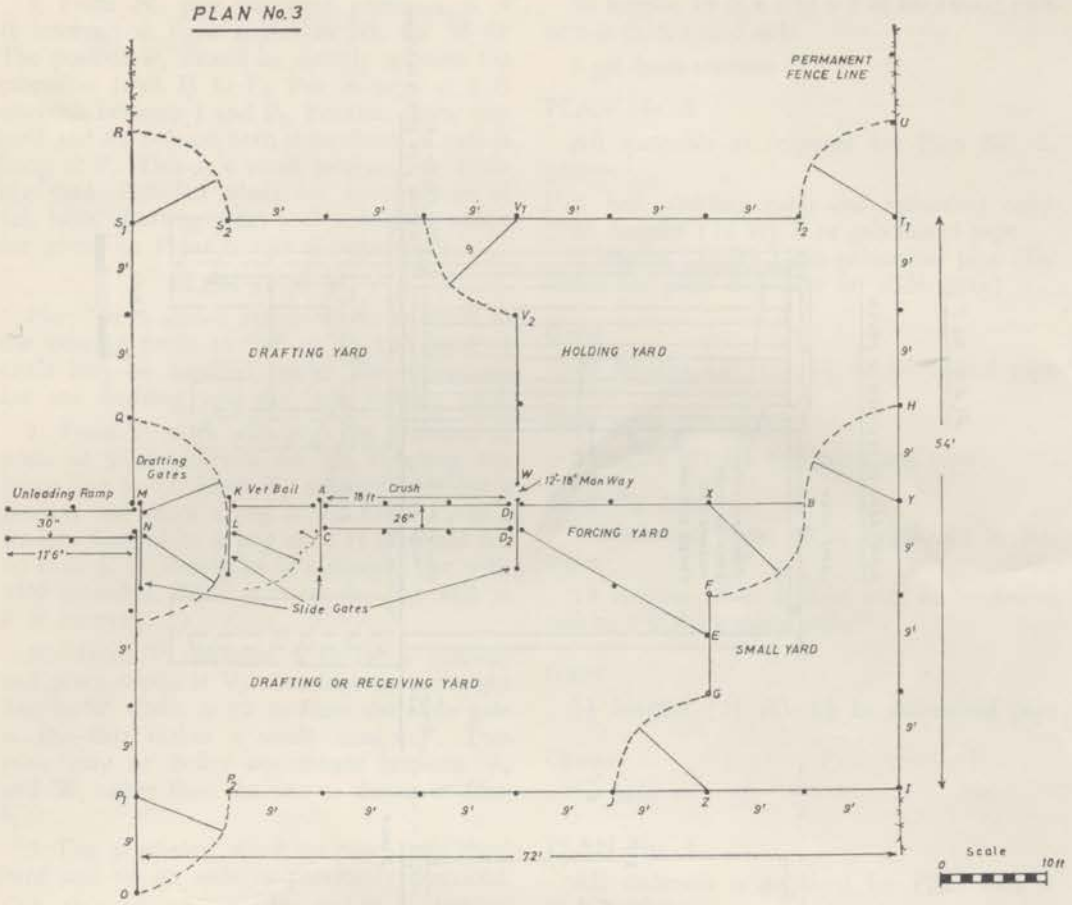

Figure 7.—Cattle yard extended to accommodate 50 to 120 head

Construct slide gates out of 2 in galvanized pipe (see Plan No. 7, *Figure* 11). The gate slide is made of $1\frac{1}{2}$ in galvanized pipe. Plan No. 7 shows slide gates suitable for crushes and vet. bails. If making a slide gate for an unloading ramp, it should be 6 in wider. Old grease is used as a lubricant to allow the 2 in pipe to slide over the $1\frac{1}{2}$ in pipe.

As cattle become very excitable if allowed to come straight out of a crush into a big paddock, a wire yard should be built off the end of the crush. Cattle can then be released from the crush and held in this yard until they settle down before moving them back to their paddock.

The approximate position of this yard is shown in Plan No. 1. The actual size of the yard will depend on the number of cattle held but should allow a minimum of 40 sq ft per beast.

PLAN No. 2

Plan No. 2 gives additions to the basic plan No. 1 to increase yard size to enable handling of up to 50 head of cattle. It adds a vet. inspection bail, drafting gates, loading ramp and a receiving yard.

1. Peg positions for double posts at K and L, 9 ft from A and C. Keep internal width of vet. bail the same as that of the crush. Dig holes, stand up posts, ram them and fix rails as described previously. A gate is hung at L. A small gate is also a good idea—hung from a post 18 in from C—to enable the inspector or vet. to enter the bail easily.

2. Peg the position of double posts at M and N, 9 ft from K and L. This time, however, the internal width of the loading ramp is wider—at least 30 in. Stand up posts and ram them hard. Gates (called drafting gates) are hung from both M and N.

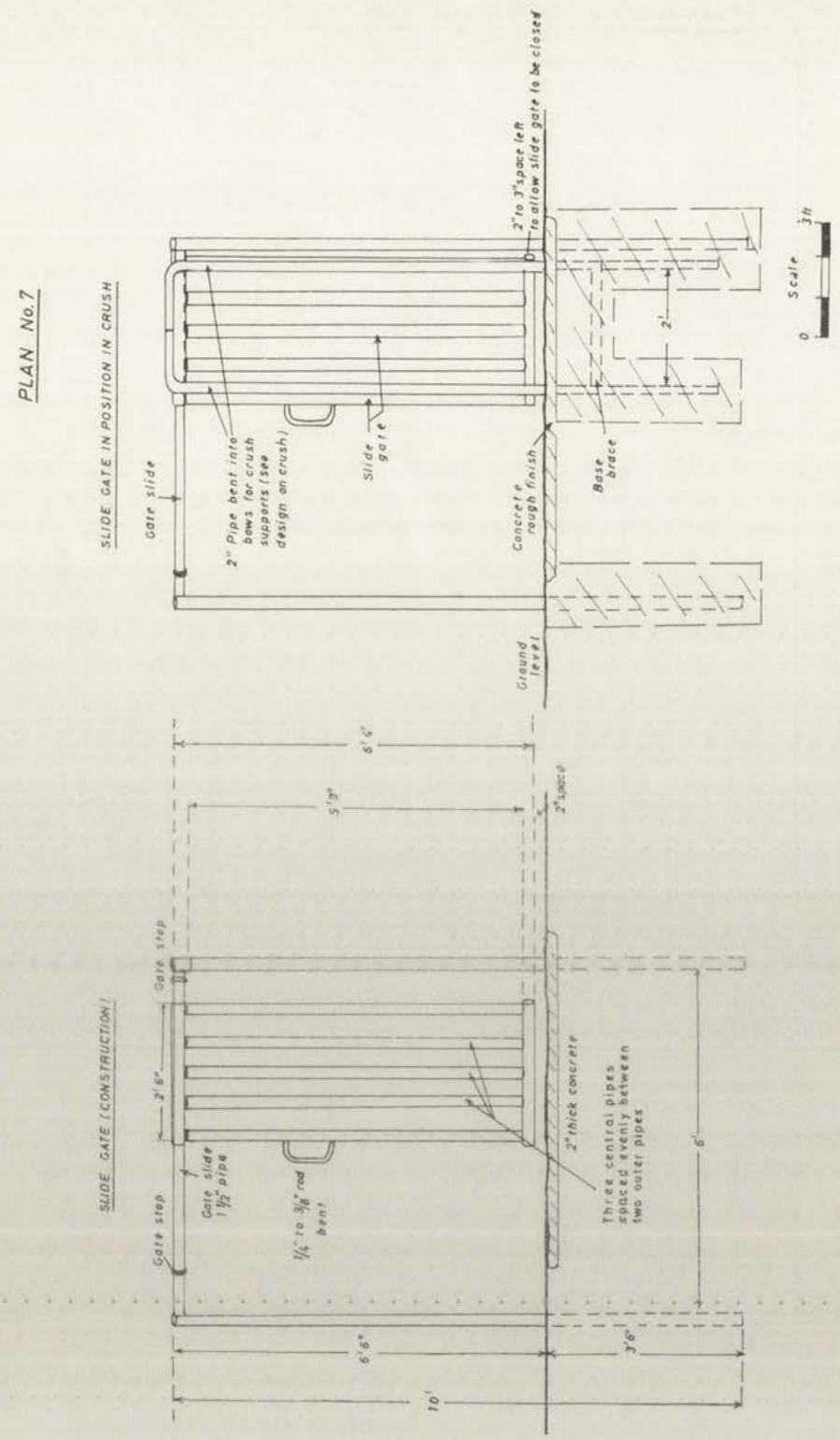

Figure 11.—Slidegate (for crush only). N.B.: Slidegate for unloading ramp should be 6 inches wider than this

3. From N, peg out post positions at 9 ft intervals at right angles to NL for 36 ft. The position P_1 should be directly opposite the extension from IJ to P_2. Put in pegs at 9 ft intervals between J and P_2. Position posts, ram hard and fix rails on both these lines. A gate is hung at P_1. This is a small receiving or drafting yard. Detailed plans for construction of vet. bails, drafting gates and unloading ramps are given on Plans 5 and 6 respectively.

PLAN No. 3

Plan No. 3 allows extensions to be made to the existing yards so that up to 120 head of cattle may be handled easily. The extensions are one drafting yard and one holding yard.

1. From Y, mark with pegs the positions of posts at 9 ft intervals for 36 ft along the fence line to U. From T_1 measure 9 ft for a gateway and place a peg at T_2. From T_2 in a straight line place a peg at 9 ft intervals for 63 ft to S_1. S_1 should be in a straight line with MN extended. Place pegs on the line MR at 9 ft intervals.

2. From V_1 measure 9 ft for a gateway and place a peg at V_2. Continue in a straight line to W which is 12 in from the slide gate at D_1—this makes a small 'man-way'. Two posts may be better equidistant between V_2 and W, rather than the one as shown in Plan 3.

3. Dig postholes, stand up posts, ram them hard and tie on rails as previously described.

4. Hang gates at S_1, V_1 and T_1 as before.

You now have a further drafting yard and a holding yard.

MATERIALS LIST

PLAN No. 1

Crush and forcing yard with wings

38 lengths (21 ft) 2 in galvanized pipe (includes bows as shown in Plan No. 4)

Gates

11 lengths (21 ft) 2 in galvanized pipe

Slide gates

8 lengths (21 ft) 2 in galvanized pipe
½ length (11 ft) 1½ in galvanized pipe

Cement

10 bags (1 in thick in crush plus posts cemented in holes)

Small yard

8 hardwood posts, 10 ft length, 12 in diameter

18 lengths 18 ft x 6 in x 2 in hardwood rails or 6 in thick round rails

5 gal drum creosote

PLAN No. 2

All materials as required for Plan No. 1, plus—

Vet. bail, drafting gates and unloading ramp

21 lengths (21 ft) 2 in galvanized pipe
2 lengths (21 ft) 1½ in galvanized pipe (for braces for gates and slide for slide gates)

Gates

14 lengths (21 ft) 1½ in galvanized pipe

Slide gates

8 lengths (21 ft) 2 in galvanized pipe

Receiving yard

7 hardwood posts, 10 ft length, 12 in diameter

18 lengths 18 ft x 6 in x 2 in hardwood rails or 6 in thick round rails

Gates

3½ lengths (21 ft) 1½ in galvanized pipe

Cement

10 bags

PLAN No. 3

All materials as required for Plans Nos. 1 and 2, plus—

Drafting and holding yard

16 hardwood posts, 10 ft length, 12 in diameter

35 lengths 18 ft x 6 in x 2 in hardwood rails or 6 in thick round rails

Gates

10½ lengths (21 ft) 1½ in galvanized pipe
3 lengths (10 ft) 6 in x 2 in hardwood rails for gate brace

Complete materials list for Plan No. 3

74½ lengths (21 ft) 2 in galvanized pipe
41½ lengths (21 ft) 1½ in galvanized pipe
20 bags cement
31 hardwood posts, 10 ft long, 12 in diameter
72 lengths 18 ft x 6 in x 2 in hardwood rails or 6 in thick round rails
5 drums (5 gal) creosote