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Arrangement of Barn Floor Plans

Plan No. 721-C-11

General Purpose Barn—Stock Face In

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The investment in farm buildings may be reduced by careful planning. The floor plan of any barn should be laid out so that every square foot will be used to the best advantage. The plans should provide for the maximum comfort of the livestock and should also provide all the room required for the attendants to move about in the barn so the stock may be cared for with the least amount of labor and the fewest possible steps.

The plan shown is designed for the general farm where the horses and dairy cows are stabled in the same barn, and this plan is recommended for use where it is not economically possible to build a separate barn for the dairy animals. It is quite necessary, however, that the horses and cows be separated by a tight partition. At no time, should poultry, swine, or sheep, be permanently housed in the dairy barn.

Some of the factors which make this barn plan particularly adapted to the general farm are listed.

1. Compact and efficient arrangement of stock. Space for 20 cows, 6 horses, 4 pens, and a box stall is included in a total length of 70 feet without crowding the animals. Note that the four pens are easily accessible, are standard size, and occupy a very small area. When a second cow pen is necessary, the herd sire may be conveniently stabled in the box stall in the horse barn.

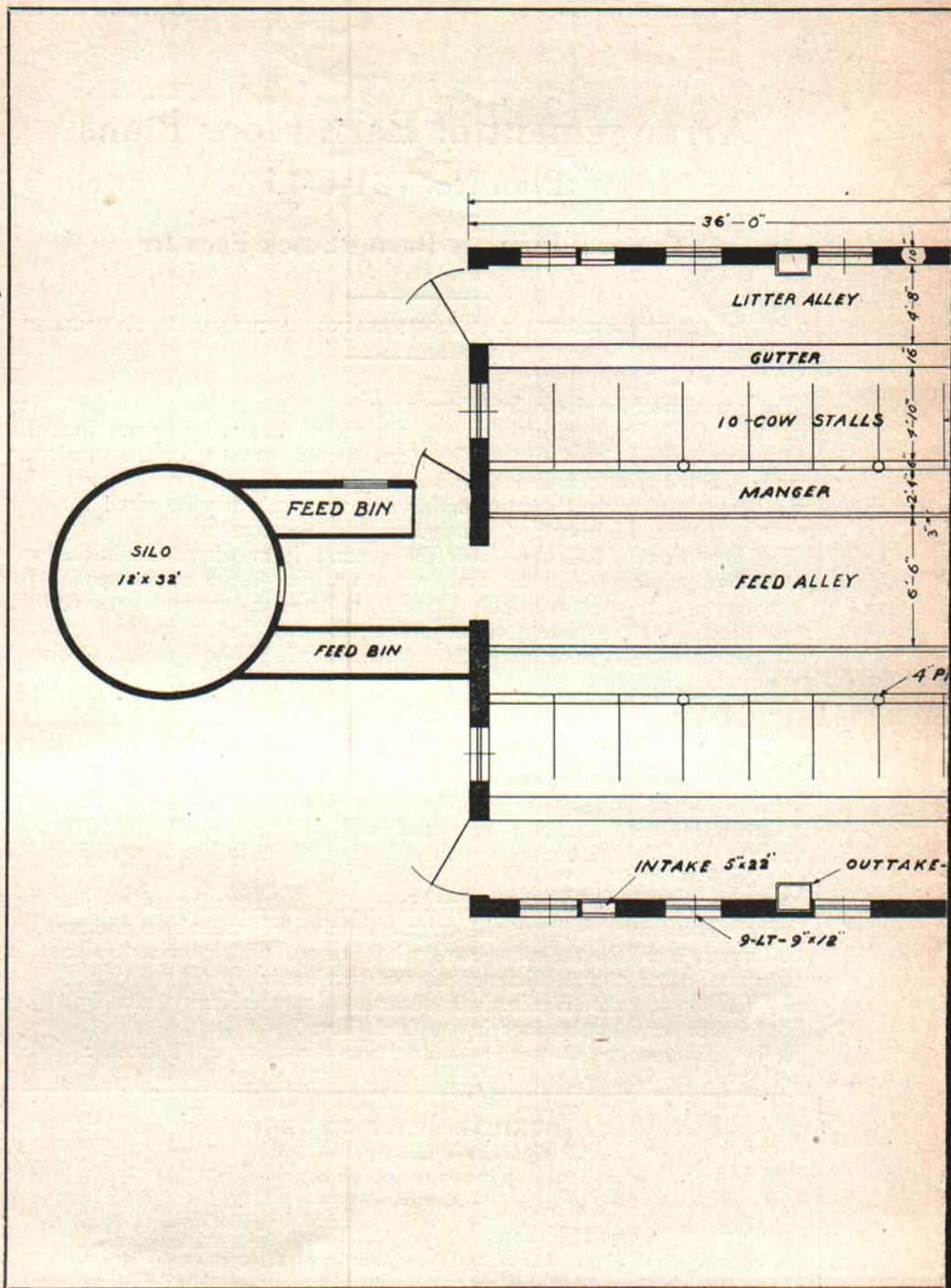
2. Low cost per unit of livestock housed. A barn planned to eliminate all waste space and to house the largest number of animals in the smallest possible space will be the most economical one to build, provided, of course, that animal comfort and efficiency are not sacrificed.

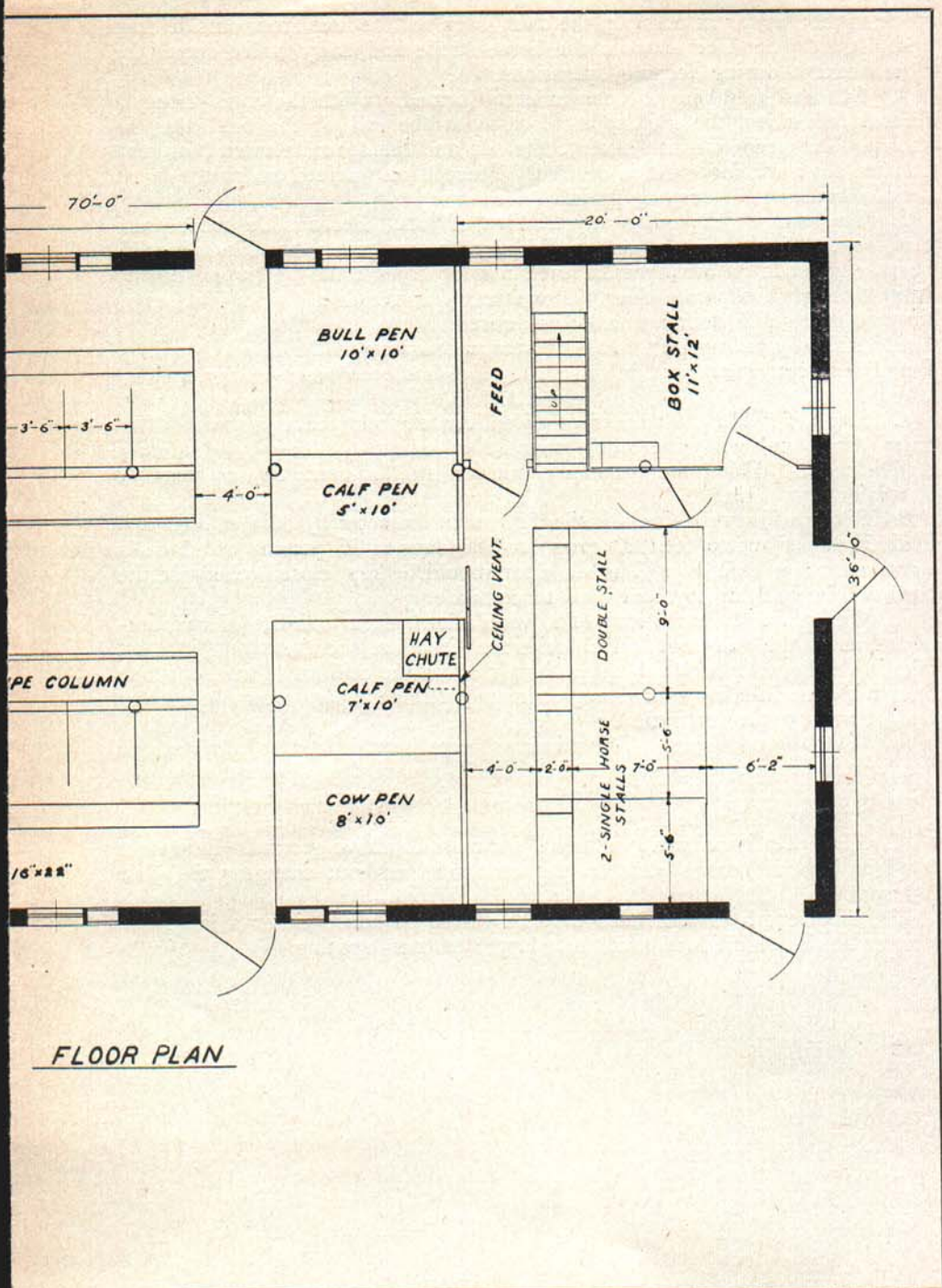
3. The horse stable is effectively separated from the dairy barn by a partition broken only by the door in the feed alley.

It is considered good practice to separate the dairy cows from all other

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stock so that, as far as possible, the dairy barn will be free from outside dust and odors. The door between the horse stable and dairy stable should be closed except during feeding operations.

4. Silo and feed bins are conveniently located. With the cows facing a central feed alley, the silo is best located at the end of the feed alley as shown. The feed bins are close to the silo and the space between bins may be used for a mixing room if desired. There is also a feed bin in the horse barn convenient for feeding grain to the horses.

5. The plan is adapted to any location of lots. Perhaps the most practical location for the cattle yard would be at the end where the silo is placed, because by such an arrangement each row of cows could be turned out or enter through a separate door. However, it is possible to let the cows through either side door into a lot as desired.

6. Stairway to hay loft. In any barn, a stairway to the hay loft will be found very convenient and in this plan space has been reserved for a stairway.

7. Standard width. The 36 foot width has been adopted as a standard for dairy barns and will give ample room even where the new type sanitary stall is used. Where the common stanchion stall is used, 34 feet may be a satisfactory width.

8. Silo is of correct size. A silo 12 feet in diameter by 32 feet high will hold enough silage to feed 20 cows for 180 days if 35 pounds of silage is fed to each cow each day. The silo door should be kept closed otherwise the barn will be cold, drafty, and hard to ventilate.

9. Well-planned ventilation. The ventilation system consists of two out-take flues in the dairy part which take the air off at the floor and take in the horse barn which takes the air off at the ceiling. These out-take flues with the in-takes spaced approximately 12 feet apart around the barn will provide ample ventilation.

10. Well-lighted barn. The windows have been placed to allow about one square foot of window area for each 20 square feet of floor area. In some districts, this is the minimum amount of light permissible for production of "Grade A" milk.

11. This plan is primarily intended for a stable above ground. However, it might be built into a bank on the west side, without changing the plan in any way.

12. The length of this barn may be varied to house either a larger or smaller herd. Additions should be adapted to truss spacing.