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EC222 Revised 1923 Sanitation in Connection with Pig Raising

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I. D. Wood

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THE UNIVERSITY OF NEBRASKA
AGRICULTURAL COLLEGE EXTENSION SERVICE

Revised, September, 1923 Extension Circular 222

SANITATION

IN CONNECTION WITH PIG RAISING

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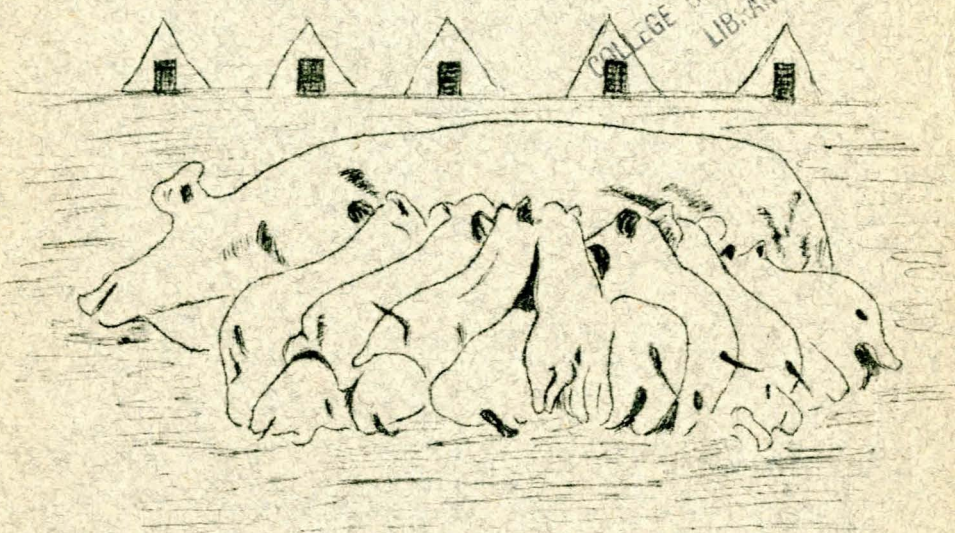

COOPERATIVE EXTENSION WORK
IN AGRICULTURE AND HOME ECONOMICS
U.of N. Agr. College & U.S.Dept. of Agr. Cooperating
W. H. Brokaw, Director, Lincoln

Revised
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Nebraska
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Extension
Circular
222

SANITATION IN CONNECTION WITH PIG RAISING

By M.B. Posson, P. H. Stewart, I. D. Wood

The suggestions in this circular are offered with the hope that they will aid in the more general adoption of certain principles of sanitation which are of paramount importance in economical hog production.

Sanitary methods of handling the pigs on Nebraska farms will do much to decrease the loss occasioned by young pigs. A considerable portion of Nebraska's pig crop is destroyed each year by preventable diseases and parasites. By applying more practical, sanitary measures to our system of hog raising, the average number of pigs raised per sow, which is now about 5, should be increased to 7. Where litters raised under unsanitary conditions are now made to weigh 1000 pounds at seven months of age, litters should be produced which should weigh from 1600 pounds to a ton at seven months of age. Less brood sows would necessarily be maintained and handled with less equipment. More pounds of saleable pork would be produced from every 100 pounds of feed because of the healthy growing condition of the pigs and more profit would be realized.

In carrying to completion a practical system of sanitation, the four cardinal requirements given below should always be kept in mind:

1. Provide a sanitary farrowing pen bedded with clean bedding.

2. Clean the sows thoroughly.

3. Provide a clean pasture where pigs are to be kept until at least four months of age.

4. Plow all permanent hog lots once a year, and seed down to such crops as rye, sudan grass, rape, and cane.

A pen is sanitary only when all litter and dirt has been removed, the floor and the walls for a foot or so from the floor have been carefully washed with scalding water and lye, and a disinfectant (liquor cresolis solution) has been applied to walls and to posts which the water did not reach. Liquor cresolis may be procured at almost any drug store. 30 parts water should be used to 1 part of liquor cresolis. It is superior to most of the disinfectants ordinarily used. The disinfectant will probably reach some corners and surfaces which the water will fail to reach. This makes a pen safer for the young pigs.

In the case of dirt floors, the only method of cleaning is to wash the walls thoroughly with boiling water and lye and to then remove the top six inches of dirt from the pen and replace it with clean dirt that has not come into contact with hogs in any way. After the clean dirt is placed in the pen, the thorough disinfecting of walls, troughs, etc., with a cresolis solution will make the pen more safe. This sort of a pen is none too safe at the best.

The most desirable bedding to use is fine wheat straw from a clean straw stack where no hogs have been bedding or rooting. If found necessary to use other bedding, extreme care should be taken to select some which has had no hogs around it. A pen should be bedded lightly at farrowing time and for a few days following. Bedding should be kept clean by being changed often.

With the exception of her udder, a sow can usually be cleaned with a stiff brush. The udder should always be washed with a strong solution of soap water. A chunk of dirt or filth the size of a pea if from a contaminated place, could easily contain sufficient worm eggs and disease germs to stunt a pig if he swallowed it. The importance of removing all dirt and dust from a sow is therefore very evident. It would be defeating the purpose to put a dusty, muddy-footed sow into a pen which has been cleaned with great care.

The easiest and best way to move the sow and pigs from the farrowing pen to a clean field is to haul them. A clean hog crate on a sled will do very well for this purpose. To say the least, driving them on foot is a very dangerous practice. Take no chances on letting the young pigs pick up contaminated soil. They are very apt to do so if driven thru the old hog lots. A little carelessness at this stage might easily mean the partial or entire failure of the whole system. In some cases it will be possible to carry out this system without the use of individual hog houses in the clean pasture. The only condition under which this would be possible would be when the hog house door could be connected by a lane with the clean pasture. It would not be advisable to use this system unless the ground

contained in this lane has had few or no hogs on it, since it has been plowed and a crop grown on it. A contaminated run-way to and from a clean pasture would serve no better than would a contaminated pasture. The fact that pigs are not readily susceptible to the round worm or the filth-born diseases after they are about four months of age makes it fairly safe to allow them to return to the old lots at this age. Even at four months of age trouble may be expected with at least a part of the pigs if they are allowed too much freedom around the contaminated hog lots. The safest plan is to keep them in the field until they are five months old. When they are allowed to return to the old hog lots, they should, if possible, be fed on a clean concrete feeding floor. A dry, well-ventilated shed, bedded with plenty of clean, dry straw will aid greatly in keeping them healthy.

The system of raising large numbers of hogs on small areas of ground is a dangerous one unless a definite system of sanitation is followed out. The practice of using small movable hog houses in conjunction with the central farrowing house must become more general. Many hog raisers who follow the practice of having the pigs come late in the spring can well afford to use nothing but well-built, inexpensive, movable houses. It is possible to save pigs in small houses even during extremely cold weather.

When small hog pastures are widely separated from the central water supply, some means must be provided for furnishing a plentiful supply of clean water. It is a dangerous practice to depend on a running stream which is often contaminated from other hog lots.

1. A $\frac{3}{4}$" pipe may be connected to the water supply and laid on the surface of the ground or in a furrow. This pipe can be changed as conditions require.

2. Shallow wells may be used in some sections of the state.

3. Barrels or tanks mounted on sleds or in a wagon box are used by some farmers. Others are using old thresher tanks.

No safe system of sanitation can be carried on where it is necessary that pigs under four months of age be allowed to run in hog lots where hogs have been since the lots were plowed and a crop grown there. Where conditions make it impossible to use other ground than old lots for raising pigs, some good will be derived from thoroughly plowing all lots twice a year. This only serves to mix the worm eggs and diseased germs with a greater volume of soil, thereby reducing the possibilities of young pigs coming into contact with them. It must be remembered in this connection that worm eggs and some infectious germs live in ordinary soil for as long as three to five years. Growing a crop on soil seems to hasten their destruction to some extent.

Some suggested rotations and field arrangements to furnish <u>frequent changes</u> in hog pastures are given in the following diagrams. These are only suggestive and may be changed as to the size of fields and the kind of crops to suit local conditions.

In working out these plans it is kept in mind that pigs are to be kept on clean pastures until they are at least four months old and that each pasture is not to be used for hogs more frequently than every third year and preferably not more often than every fourth year.

The average eastern Nebraska farmer will probably prefer alfalfa for hog pasture. Fig. I shows how an alfalfa field may be divided into 3 or more fields. The fences dividing the pasture may be of a temporary sort and may be removed when bordering fields are to be cut for hay, thereby making larger fields.

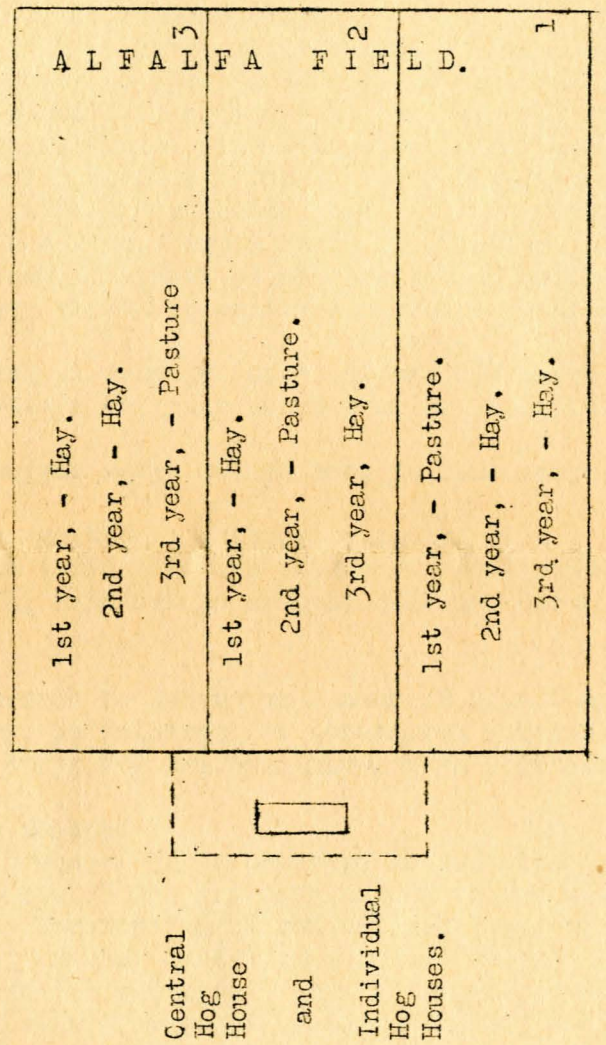

Figure I.

Fig. II shows an arrangement of five fields which may be used especially where the practice is followed of "hogging down" more or less corn. In this plan the alfalfa may be rotated over all five fields or kept on three of the fields as just described in Fig. I, and the two fields added used for corn to be "hogged off". In case the alfalfa is rotated over all five fields it is left in each field for three years, being pastured the third year. While this is a shorter rotation than is recommended for ordinary purposes the advantage of leaving the alfalfa for but three years, followed by two years of corn, is that the soil may be kept free of infection of hog diseases and parasites.

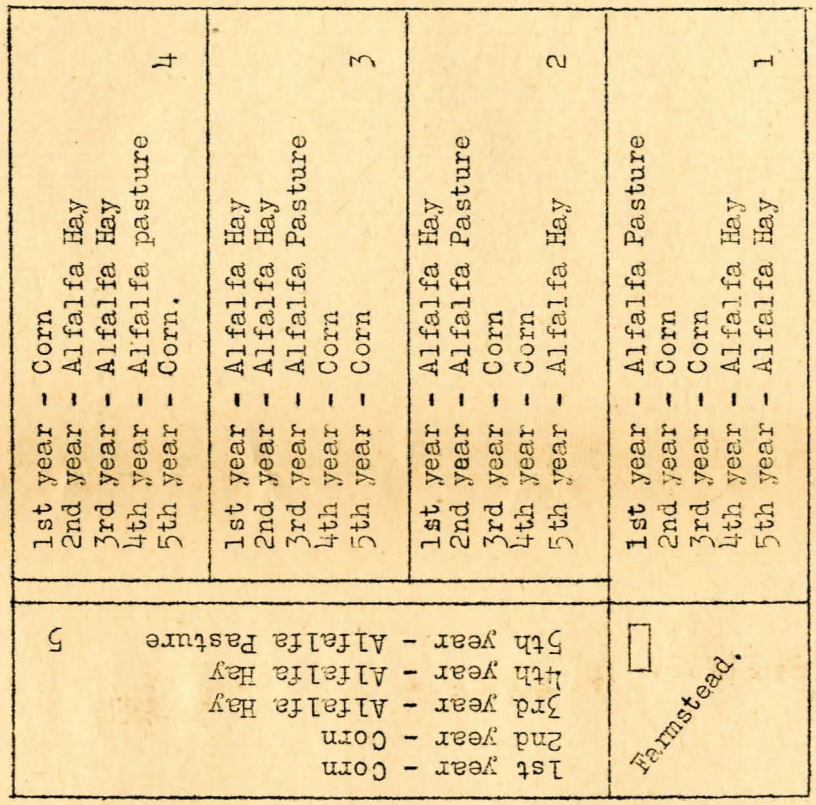

Figure II.

Where there is no alfalfa near enough to the buildings to be used for hog pasture, then sudan grass, winter rye, rape or sweet clover may be used for the two coming seasons. Alfalfa seeded this year on three of the five fields would be available for pasture the third season. It would be necessary to seed one field to alfalfa each season where it is left for but three years.

Where alfalfa will not do well, sudan grass, rye, sweet clover, or rape can be used as suggested in Fig. III.

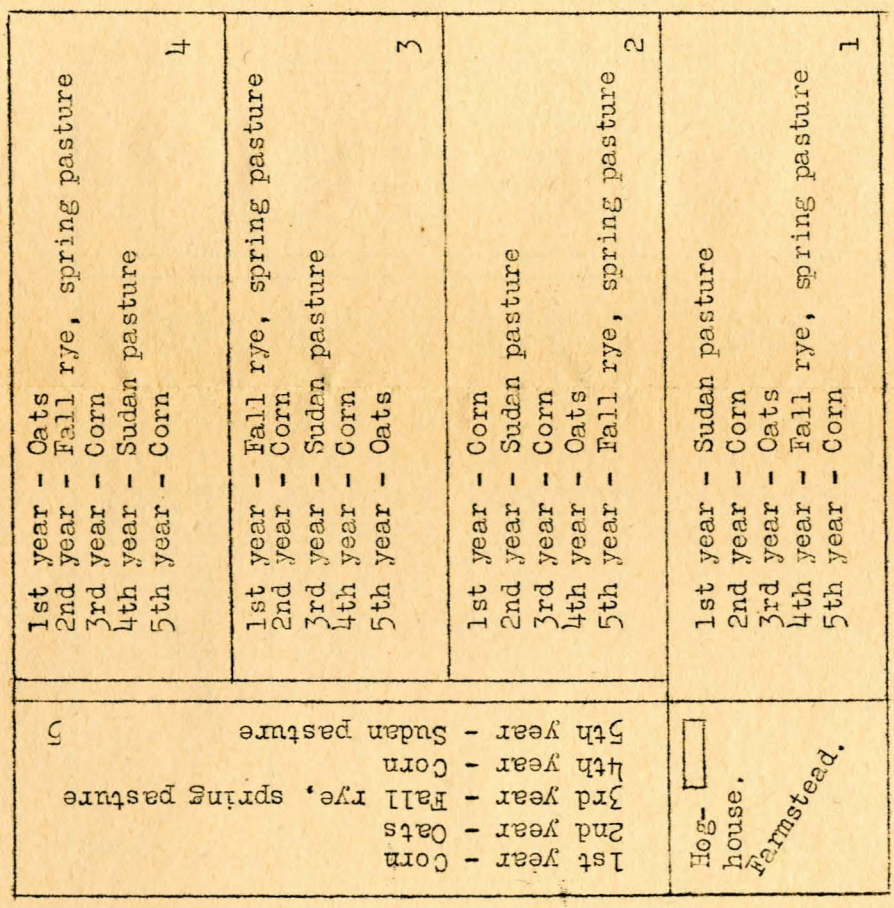

Figure III.

In the drier sections of the state the following short three year rotation may be used advantageously.

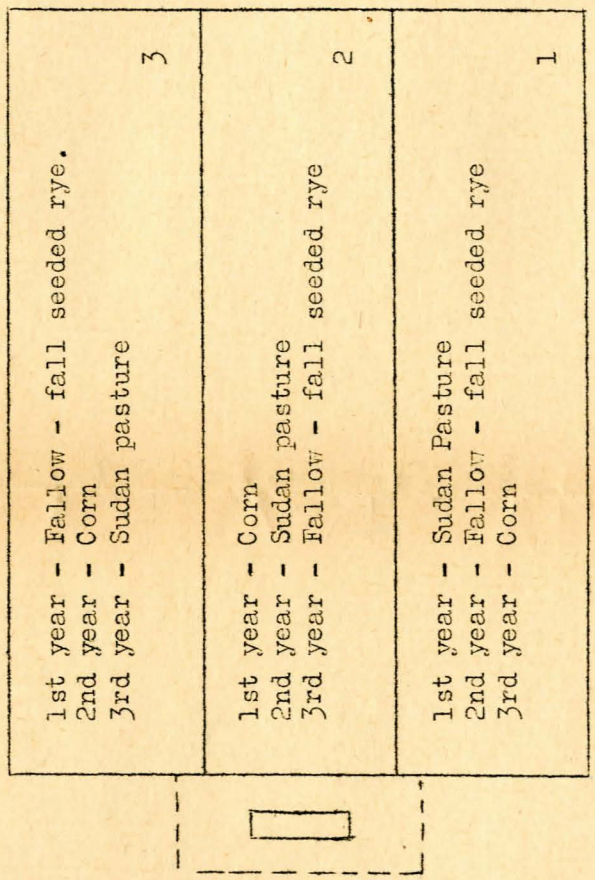

Figure IV.

In this plan fall rye is seeded for late fall and more particularly for early spring pasture, before the sudan grass is ready. It is then plowed or listed and put to corn in late May. A fourth field may be added to this plan, it being put to corn thereby allowing the rye to be cut for grain if desired.

Bulletins which give further details as to varieties, methods of seeding and other information regarding crops for pasture and hay may be secured free from the County Extension Agents or the Agricultural College, Lincoln.

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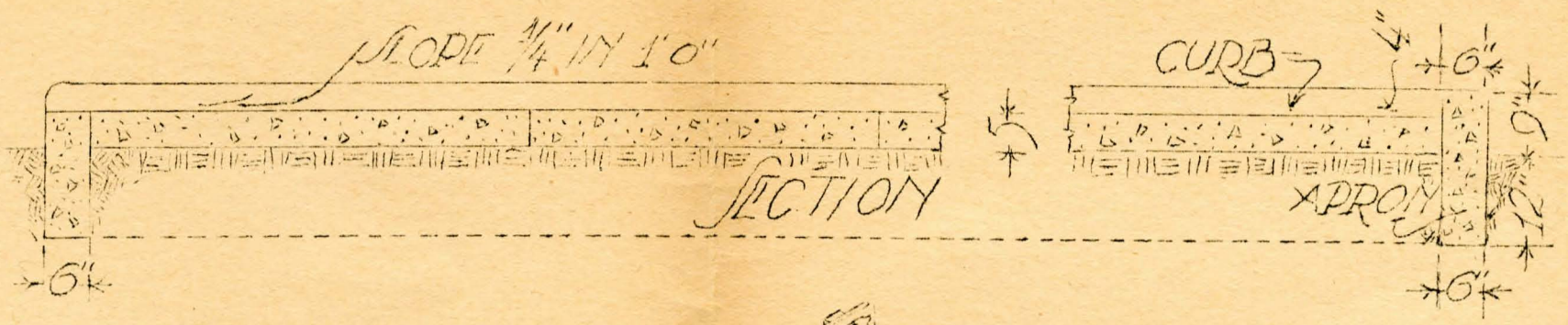
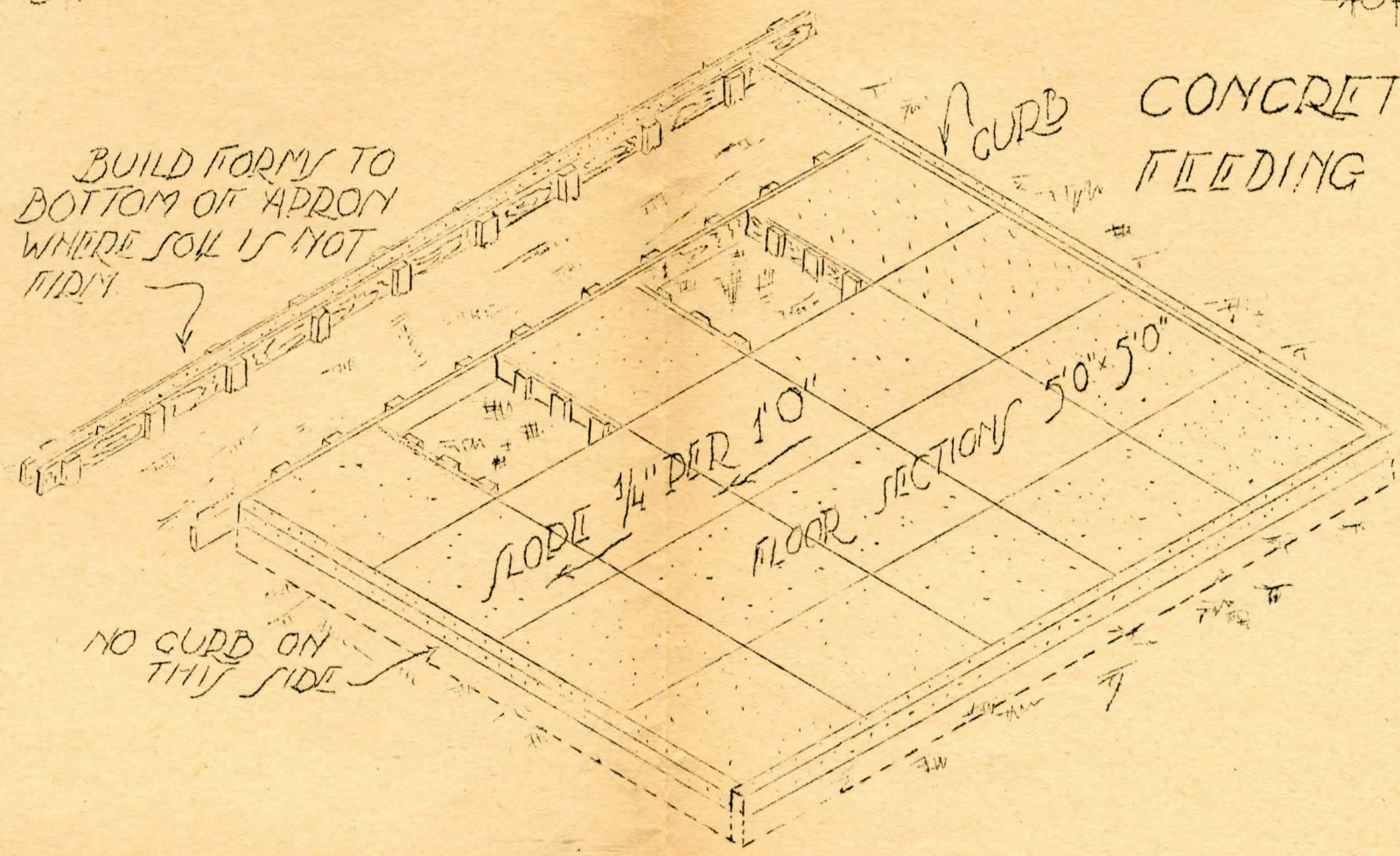
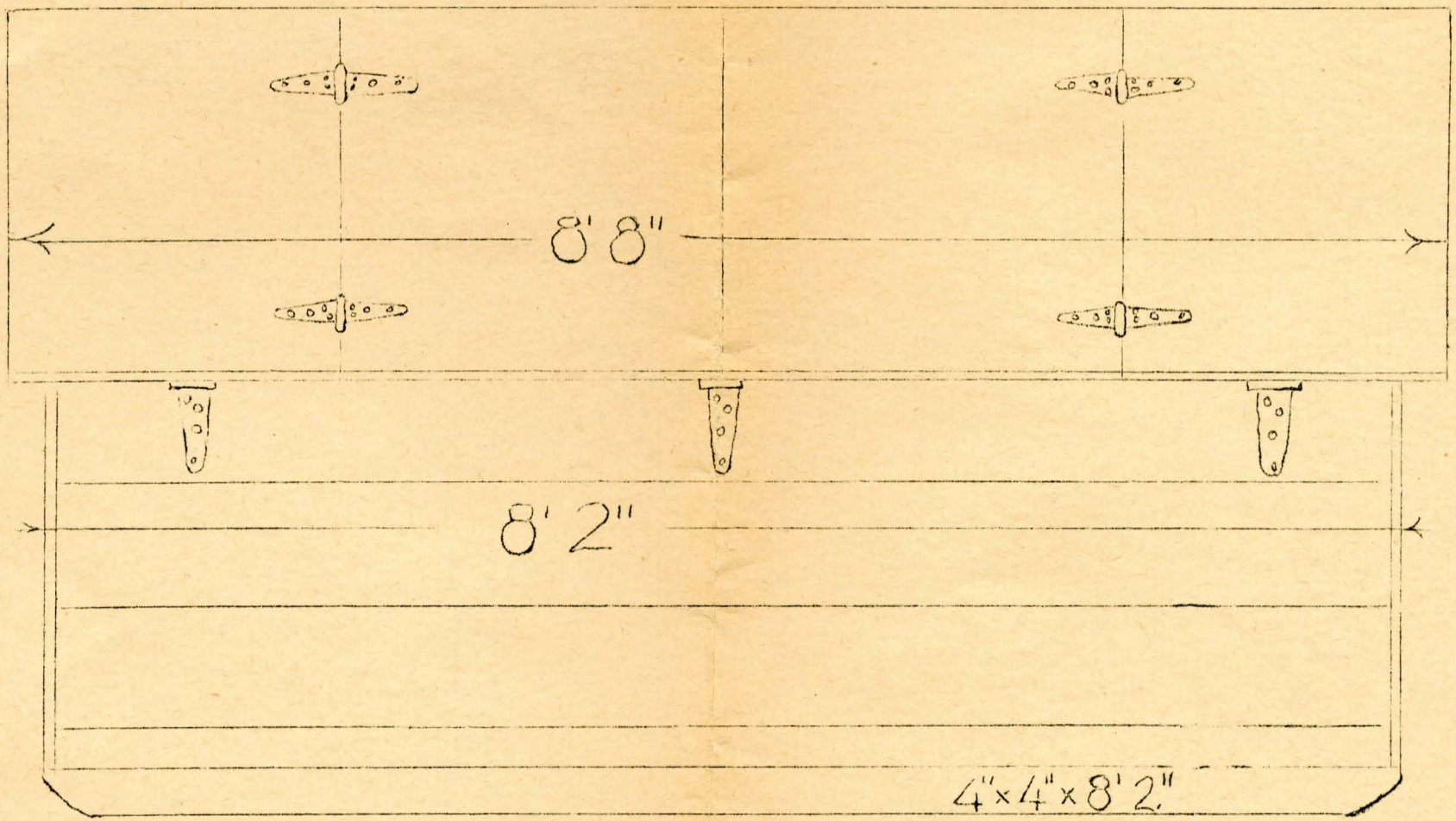
INDIVIDUAL HOG HOUSE

20.72-57



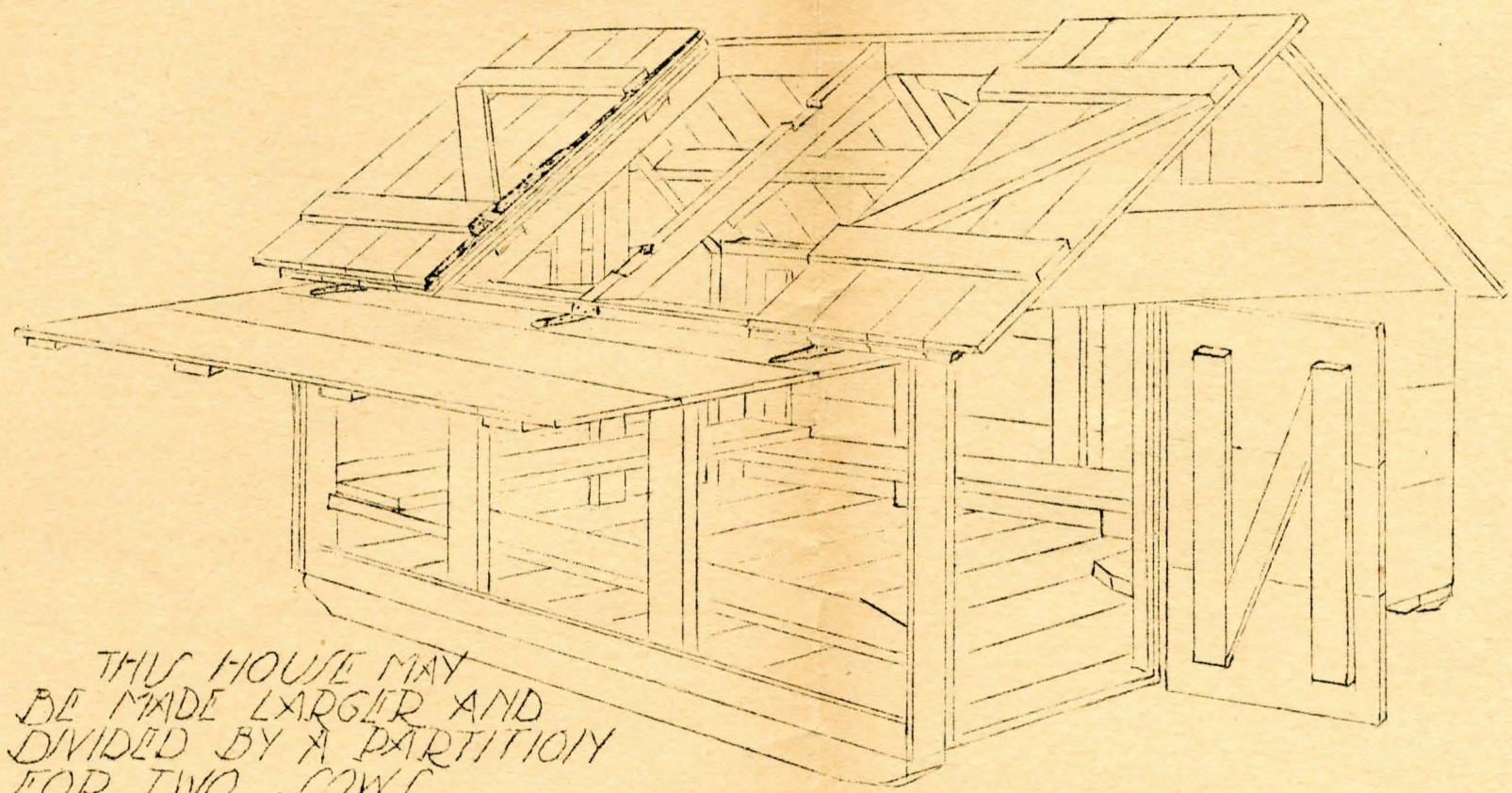


CONCRETE FEEDING FLOOR



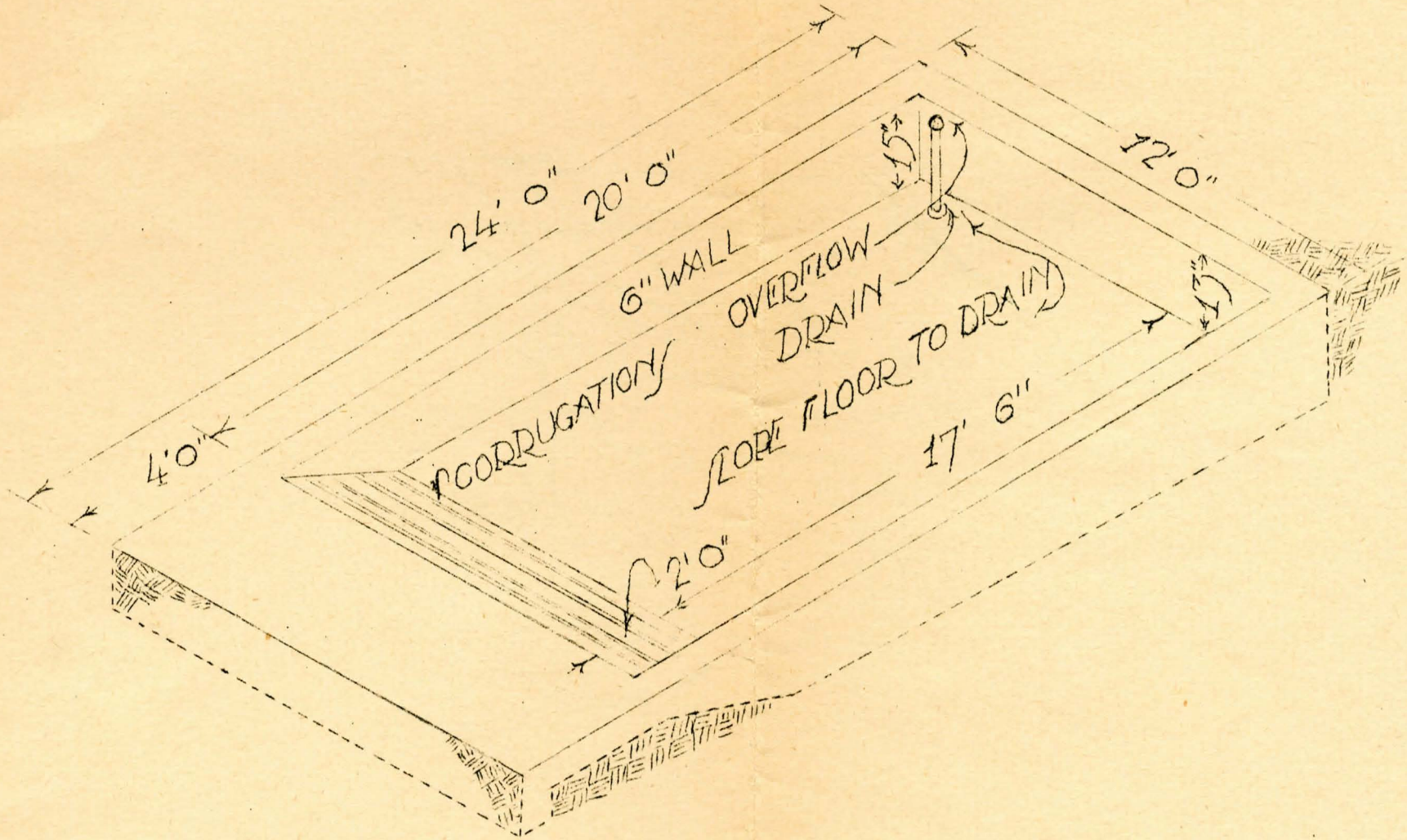
SOUTH ELEVATION

NEBRASKA 10.72-49 HOG HOUSE

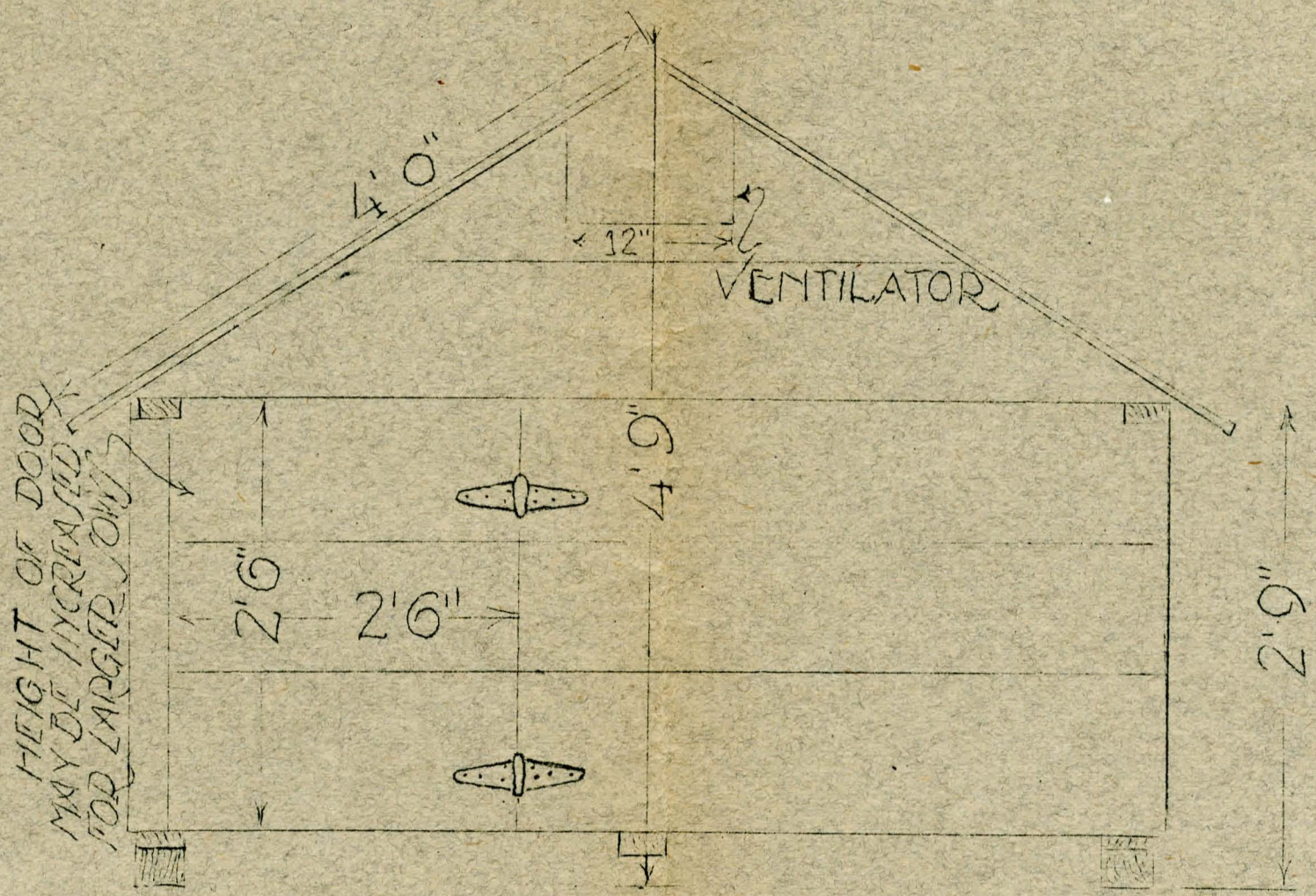


THIS HOUSE MAY
BE MADE LARGER AND
DIVIDED BY A PARTITION
FOR TWO SOWS

NEBRASKA HOG HOUSE NO. 10.72-49



CONCRETE HOG WALLOW



EAST ELEVATION

NEBRASKA 10.72-49 HOG HOUSE