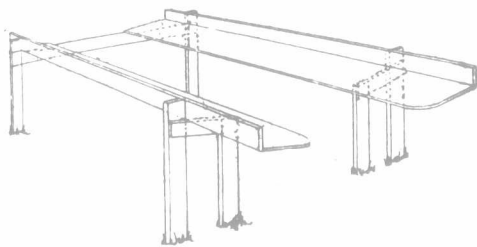


### A Service Stall.

Some time ago a subscriber inquired if we could publish instructions for the building of a breeding stall, or stocks, to be used in breeding heifers when a heavy sire is in service. We reproduce in this issue a description and sketch of a device for the purpose, which was recently published in the Jersey Bulletin, and which appears to be practicable and inexpensive. The specifications are as follows:



THE WARNER SERVICE STALL.

In building a stall, one should select a level space, set two posts 36 inches apart; to the posts spike a piece of 6-inch plank, the top edge of which should be about 28 inches above the ground. Four feet six inches back of these posts, set four more—two on either side, as shown in drawing. The short or inside posts should be about 16 inches high. Spike a piece of 2 x 4 from the top of the short post to the longer post by its side—slanting the 2 x 4 a little toward the inside of space where the cow is to stand. The space between the short posts should be 30 inches.

Place a 9-inch plank flatways, the front end resting on the stringer nailed across the front posts, the back end resting on the 2 x 4 that is nailed on the hind posts. This plank should project over the hind post about six inches, also about three inches over the top of the posts toward the inside. Nail fast. Then place an 8-inch plank lengthwise, set upon edge inside of the long posts, and nail to same. This is to prevent the bulls' feet from slipping off the outside edge of the plank which his front feet rest on when serving. The space where the cow stands should be 18 inches wide at the front end, and 24 inches at the back end, opposite the hind posts.

We always use this stall when breeding a cow. Its value will become more apparent when using a heavy bull on a small cow or heifer. When we were breeding Holsteins we often used a bull weighing 2,400 pounds to a yearling heifer, without the slightest injury to either.

I neglected to mention that, should a cow after being placed in the stall, stand too high for the bull, a little dirt can be taken out where her hind feet stand, or, if too low, fill in.

### Alfalfa Pasture for Hogs.

One of the most extensive and successful swine-raisers in Kansas tells the author this: "Twenty-five years of pasturing hogs of all ages on alfalfa has proven conclusively to me that a fourth to a half grain ration, while they are on such pasture, will produce greater growth per day than when in dry lots on full feeds of corn. Hogs will maintain a reasonable growth, but not fatten much, on alfalfa pasture alone; I believe it profitable to feed them some grain while running on green alfalfa. If it is desired to full-feed hogs, they will make a rapid fattening growth from increasing the grain ration while on pasture, and with the full grain ration the meat will be nearly as firm as that of hogs kept in a dry lot, where grain alone has been fed. I find no distinction on the market between alfalfa-fed swine and those purely grain-fed, and they sell price and price alike. The general health of the alfalfa-fed hogs is equal to that of those maintained on any other feed, and they are prolific."

As to the amount of pasturage or the number of hogs alfalfa will carry per acre without injury to the crop, the estimates given by farmers vary considerably, depending on the kind of soil, the fertility of the land, and the size of the hogs pastured. The following, however, is a safe estimate, as given by conservative men who have had much experience. Upland of fair average fertility will support from eight to ten head of the 50- to 125-pound hogs. There are fields that have supported 25 head per acre through the season for a number of years, and are still in good condition; and there are other fields that will not furnish pasture for more than five head per acre, but these are extremes. When a field is only used for pasture it is better to divide it into several lots and move the hogs from one to the other as occasion requires. (From Coburn's Swine in America.)

### Bovine Abortion.

The British Board of Agriculture in 1905 appointed a committee of veterinary experts to inquire by means of experimental investigation, or otherwise, into the causes and nature of epizootic abortion in cattle, and to consider what preventive or remedial measures may, with advantage, be adopted with respect to the disease. "The most hopeful line of enquiry," says the interim report of the committee, "seemed to be the

"was tested by giving her enormous doses of virulent exudate, both by the mouth and the vagina, thirty-six days after becoming pregnant and 142 days after immunization, and sixteen days later she received 10 c.c. of a dense emulsion of a virulent exudate into the jugular vein. She was killed, and found free from infection, 122 days after receiving the first infecting dose."

These results with heifers, we are told, "are all the more encouraging when one remembers that not a single negative result followed the intravenous inoculation of unprotected heifers with uterine exudate, and it should be noted also that the tests applied were in point of severity far beyond anything likely to be met with in practice."

The spraying of the external genital organs and hind quarters of cows with disinfected solutions is regarded as useless "so long as the animals remain in an infected byre."

As to the isolation of animals, as soon as they show signs of abortion it is remarked that the necessity for this measure is obvious, and cannot be too much insisted upon. "Isolation of the affected animals, however, must be complete before and after the act to be of any real value." Carbolic acid and other antiseptics are regarded as useless as curative agents, and "as a preventive agent by internal administration we believe carbolic acid to be equally useless."

The irrigation of the genital passages of animals which have aborted with antiseptic solutions is recommended, "but not on the grounds that the injections will disinfect the uterus."

We are of opinion that it will seldom be necessary to continue the injections for more than a month, and that after three months there should be small risk in putting the cow to the bull, provided she is afterwards protected against fresh infection."

It is observed that cows which have aborted should not be sold, except for slaughter, till they have ceased to discharge. The report indicates that cows which have once aborted are, as a rule, less liable to infection during a subsequent pregnancy than if they had not before aborted, though it is known that a considerable number of cows abort twice in succession.

The committee, consider "that on infected premises the animals which have already aborted are to be looked upon as valuable assets for purposes of eradication, much more valuable than new and susceptible animals brought in. We find, however, that a small portion of cows will not hold to the bull for an indefinite period after abortion, and it may be found better to fatten off such animals, unless they are of high value."

The committee speak with caution as to the part which preventive inoculation is likely to play in the battle with abortion. At the same time, the report is hopeful in its tone as to the probable benefit from this direction.



Southdown Shearling Ram.

First and reserve champion, Bath and West of England Show, 1909.

production of immunity by inoculation of large doses of pure culture. One of the great objections to the protective inoculation methods in practice is the number of operations necessary to ensure protection. But, owing to the harmlessness of large quantities of pure cultures of the abortion bacillus when injected into non-pregnant animals, it seemed possible that whatever degree of immunity could be established by a practicable number of small doses might be conveyed by inoculating one large dose." Trials with pure cultures of the bovine abortion bacillus were, therefore, made with ewes and heifers, the animals



Ratcheugh Beauty.

First-prize Shorthorn cow at Royal Show, Gloucester, 1909. Bred and exhibited by Wm. Bell, Alnwick.

being inoculated about 60 to 148 days before becoming pregnant. The results with sheep were so irregular as to be regarded as of little or no practical value, and these trials were discontinued. With heifers the results were more encouraging. Two heifers were inoculated with a rich liquid culture of the bacillus, the one 148 days and the other 106 days, before becoming pregnant. The former heifer, forty days after becoming pregnant, was inoculated intravenously with 10 c.c. of a dense emulsion of virulent uterine exudate, yet when killed 112 days thereafter she was found free from infection. The immunity of the other heifer

intended to be fed to hogs should be cut early. An experiment at the Kansas Station showed that a ton of early-cut and well-cured alfalfa hay, fed with grain, produced 868 pounds of pork, while a ton late cut and poorly cured, fed with grain, produced only 333 pounds. For fattening hogs it is well to feed about one ton of well-cured alfalfa hay with each 250 bushels of grain.—(From Coburn's Swine in America.)

Intending exhibitors of live stock at the fairs will do well to remember that in close competition, condition of hair and hide and good manners count.