

ents have been used in the stable, there can be little loss of liquid manure. The shed may be so constructed that it will serve as an exercise ground for the stock, where they can take exercise in comfort even in the most stormy weather. The manure does not freeze as it does outside, and is therefore more easily drawn to the field in winter, if desired. The manure contains less water than that from outside yards, and consequently requires less labor in drawing. When manure sheds are built so as to allow animals to take exercise in them, loss of the droppings of the animals when out of the stable is prevented. The greatest danger of loss in the manure shed is from excessive fermentation of the manure. The manure, being kept drier than in the open yards, ferments much more readily, and if it is not properly attended to, loses much of its nitrogen. Fermentation is much more active when the manure is loosely piled, so that loss from fermentation is greatest in sheds when the stock do not trample the manure. If the shed is arranged so that the stock thoroughly trample and compact the manure, there is very little danger of loss; but when the shed does not admit of this, it must be cleaned out frequently.

Manure sheds are of numberless patterns, and their arrangement will depend entirely upon the construction of the stables and the requirements of the owner. Convenience, economy, and effectiveness must be considered. Sometimes the manure shed takes the form of a basement below the stables, the floor and walls being cemented. In some cases hogs are fed in this basement, to trample and compact the manure. Such an arrangement is certainly convenient and effective, but the cost of construction will probably prevent its general adoption. Generally speaking, the floor of a manure shed should be water-tight, and somewhat hollowed in the centre. A hard clay bottom covered with a layer of gravel will answer very well. The shed is all the better if set on a low stone foundation cemented on the inside, though one that will answer the purpose may be made by setting posts in the ground and boarding with rough lumber, care being taken to have the floor properly graded. It must be borne in mind, however, that the less care bestowed upon the construction of the manure shed the greater care will be necessary to prevent loss. If excessive heating is observed, or if liquid is seen escaping, it will be necessary to clean out the shed. When the manure is trampled and kept compact by the stock, there is not much danger of excessive heating, but trampling will not prevent the escape of liquid manure if the shed is not properly constructed. In sheds where trampling by stock is not practicable, sometimes the manure is kept from heating by frequent moistening with water. This plan can scarcely be commended. The effect of the water is only temporary, and heating soon commences again, calling for repeated applications. As a result, more water is added than the manure can retain, and the water which escapes from the heap carries with it much valuable plant food. Thus the object of the manure shed is defeated, and keeping the manure in an open yard would have saved, at any rate, the labor of carrying water.

Box Stalls. The practise of fattening cattle loose in box stalls is growing in favor. Whatever may be said of its value so far as the cattle are concerned, it is certainly conducive to the production of first-class manure, provided that the stalls are properly constructed and well bedded. The floor of the box stall or pen should be water-tight, cement being preferable. Sufficient straw should be used to absorb all the liquid, and the trampling of the manure by the animals prevents excessive fermentation. In such stalls practically no waste occurs, and they need not be cleaned out oftener than once in two weeks. If the manure