WASTEFUL MANAGEMENT OF MANURE.

Some idea of this may be gained by analogy. Let us imagine that a farmer keeps three teams of horses, who consume, say two quarters of Oats per week. Let the farmer give one quarter each week to the horses, and dispose of the other quarter as follows:—There may possibly be some ruts in the road leading to and from his farm-yard; let him pour as many as possible of the oats into every one of the horse-holes and ruts of this road, beginning at the gate of the yard, and proceeding to the nearest turnpike-road. There may seem much trouble in all this, but nothing valuable can ever be gained or done without trouble, and this experiment will probably always be conclusive. Some farm-yards are nicely drained, and very frequently the drains run into the horse-pond. Let the farmer insist on one of his laborers (who may possibly have some prejudice against it) pouring a good drill of oats into every drain that leads out of the yard till it arrives at the pond, where he may throw in a bushel or so, and if the drain terminates, as drains sometimes do, on a hard road, let him leave a small heap of oats in every black puddle. When he shall have done this, let him cause some of the oats to be scattered in every direction round his stable, and take every possible precaution so that the birds of the air, the mice and rats of the field, the fishes of the ponds, and the creeping things of the earth, may come in for a share of the oats. The farmer's neighbors may call him mad, but let him not mind this. Ulysses was formerly called mad for sowing salt, but now, many people sow salt who are considered sensible, and even clever. Let the enterprising improver keep perseveringly on with this practice for—say three weeks. On or about this period, the ribs of each of his three teams, when in single harness, will probably form a very respectable representation of a park paling. At this point it is time to pause, and seriously ask himself the question, whether it is wise for a man actually to facilitate the waste and destruction of produce which it has cost him much money to gain, and the economical management of which will produce more money. That which we have imagined it possible for a farmer to do with his horsefood, is not a whit more unwise than the practice of some slovenly farmers with respect to their Manures. What oats are to his horses,—Manure, and especially the liquid and gaseous portions of Manure, are to his fields. Every atom of earth which comes into contact with his dung, preserves for it some of its fertilising virtues, yet he accumulates it in unpaved yards. Every breath of air that passes over it becomes the vehicle for carrying the volatile gases, in which plants delight, from the farmer's dung-yard to everybody else's field; yet he keeps it for a year uncovered with mould. Every drop of rain which falls from the heavens, dissolves some of its most valuable portions, and conveys it away to loss; yet the good man never dreams of sinking a tank, in order to preserve a substance every pound of which, Liebig tells us, will suffice to grow a pound of wheat. Nothing can show more clearly than this national waste, the necessity of men being made acquainted with the laws of Nature, which can never be transgressed with impunity; which combine to ruin every man who regards them not; whilst there is not one law amongst them which, if understood, may not be made the ready and willing instrument of his will—*Maidstone* (*Eng.*) *Gaz.*

IMPORTANCE OF CO-OPERATION BETWEEN THE FARMER AND CHEMIST.—We believe that by far the greatest obstacle to the advancement of scientific agriculture hitherto, has been the want of co-operation between the farmer and the chemist. Each has tried to move forward alone; and we may aptly apply to them the well-known story of the lame and the blind, neither of whom alone could proceed with safety, but when united arm in arm, the defects of each were fully compensated for by the superior advantages of the other. Thus the farmer, from his knowledge of *practice*, is enabled to progress in any given direction; but, from his want of acquaintance with the fundamental *principles* of his art, may be justly considered blind; whereas the chemist, however clearly he may see the end to be attained, makes but a very lame progression, owing to his ignorance of practice. Let the two but consent to become mutually dependent, and proceeding arm in arm, the assured step of the well-practiced farmer will be guided in the right way by the clear-sighted knowledge of the enlightened chemist.—*Dr. Madden.*

EWES AND LAMBS.—A difficulty is sometimes experienced in making ewes own their lambs, and oftener, perhaps, when cases of twin lambs occur than at any other time. Those who desire to rear all their lambs may find a benefit in sprinkling a little fine salt over the disowned ones. This will usually attract the mother, and when once the operation of licking has been performed, there is seldom any danger of desertion. A friend assures us he has practiced this method with decided success, and no injury to the lambs may be apprehended from the application. Sheep, when about to lamb, should be moved and disturbed as little as possible, as all such disturbances, especially with young or wild ewes, greatly increase the probability of their forsaking their young.—*Ayrshire* (*Eng.*) *Agriculturist.*

PREPARING HOT-BEDS.—The *Western Farmer and Gardener* gives the following directions for the preparation and management of hot-beds.

"The situation should be on the southern side of a board fence or building. Take out the earth to the depth of a foot, a foot wider than the frame, and if in clay, where water is likely to stand, cut a drain from it. Then with two loads of hot unrotted horse manure, mixed, when it can be done, with leaves, corn-husks, or any such substances as ferment more slowly, it may be filled in, beating it a little with the back of a fork, but never treading it, as it otherwise will settle unequally. Put on the frame and the glass for a day or two, covering them up with some matting or cloth at night, to start the fermentation. Then put on about six inches of good fine earth, and after letting this stand a day or two, till the heat begins to rise, sow the seeds in shallow drills, or broadcast. To those who have never seen a hot-bed prepared, it will not be amiss to say, that the frame is the four sides of a box, of a foot in height on the lower side, and a foot and three inches on the upper, upon which the glazed sash rests at a slight inclination, to carry off the water; the sashes may be of any size, but the most convenient is five feet by four.

After Management.—The ground, until the seeds have started, requires to be kept well moistened, and the frames mostly closed, but if the heat be too great, the seeds may rot: from 50 to 60 deg. Fahrenheit will be the heat at which the bed should range. After the plants are up, then open the sashes in every pleasant and mild day; at first only a few inches at a time, to let off the moisture, which might otherwise rot the plants, and to make them grow strong and healthy. If kept under the glass with great heat and moisture, they grow weak and spindling; they will often require