VEGETABLE MANURES.

The principal vegetable substances employed as manure are straw of all kinds, leaves, saw-dust, bran, oil-cake, sea-weed, and green manures, or crops which are merely sown to be ploughed in, and thus afford food to a second crop, of some more valuable plant.

All these manures when mixed with soil slowly decay, and yield carbonic acid and small quantities of saline and earthly matters. They are most advantageously used when employed in combination with some kind of animal manure; this is the case in farm-yard manure. Straw alone decays but slowly, but when mixed with the dung and urine of cattle it soon begins to change, and in a short time the whole is brought into a state of decomposition.

In this case a sort of putrid fermentation is caused; the animal manure decomposes rapidly, and causes a similar change to take place in the vegetable substances with which it is mixed; decomposition proceeds rapidly, heat is evolved, and if the bulk of the mixture is large, this action becomes so energetic that the value of the manure is seriously injured by the high temperature to which it thus exposed

The decay of vegetable manures may also be facilitated by the addition of lime; for the objection which applies to the mixture of lime with animal manures is not applicable to the ordinary vegetable manures. The latter for the most part contain but little nitrogen, their value principally depending on their mechanical action, and on the formation of carbonic acid.

Vegetable manures decay more or less rapidly, in proportion to the quantity of nitrogen which they contain; green manures contain a notable quantity of gluten and albumen, and accordingly decompose rapidly, whilst sawdust, which consists principally of woody fibre, and contains hardly any nitrogen, decomposes slowly. Sawdust is therefore a most excellent substance to mix with the excrement of animals, and other strong animal manures.

Wood sawdust is valuable as manure in proportion to the facility with which it decomposes, and the inorganic matters which it contains; that obtained from young trees decomposes with more facility than the sawdust of old wood. The wood of those trees which contain much resin decays less rapidly than other woods, and is therefore not so valuable as a constituent of mixed manures. Those woods which when burnt yield a large quantity of ashes rich in alkaline salts, are useful additions in the state of sawdust to manures rich in ammonia.—*Rural Chemistry.*

How to prevent the Burning of Chimneys. —Fires in chimneys in France have recently been prevented by placing three frames of wire work one foot above each other, near the base of the chimney; no flame will pass them.

SCHENCK'S PATENT METHOD OF WATERING FLAX.

Dr. Hodges said, that, by the kindness of the patentee, Mr. Schenck, he had been several times allowed to inspect all the operations of watering flax, according to his new method, and had also made some experiments in Mr. Schenck's establishment. He believed the method proposed had received the warm approval of several extensive flax-growers, both in this country and England. He had no doubt that the method was an immense improvement upon the uncertain plan of the farmer, and it merely remained for the spinner to ascertain that the quality of the fibre was not injured. He was informed that some of the first merchants in Belfast had stated, that its strength was not impaired. He directed the attention of the meeting to two samples of flax, both of which had been grown in the same field; one had been treated according to Mr. Schenck's method, while the other had been watered in the old manner, the same water being used in both cases. The sample treated in the old plan was much inferior to the other, the yield being 20lbs. to the 112lbs., and spinning only 96lbs., while Mr. Schenck's flax gave 24lbs. to the 112lbs. of straw, and would spin on an average 101lbs. The samples exhibited were hackled and sorted by Re shaw, of Manchester. The following is Mr. Schenck's account of the process:—

"The improvement of the new rotting process comprises the application of chemical means, governed in their operation by mechanical arrangement, whereby the glutinous matter which connects the fibres together, and holds them to the stem, is dissolved. This is effected in a short time, at a small cost, and at all seasons of the year, without loss of the useful parts, by putrefaction on the one hand, or by an incomplete separation of the fibre from the woody matter, and also without any injury to the natural strength.

"This process is accomplished by placing the flax in vats, constructed for the purpose, which may be of any convenient size, but should be proportioned to about 50 feet in length to six feet wide, and never exceed four feet in height. They may be built of wood, or brick cemented. Along the bottom of the vat are placed cast-iron pipes, commencing at one end, and returning by a bend at the other, forming two parallel lines. These pipes are connected at one end with a steam-boiler, and are laid with a gradual slope, to allow the water of condensation to run off at the other or open end.

"Above these pipes is a wooden platform, perforated with small holes, to allow a free circulation of water. Upon the platform the flax is placed, in nearly a perpendicular position, with the roots down; above the flax is placed a frame work of loose pieces, which are placed across the vats, with the ends confined under a bracket, near the top of the vat, for the purpose of keeping the