

gether into a small hole, as is too often the case. The soil in which they are planted, should be pulverized as finely as possible. Until after fruiting is over; the runners should be kept back, which is best effected by pinching them off, and afterwards unless plants are required for forming new beds, the runners should be cut off frequently and not allowed to cover the ground. This promotes the growth of the plant, preserves its vigor, and improves its power of fruitfulness in the succeeding year. They will yield a sparse crop only, the first season after transplanting, but they will be in full bearing and productiveness the second year.

The most experienced and most extensive cultivators are agreed in the opinion, that the use of stable manure, as a fertilizer of the soil, is more injurious than beneficial in the culture of the strawberry. It tends to produce too great luxuriance of growth in the *plant*, causing it to throw out numerous runners, and thereby diminishing its fruitfulness. The object of deep cultivation is to enable the roots to penetrate the earth in quest of moisture without which the plant cannot thrive. Instances are given where the roots have been traced to a depth of four feet. It is also found that by deep cultivation the size of the fruit is greatly improved—in fact large fruit cannot be obtained without it, but of course when the soil is naturally of a great depth and of sufficient fertility the labour of trenching will be unnecessary. A chemical analysis of the berry has shown that it is composed principally of potash, lime and carbonic acid, these three elements furnishing about 70 per cent of the substance of the fruit. It is with the view of producing a supply of those essential elements, where they do not already exist in sufficient quantity in the soil, that the dressing of ashes, lime, &c., is recommended. If the surface soil is not considered rich enough in itself, its condition may be best improved by a compost of swamp muck, decayed leaves, saw dust and sods, *but no animal manure should be used*. In summing up his advice for the treatment of the plant, Mr. Peabody, an eminent horticulturist of Georgia, and the originator of the variety which bears his name, says: "Let the cultivators remember the four grand requisites for a profitable strawberry bed, viz: deep cultivation, vegetable manures, shade to the ground (the covering of straw or newly mown grass), and water, water, water."

AMATEUR.

Port Hope, 16th April, 1860.

## Scientific.

"HORSE-POWER" AS A MEASURE OF FORCE.—The phrase or term "horse-power" is continually occurring whenever there is occasion to speak or write of the force of steam-engines. It is met with almost daily in the reading of newspapers, and of books or periodicals relating to science and art. Is there one reader in ten who understands what is meant by this term, or who attaches any accurate idea of the amount of power intended to this oft-recurring phraseology? We very much doubt it, and think, therefore, that a brief explanation of this term, gleaned from Encyclopedias and scientific works, may be both interesting and useful to the generality of ordinary readers. The term "horse-power," then, is used as the unit of force in the description of steam-engines. Instead of saying that an engine has a power of lifting or propelling so many pounds, it is said to be of so much "horse-power." The power exerted by a horse is taken to be equal to the pressure or lift of 33,000 lbs., at the rate of one foot per minute, as this has been found to be about the mean of a good many observations and experiments. It has been found, for example, that a pair of horses will draw a plow along with an average pull of 300 lbs., as shown by a dynamometer like common spring steelyards, at an average rate of  $2\frac{1}{2}$  miles per hour, or 220 ft. per minute. Now this is the same as if those 300 lbs. were pulled over a pulley, or lifted that height in that time; and 300 lbs. lifted 220 feet per minute, is just the same as 66,000 lbs. lifted one foot high per minute. The half of this performance of a pair of horses gives us 33,000 lbs. as the force of a single horse, and with this meaning it is used by engineers.—*Country Gentleman*.

## Veterinary.

TREATMENT OF SPAVIN.—I have a horse that has a bone spavin. Is there any cure for it that you are aware of? I am advised by some to let it alone—by others to fire it, and do not know what course I better take.

L.

Confirmed spavin is probably never radically cured. Firing and blistering are the old remedies, and sometimes produce apparent relief, but they are now discarded by careful practitioners. Dr. Dadd recommends rest during the inflammatory stage, and the application of cooling lotions to the parts. He uses a mixture of 4 ounces of muriatic acid, and six ounces of tincture