

should have, and the amount of work it is expected to accomplish. The tines rock on the frame, so that the points, when working, are depressed, and the hinder ones slightly raised. The wheels are steered by the ploughman, who rides on the implement, alternately at each end, according to the direction in which he is proceeding. When a stoppage occurs, or should occur, either from the soil being extra hard or foul, the steerer can stop it instantly by giving a signal to the man attending the engine; it can then be drawn back and again driven at full speed. The "porters" upon which the wire rope runs in the line of the soil being turned up—or in other words, "the porters," which require constant shifting as the cultivator does its work—act very efficiently, and can be attended to by the most inexperienced boy. The anchors at each end of the line traversed by the implement require, of course, to be shifted each journey, and this too, is easily accomplished, and without more than a momentary stoppage. As a cultivator, the implement performs its work in first-rate style. The soil is as effectually as it is rapidly torn up and turned over, at a depth which can be varied according to circumstances from six to twelve inches. The whole apparatus—engine (which is a portable one, and of 10 horse-power), "porters," and implement—can be attended to by four men and two boys, and, eight acres per day can be easily accomplished, at a cost we believe, of 15s. per acre if the soil is once turned over, and 25s. per acre if twice or cross cultivated. From these figures farmers can make their own calculations as to the economy of the implement, and as to its efficiency they will, we think, be satisfied the moment they see it at work. As will be seen by an advertisement in another column, Mr. Taylor intends making Aylsbury his head quarters, so that the farmers of the Vale will have the opportunity of doing what Mr. Fowler is doing—practically testing the cheapness of steam cultivation.

The Autumnal Fallow.

In the subjoined article from the *Mark Lane Express*, written by a "Practical Farmer," will be found much that is applicable to our condition and wants in Canada. We have now, gang ploughs, horse-hoes, scarifiers, &c., well adapted for fall culture, opening up the soil to the influences of air, light and moisture, and for eradicating weeds. The latter is an object of paramount importance, as is well known to every practical agriculturist. The practice of autumn cultivation in some form or other has been steadily gaining ground at home for many years,

and may now be said to form a distinctive feature of British Agriculture:—

Amongst the many modern improvements agricultural practice none has received more favor or become more general than autumn cultivation. Wherever we travel at the close of September or the beginning of October, in this country, we find the practice universally adopted, and being carried out in a variety of modes. In ordinary practice, the skeleton plough, or broadshare plough, and even the common plough, are brought into requisition; but the more modern course is to resort to the various cultivators and scarifiers lately introduced—the manufactures of which are to numerous to mention: but the implements which have received most patronage are the "Bentall," the "Biddell," the "Clay," the "Carson," the "Coleman," the "Howards," the "Ransomes"—scarifiers and cultivators named after their respective makers—besides others of considerable note, and also many of local construction—in fact, any and every implement competent to break or "smash" up the soil.

The great benefits derived from autumn cultivation are mainly the aeration of the soil, the eradication of root-weeds, the promoting of the growth of all annuals, and their subsequent destruction, the injury done to, and almost annihilation of the insect tribe, and the aid thus given to more speedy subsoil drainage—all very important, and demanding the prompt attention of every farmer. The aeration of the soil at this precise period is of much greater importance than is generally attributed to it. It is at this season that all vegetation has pretty nearly arrived at its full growth. The cereals, of course, are all ripe; and the decay of straw and stubble is very great. The green crops are also at their full growth, and decay in leaf is rapidly proceeding. The potato crops, cloverleys, &c., are bare of leaf also. The foliage of the trees and hedgerows is all giving way; the ditches and ponds give out their odours, unmistakably manifesting the decay of vegetable matter; the dews and fogs of autumn are many and heavy. All this combined must produce, eliminate, and diffuse a vast amount of vegetable effluvia, with which the atmosphere is, in my humble opinion, heavily charged, and which, to unscientific observers, is sufficiently proved by the malarial which commonly prevail at this season. Now the great thing is to break up, "smash up," and prepare the soil as minutely as possible, for the reception of these fertilizing vapours, this floating effluvia. If it is not thus broken up, the deposit by the night-dew is speedily taken up by the day's sun, and no benefit arises; it cannot penetrate the hardened soil. But if it is properly prepared, these fertilising influences are received, and at once appropriated by the soil; and the advantage of an autumnal fallow, and in a great measure of a real or dead fallow, is ex-