Weeds, if the fallow is properly conducted, are destroyed, the land is reduced to a fine state of tilth, and to a proper condition, mechanically, to receive the seed, and it affords a convenient opportunity of applying the barn-yard manure to the fields. In regard to the influence of the fallow upon the fertility of the land itself, the former popular idea, that after some years' cropping, the soil, like a weary man, or animal, required rest, and received strength by being allowed to lie idle for a season, has pretty nearly exploded, and the generally received opinion now is, that fallowing is beneficial from the superior opportunities it affords of reducing the soil to a fine state of cultivation mechanically, of eradicating weeds, applying the manure, and of getting the seed into the ground in good season. And verging a little upon theoretical ground, it is also believed that the particles of the soil being more thoroughly exposed to the influence of the rains and the atmosphere, become thereby more completely decomposed and disintegrated, that thus what is in part a chemical, and in part a mechanical, amelioration takes place, and that certain chemical or mineral properties are by this process of disintegration, set free from the particles of earth in which they had been locked up, and are made available for future use. There is no actual addition or recruiting of the elements of fertility, received by the soil, except what are administered in the shape of manure, from lying fallow, but a further draft is made upon those which were already present, and they remain in the soil in a condition to be used by the next growing crop. On this point Liebeg says:

"Among the effects produced by time, particularly in the case of fallow, or that period during which a field remains at rest, science recognizes certain chemical actions, which proceed uninterruptedly by means of the influence exercised by the constituents of the atmosphere upon the surface of the solid crust of the earth. By the action of the carbonic acid and oxygen in the air, aided by moisture and by rain-water, the power of dissolving in water is given to certain constituents of rock, or of their debris, from which arable land is formed: these ingredients, in consequence of their solubility, become separated from the insoluble constituents."

"These chemical actions serve to explain the effects produced by the hand of time, which destroys human structures, and converts gradually the hardest rocks into dust. It is by their influence that certain ingredients of arable land become fit for assimilation by plants; and the object of the mechanical operations of the farm is to obtain this result. Their action consists in accelerating the weathering or disintegration of the soil, and thus offers to a new generation of plants their necessary mineral constituents, in a form fit for reception. The celerity of the disintegration of a solid body must be in proportion to its surface; for the more points which we expose to the action of the destructive agencies, the more rapidly will their effects be produced."

In regard to the *modus operandi* of conducting the fallow, it is pretty generally conceded that it is preferable, especially if the soil be of a tenacious description, or infested with weeds of a troublesome character, to give the first ploughing in Autumn. By this course the soil will receive the benefit of the disintegrating influences of the winter atmosphere. The field should also be turned up with a deep furrow, in order to bring a portion of the subsoil to the air; and it is advisable, in the Fall, to plough into narrow ridges, deepening the dead-furrows, and opening cross-drains through all the low portions in much the same manner as if the field were in crop,—for if a portion of the field lies under water during Winter and Spring, much of the benefit of the Autumn ploughing will be lost, and operations will be retarded in Spring.

About the beginning of June, or as soon as the other work of the farm and the state of the ground will permit, it will be time to give the field the second ploughing. By giving this ploughing in good season, before the weeds have made much progress, the growth of the latter will be pretty well checked; and by proper subsequent cultivation, that desirable result, a clean field, will be obtained. But in order to do the work effectually, care must be given to the cultivation, that the implements are in proper order, the work not done in a slovenly manner, and no space containing the roots of weeds left unturned between the furrows.

It is usual to apply the manure with either the second or third ploughing; and in regard to this, it is very desirable that some more economical mode than that generally adopted, should come into use. The method in most common use in Canada is to throw the manure into large heaps in the barn-yards in Spring, where it undergoes a violent heat, and where it remains till it is convenient to carry it to the field, when it is drawn out and distributed in small heaps over the surface of the field, where it again remains till it is