

ance is placed; when you back up your horse, the bucket will of course descend for a fresh supply, and a few moments of work for the horse and none for the driver, will furnish a two horse load. The construction of manure carriage, and distribution of manure on the land, will be the subject of a future article.

In constructing the cistern, if done by an amateur, read carefully the article on water cisterns in a future number, and the intelligent farmer will find little or no difficulty. Should wet weather and consequent filling up of the cistern be found troublesome, when no manure exists to yield its virtues, the cistern can remain full, or a drain outside and spent communicating with it will carry the watery contents away, until manure time commences, when the pump can be made to empty the water in fifteen to thirty minutes.

Many farmers in Europe, and among them, I believe, Mr. Mechi, of Tiptree Hall, England, raise the water in the tank or cistern, and by again passing it through the mass of manure lying all round the yard, more thoroughly and entirely leach out all such constituents as water will dissolve, and which are found to be much more certainly preserved when combined with water than when subject to evaporation, and so passing away into the air. C.

Pioneer Agricultural Societies.

To the Editor.

Sir,—In your issue for February 1st, 1868, you inserted a first prize essay on the culture of wheat, which had been read to the first agricultural society of the county of Northumberland. The following is the second prize essay, read at the same time, now forty years ago, which I send, hoping that you will find room for it in the pages of your journal. Whether they are the oldest essays on the culture of wheat published in this Province or not I know not—they are the oldest I have seen. The pamphlet from which the essays are copied is entitled, "Report of the proceedings, &c., of the County of Northumberland Agricultural Society, from its commencement in May, 1828, down to the present period, 9th November, 1829." It is of small size, five and a half by three and a half inches, and contains as much reading matter as would fill about two and a half pages of the CANADA FARMER. Besides the essays, which fill about half its pages, it contains an excellent introduction, by their able secretary, J. Steele, on the objects and benefits of Agricultural Societies, gives an account of the first formation of these societies, the rules and regulations of the society, and lists of the officers and directors.

The report was printed at the *Herald* press, Kingston. At that time there was no printing office between Kingston and York, now Toronto.

May I ask, are there any other of our older agricultural societies that published such re-

ports? If so, would it not be well to republish some of their best portions. If there were any such published, their circulation then must have been very limited, and if now republished, would not only be read by a new generation, but also by a greatly increased circle of readers, to whom they would be new.

W. R., Cobourg.

The following extracts embrace all the practical portion of the essay referred to, omitting a considerable amount of other matter, which, however pertinent to the occasion and time, have only a local and personal bearing, and would not now be interesting to the agricultural reader. The extracts are given without alteration or comment:—

ESSAY ON THE CULTURE OF WHEAT. BY C. POWERS.

"Permit me, as an agriculturist, to submit some few practical rules for the growing of wheat with success. To that end, much depends on the choice we make of our soil for the purpose. Although it may be raised to considerable advantage on several kinds of soil, still a clay, mixed with what is called a vegetable or black soil, is undoubtedly the best. That kind of soil which has the greatest absorbent power with respect to atmospheric moisture, is the most fertile. Sir H. Davy, in his *Elements of Agricultural Chemistry*, states that "1,000 grains of a very fertile soil, dried and exposed to the air at a temperature of 62°, absorbed 18 grains in an hour, while another sandy soil, under the same circumstances, absorbed no more than three grains."

In making your fallow, grass sward is preferable to stubble of any kind, and should be turned over in the fall or early in the season, if the tiller intends to make it fine; otherwise the grass will not be properly subdued, and the undecayed sods be a great preventive to a good crop. But if the pressure of other business has delayed you from breaking your fallow till August, do not despair even then of growing a tolerable crop. In this case it should be pasture land, turned well, first dragged, then sowed on the furrows, and well put in. It will be less apt to winter kill, and frequently gives a good crop. A good coat of manure is not only highly requisite to the insuring a bountiful harvest, but the best possible preventive to winter-killing.

In respect to the seed you sow, I would recommend old in preference to new. New seed, if it be contaminated with smut, will have a more natural tendency to transmit the disease to the succeeding crop. Old wheat, if it should be smeared with smut, has had more time to evaporate, and thereby disengage itself from its infectious qualities. Experienced farmers are aware that little is to be apprehended from smut after seeding with old wheat; besides, they will tell you that it is more excellent and abundant in its growth.

Everything that grows or has life requires rest, and to this end Providence has ordered a biennial rest to the fruit trees, shrubs, vines and bearing trees of the forest. And I believe it holds good in philosophy that to multiply the growth of seeds, either animal or vegetable, with too great rapidity, in succession, is but to degenerate its kind. Procuring your seed from a distance, or changing it from a poor to a more fertile soil, is also of considerable advantage. The idea that shrunk seed is as good as plump, fair seed, is very erroneous. To plant the shrivelled corn from the unmaturing ears would do as well. The absurd idea that wheat occasionally turns to chess has most astonishingly gained credence among many farmers. This is physically impossible, and must have been a fabrication of some slovenly farmer, to excuse himself for his negligence in not procuring and sowing clean seed. Equally marvellous is it that some farmers attribute the cause of smut to its being sowed in the waning of the moon; others to a cloudy day or a dewy morning; others to a mealy bag, or pestilential hand from which it is thrown. These are idle whims, idle as the transmutation of wheat to chess. I consider smut in wheat perfectly to answer to smut in other kinds of grain, as in corn, rye, and oats. Few, I imagine, have noticed it in the tops of the June grass; but, in fact, it may be seen plentifully early in the season. The New England farmers, on account of their considering it the cause of the very destructive disease among cattle called the "Black-hoof," defer putting it till September, at which time the "ergot," as they term it, will have fallen. Smut in wheat is natural to most climates and soils in North America, and I believe as far as the cultivation of wheat extends. This cereal has a strong inclination to smut in low vegetable soils.

To prevent the destructive effects of smut and the wheat insect, one process is a remedy for both. The application of a solution of lime is too common to need explanation. A pickle of salt mixed with ashes is also applied in a similar manner, and answers the same valuable purpose. I think a still more convenient and sovereign remedy, is lye from wood ashes, sufficiently strong to amalgamate with oil. Every farmer makes his own ashes, and in that respect it is not only a convenient, but an independent process. It may be drawn from the leach during seed time at pleasure, and mixed in a tub or other convenient vessel, by pouring on the lye and stirring it with a broad stick, or even the hand, till the grain is completely tintured, and turns yellow, and the husk will clean from it by rubbing it in the hands. It is then prepared for sowing, and five pecks to the acre, from the first to the twentieth of September, are sufficient. Another remedy for smut in the field is to let it remain until late before harvesting, and it will fall off and disappear. Trampling the seed in with sheep is well approved in England. A very proper