

centrating into one vast heap all the malice of his offended feelings, he added after a pause of intense meaning, "There is not a brick in your dirty town but what is cemented by the blood of a negro." This shameful address was suffered without notice, and the utterer of it retired without further manifestation of resentment—a moderation speaking volumes in proof of the good sense, and good temper of the Liverpool public."

Agricultural Journal.

From the Fredericton Head Quarters.

Mr. Editor,—I was much pleased with some observations which appeared in a late number of your paper on the subject of farmers expending all their capital in the purchase of land, leaving nothing to enable them to occupy it to advantage. Although the situation of the Southern farmer may differ materially from our limited means, yet the ideas of the writer are evidently founded on facts, and matured by experience, and the system he recommends is well worthy the consideration of the farmers in this Province.

How many farmers do we see in this country who have vested all their capital in the purchase of a large tract of land, and remain in debt for half or more of the purchase money until the interest of the unpaid instalments swallows up the first payments, while the occupant has never been able to make one fourth of the land available to any useful purpose? The same injudicious practice has been pursued by the new settlers generally, and particularly by the emigrants, who come to this country with strong prepossessions in favor of large estates, which they compute by the number of acres.

Having had great experience in the progress of new settlements during a practice of thirty years as a Surveyor of Land, I have long witnessed with regret the extent of this error. Many have found it exceedingly expensive to retain possession and exercise ownership over their several hundred acres, which they have hoped in vain for many years would rise in value, but which still remains a useless burden to the owner. More than half the farms in the country fall short of having one tenth part of their extent profitably occupied or improved within twenty years of their first occupation. Few are aware of the great expense of keeping a large farm under suitable fence, while they are unable to turn it to annual advantage, and while a little labour is extended over a large space it will never be repaid by the crop, and the owner will remain ignorant of the value of the soil. It is no uncommon occurrence to see one acre produce an abundant crop, richly rewarding the farmer, and paying a handsome rent to the owner, while ten acres of a soil originally as good as the other, hardly producing a crop worth harvesting. Many new settlers have been content with a new land crop as it is termed, that is, they clear and burn off their new ground and take off a good crop of grain, and then consider their land useless for the future until it may become forest again; and in this way many fine tracts have been ruined.

I am fully satisfied that nothing short of a skillful and thorough cultivation of the soil will repay the husbandman: and the farmer who purchases more land than he can occupy in such a manner as to repay the lawful interest of the purchase money is a useless burthen. The art of occupying a small farm in such a manner as to make it produce a great crop, and improve in fertility from its own resource, is a secret to most of our farmers, but it is attainable, and when once generally understood and practiced, the grand desideratum in agriculture will be attained.

The Farmers of New Brunswick are generally enterprising, ingenious and persevering, in every thing excepting the business of their profession: but that they have undervalued as a profession.

The following extracts are taken from an Address delivered by Dr. Lee, before the Erie County Agricultural Society, published in the Albany Cultivator.

VALUE OF AMMONIA TO PLANTS.

"I have stated to you that most plants require, in addition to water and carbon, a portion of nitrogen. This also comes from a gaseous substance in the atmosphere. Although nitrogen forms the largest element in the air, (79 per cent.) yet it has been pretty well settled that plants do obtain the nitrogen by decomposing common air, but derive it from ammonia, which is furnished to the atmosphere in great abundance by a world of decomposing vegetables and animals. It is the ammonia that escapes from putrifying substance that causes their of-

fensive smell. Now, again comes up the practical question: How are we to collect this highly volatile gas and transform it at the cheapest rate, into wheat, because cheese and wool of which it is an important element? Rain water has a strong affinity for ammonia—which is a compound of 14 parts of nitrogen and 3 of hydrogen. Water at 50 degrees will absorb 650 times its bulk of this vegetable food. Every rain then, brings considerable quantities of it to the ground. It is the ammonia in rain water that imparts to it its peculiar softness in washing the hands or clothes. It is the ammonia in snow that makes it valuable as a manure; and it is the ammonia in rain water that causes it to purify in some degree, like an animal substance, when water is permitted to stand in water in a close vessel above ground. The first fall of rain after a long drouth, is much the richest in this gas. Being extremely volatile, it escapes in to the air again after a warm shower, much quicker than water evaporates. What then will aid cultivator of plants and seize this volatile ammonia, as lime does carbonic acid, and hold it permanently about their roots, in such a shape that it will feed them all they need, and no more? For an excess of this stimulating alkali, like excess of salt in our food, will destroy life instead of supporting it.

Common charcoal is the cheapest, and therefore the best material to apply to cultivated fields for this purpose. It will absorb 90 times its bulk of ammonia, and will give it out slowly to the vital attraction of the roots of plants. Most of you know that charcoal will correct the taint in meat—will purify rain water in a suitable cistern, so as to render it the purest water for culinary purposes. Such charcoal should be often renewed in filtering cisterns, and when saturated with ammonia, is an extremely valuable manure. The liberal application of this well known substance to the wheat fields in France, has mainly, in connection with the use of lime added within the last ten years, 300,000,000 bushels to the annual crop of wheat grown in that kingdom. The charcoal should be sown in May, at the rate of 75 bushels per acre, well pulverised. This subject is one of the vast practical importance. By studying the science of agriculture, you may grow fifty bushels of good wheat on any acre of your land, I have good reason to believe, every year, bating of course extreme casualties.

"You all know that a single kernel of wheat, will sometimes, when its fecundity is highly stimulated, send up 20 stalks, and that each stalk will bear a head containing 100 kernels. Here is a yield of 2,000 fold. Nature then has rendered it practicable to harvest 2,000 bushels of good wheat from one bushel of seed. The most skeptical among you will not deny that 2,000 kernels have been produced from one kernel, and that the same natural causes that produce such a result in one instance, will ever operate, at all times, under like circumstances, in the same manner. Hence it is but reasonable to say that nature is quite as willing to produce 50 bushels of good wheat on an acre of ground every year, mark me, if her laws be obeyed, as she is to grow fifty bushels of weeds every year on the same ground."

IMPORTANCE OF WARMTH AND QUIET TO DOMESTIC ANIMALS.

"Permit then, a practical agriculturist, who has devoted the best energies of his mind for years, to the study of agricultural chemistry, vegetable and animal physiology, to say to those of you who are wool growers, that by keeping the animal warm in winter, cool in summer, and quiet throughout the year—by stimulating with the elements of wool the organ that secretes this valuable covering of the sheep, it is practicable to clip six pounds of wool as the product from the same amount and value of raw material that now yield you but three pounds. To accomplish this important result, this physiological change in the products of this living machine, you must quiet the action of the lungs. These expel from the system every moment, night and day a needless quantity of animal food, which under more favorable and other circumstances, might have been converted into wool, tallow and muscle. Mark me! There is a positive loss, a needless throwing away of 29 to 50 per cent of the food in wintering all domestic animals, which is literally burned up from nature in this cold climate, to keep their blood and the whole animal some 40 or 80 degrees warmer than the temperature of the air with which they are surrounded. It is not merely the hay, oats and corn in domestic animals and the bread and meat in man which are consumed like the animal oil in a lamp, to warm the system, that are lost: but by inhaling a cold

and dense atmosphere, and bringing a larger amount of oxygen gas into the lungs, and through them into the blood, than is needed, inflammation are generated, ending in consumption, alike in man and beast. An animal is an electrical battery or machine. It is practicable so to excite the organ that form fat in a pig, in positive degree, and so to quiet all the other organs of the animal by a kind of negative electricity, that the animal shall transform nearly all of its food that can be converted into fat, into that well known substance. The same remarks will hold true, in a good degree, when applied to the secretion of milk in cows, and the secretion of wool in the capillary organs of the sheep. On the other hand, it is quite as easy to make a pig secrete an enormous amount of bone, and enormous amount of gristle—to have a hide as thick as a board, a nose like a plow beam, ears like sides of sole leather, and legs like an elephant.

From Harwood's Practical Treatise on Guano.

IMPORTANT TO FARMERS.

Genuine Peruvian or Ichaboe (Western Africa) guano, as a manure generally. The following results are taken from soils of every description, and are selected from upwards of five hundred statements, highly attested by a portion of the most scientific agriculturists of the United Kingdom. From the application of guano, all white and green crops arrive at maturity earlier than from farm yard manure, bones, any other compost. The advantage in producing turnips is of the utmost consequence to the farmer, and, by their germinating rapidly, the braids are stronger and less liable to be overtaken by the fly: and to secure early and good turnip and all other crops, is the agriculturist's surest and best groundwork. Turnips, after the application of genuine guano, average seven to fourteen days earlier than from farm-yard manure, four to seven days before bones, and a week before that of nitrate of soda.

The following concentrated statement is an exemplification of the extra produce, as also the value of guano compared with farm-yard manure and bones: rape cake or dust is not noticed, being only fourth in the scale, compared with the former, as to produce in general. The proportion of guano, 3 to 3 cwt; 20 tons farm-yard manure; 20 bushels of bones per statute acre.

From the use of guano, turnips produce one-fifth more than from farm-yard manure, and one fourth more than bones; from the use of guano barley produces 11 imperial bushels more than from farm-yard manure, and six more than bones; from the use of guano, seeds produce one fifth more than from farm-yard manure, and one sixth more than bones; from the use of guano, oats produce one-fourth more than from farm-yard manure, and fifth more than bones: from farm-yard manure, and four bushels more than bones; from the use of guano, straw produces 9 doz. of 84lbs. more than from farm-yard manure, and 6 doz. 84lbs. more than bones; from the use of guano, grass and clovers produce one-fourth more than from farm-yard manure, and one fifth more than bones; from the use of guano, hay produces one-third more than from farm-yard manure, and one-sixth more than bones: from the use of guano, aftermath (or grass) produces nearly double more than from farm-yard manure, and one-fourth more than bones; from the use of guano, potatoes produce one sixth more than from farm-yard manure, and one-eighth more than bones; from the use of half guano and half farm-yard dung, produce one-half more than from farm-yard manure, and one-eighth more than bones.

The superiority in quality of all crops is fully admitted, not only in the statements alluded to above, but also from innumerable results reported to the Royal Agricultural Society of England, and other highly attested accounts to be found in the Farmer's Magazine, and other important publications of the present day, also admitting its duration compared with farm-yard manure, bones, and is decidedly quite equal, and that without permanent injury to the land.

It must be particularly noticed, that where guano was applied to the different soils, and did not prove successful, in all cases it is ascertained to be from a misapplication, and introducing what was purchased at a reduced rate—spurious guano—in fact, no guano at all; and the purport of this treatise is, to lay down proper rules of management, and those collected from the highest agricultural authorities in England and Scotland. But all observations on the important value of guano—the most portable and powerful manure hitherto discovered—will avail nothing, unless genuine guano is procured.

Editor's Department.

MIRAMICHI:

CHATHAM, SATURDAY JULY 20, 1844.

EUROPEAN NEWS.—The Royal Mail Steamer Hibernia, arrived at Halifax, on the afternoon of Monday, after an extraordinary passage of eleven days. By her we obtained our files of English papers to the 4th of this month.

The weather throughout Great Britain and Ireland, since the sailing of the Britannia, has been, generally speaking, favourable to vegetation. A Dublin paper speaking on this subject remarks:—"the weather throughout the Island is superb; we have plenty of rain, sunshine, and heat, leaving the husbandman nothing to desire."

Parliament, it is reported, will be prorogued about the 20th of the month.

The following is a copy of the brief answer of Her Majesty to the petition of the Corporation of Dublin, on the subject of Mr O'Connell's imprisonment, which was presented to her, at Buckingham Palace, on the 19th ult.

"I thank you for your renewed assurances of loyalty to my person and crown. I have announced to you my fixed determination to uphold the law, and respect the decisions of my courts, to which the administration of justice is confided.

"If errors have occurred in the proceedings of the courts, they are open to review, and will be rectified by the supreme tribunal of appeal.

"The faithful execution of the law is regarded by me as the surest safeguard of the rights and liberties of my people."

The papers contain a good deal of intelligence, but nothing of startling importance. We have devoted a large space to extracts, which will be found under the proper head.

UNITED STATES.—Philadelphia has been the theatre of another savage and desperate affray, in which a number of individuals lost their lives. We have collected from different sources, an account of this outbreak, and the causes which led to the same. There is much reason to apprehend, that if the disposition of certain parties in this city, so frequently manifested of late, to wreak their vengeance on one another, is not speedily checked, they will be ranged in hostile array in other towns and cities of the union.

As far as we can perceive, the following was the first scene enacted in this disgraceful drama, and the cause of the frightful acts which followed.

"Early on Friday morning an attack was made by a small party of Irishmen, about 50 in number, upon the tents which had been pitched for the accommodation of the Native Americans, on the 4th, in Fisher's woods. The few individuals in whose care they were left, having been forcibly expelled, and in some instances, severely beaten, the Irishmen then proceeded to demolish the tents. It is also stated, that they rent and burnt the American flag which floated over the 6th ward head quarters, in the northern Liberties.

"The excitement produced by these acts, increased throughout the day, and in the evening was at the highest pitch, by the rumour that fire arms had been carried into the church known as St. Philip's de Neri, situated in Queen street.

"A large crowd soon assembled round the building, evincing demonstrations of a very glaring character: when the Sheriff made his appearance, at 10 o'clock, in compliance with the demand of the people, he entered the building, accompanied by a large body of policemen, and brought forth 12 muskets. The difficulty did not seem to subside until the Sheriff promised to remain in the church, which he entered for the purpose with twenty citizens for that purpose. The mob still remained to the number of thousands, until dispersed by the arrival of troops. The arms had been placed in the church agreeably to the orders of Governor Porter and General Patterson."

On the 5th and 6th, there was some ebullition of feeling evinced on the part of the people, but nothing of a serious nature occurred. On the 7th things assumed a more serious aspect. We give below an account of what transpired on that and subsequent days, copied from the New York Sun.

"The riot commenced on Sunday the 7th inst., in front of the Church of St. Philip, which being left unprotected, the mob rushed into it like a torrent, and as awful scene of desecration