freely open to the ships of every nation. And what, let us ask, have been the results of allowing the laws of nature thus to take their course unhindered? The revenue of the Province during the eight years we are referring to, has risen from £400,000 to £1,400,000 a year; that upwards of 1,000 miles of railway are completed, and 2,000 more begun. It is shown, too, that in proportion to its actual wealth and population, Canada is increasing in material prosperity faster than even the most flourishing States of the neighboring republic. All this has been done in the short space of eight years, and in spite of the heavy blow inflicted on the Canadian millers and corn-growers by the destruction in 1846 of the prospects held out to them by our legislation of 1843."

(To be continued.)

PARSNIPS.—Parsnips cause cows to produce an abundance of milk, and they eat them as free as they do oil-cake. Land, £7 an acre in Guernsey, is sown with parsnips to feed cattle, and the milk is like cream. Sheep, when lambing, fed with them, produce much milk. They are improper food for horses, subjecting them to blindness.

GUANO AND ITS SUBSTITUTES.

Is it necessary that millions of dollars should annually be sent to a foreign land, in order that the elements of fertility should be returned to an exhausted soil? We think not, if as a nation and a people we were to husband every source of fertilizing material, and not despise the day of small things, in economizing manures of every description.

Though the almost magical powers of guano have been known for hundreds of years, it was not until recently that public attention was so strongly directed to it as to insure its general use. A quarter of a century ago, the lamented SKINNER called the attention of farmers and planters to its power as a fertilizer, but to little purpose. Guano, as most of our readers are well aware, is the dried excreta of sea-fowls, deposited on the islands off the coast of Peru. The supply is not inexhaustible, and at the present increasing rate of consumption, another quarter of a century will see but little left in its present locality. Wherein is its great virtue as a fertilizer, and wherein does it differ from common yard manure? A reference to the component parts of each, will aid us in replying. Guano, as the average of analyses made by BERTELS, OELLACHER, and URE, as given in SOILY'S *Rural Chemistry*, page 375, contains in 1,000 parts—

	Bertels.	Oellacher.	Ure.
Urate of ammonia	32	122	147
Oxalate of ammonia	134	177	32
Oxalate of lime	104	13	10
Phosphate of ammonia	64	60	143
Phosphate of ammonia and magnesia	42	116	45
Phosphate of lime	100	202	220
Muriate of ammonia	65	22	30
Chloride of sodium	1	4	—
Carbonate of ammonia	—	8	10
Carbonate of lime	—	16	—
Sulphate of potash	42	40	60
Sulphate of soda	11	49	—
Sulphate of ammonia	—	—	20
Phosphate of soda	53	—	—
Humate of ammonia	—	11	—
Wax and resin	6	7	—
Sand. Insoluble residue	58	17	12
Alumina	1	—	—
Water	227	43	85
Organic matter		93	186
	1000	1000	1000

Let us notice the composition of the various kinds of animal excreta as given on pages 370 and 371 of the work quoted above:

"Fresh horse dung consists of 284 parts dry organic matter, 18 parts inorganic matter, and 698 parts water. Of the inorganic matter about one-ninth is carbonate and phosphate of lime, one-twelfth alkaline salts, and the remainder silica (ZIERL). Horses' urine consists of 27 parts dry organic matter, 33 parts inorganic matter, and 940 parts water.

"Fresh pigs' dung, consisting of the excrement and urine together, contains 93 parts dry organic matter, 87 parts inorganic matter, and 820 parts water. Pigs' urine contains 56 parts dry organic matter, 18 parts inorganic matter, and 926 parts water (SPRENGEL). The inorganic matters consist chiefly of alkaline salts.

"Human excrement (according to BERZELIUS) contains 227 parts dry organic matter, 100 parts inorganic matter, and 733 parts water. Its constituents are—

Albumen	9
Extractive	27
Mucus, fat, resin	140
Bile	9
Vegetable remains	70
Soluble salts	12
Water	733
	1000

"The inorganic matter contained in 1000 parts consequently weighs 150, and contains 100 parts earthy phosphates, 12 parts carbonate of soda, 8 parts sulphate and phosphate of soda, and sulphate of potash.

"Human urine (according to BERZELIUS) consists of 40 parts dry organic matter, 7 parts salts of ammonia, 11 parts inorganic matter, and 933 parts water."

Thus we see that in the urine and fœces of man and beast are contained nearly the same elements. The general practice has been to husband the latter, while the volatile parts of urine, which constitute its chief value as a manure, are allowed to escape without check or hindrance. We can well afford to imitate the Chinese in their practice of economising manures. Rude as their implements of husbandry may appear to us, still the practice and means of fertilization which they use may teach us a useful lesson, if