in length than the width of the silo. As the silo is forty feet long, it will take ten of them to cover it. The object in making them only four feet wide will be apparent later. Now when the silo or pit is full of green stuff, even to the level of the fifteen feet additional, the sectional covers are put on the green stuff, and these are weighted evenly and carefully. With many who have basements under their barns, a silo, or pit, could be made outside, close to the basement wall, located in a place where it would be most convenient to use in the basement, or otherwise, by making a passageway to the pit or silo, through the foundation walls of the barn. Any form or construction of silos, or pits, which answers the location and condition may be used, such as pits or wells, open only at the top, the food being put in and taken out from the top only. Such silos, or pits, would have the advantage, that successive croppings might be put in the same pit, or silo, one above the other, each being sealed with a layer of earth when put in. The deeper the silo, or pit, the more they will contain in proportion to measurement, owing to the greater density of the contents from the weight of the mass above; and the greater the pressure the more thorough the exclusion of air, and, without any doubt, the better preservation of the ensilage.

There is no reference to the use of salt in the system as recently practised by a few persons in the New England States. The whole secret of ensilage depends upon a simple mechanical one, that of perfectly even continuous compression. The air must be excluded, and also the ambient moisture. One of them weights his covers by placing on top of each silo fifty tons of grain or ground feed in bags, which he afterwards uses to mix with his ensilage at time of feeding. He recommends, in case grain is not handy, that barrels be filled with gravel or sand, and used for the same purpose. As soon as the weighted covers are applied, the mass gradually sinks, until it reaches a level with the floor, and if the pit has been properly constructed, after the sinking down is concluded, the pits, or silos, are exactly filled. In about ten days the mass has come down to its bearings. In two weeks after it has been put down it is ready to use, and the operation is completed.

COAL PRODUCTION AND CONSUMPTION.

Coal, iron and textile fabrics being three of the principal commodities of the world's commerce, reliable statistics concerning them offer a peculiar interest, inasmuch as they show the values required to satisfy the wants of all civilized nations. An Austrian professor has recently published a work which treats of the subject in an apparently satisfactory manner. The rapid increase in the production and consumption in these commodities during the period from 1865 to 1873 proved that the economical condition of all countries was then at its best. The crisis of 1873, however, produced a reaction which spread over the whole globe, and it is only during and since the last months of 1879 that signs became apparent which pointed to a change for the better.

The production of coal has enormously increased within a comparatively brief period. Great Britain, which at the opening of the eighteenth century produced about 2½ million tons, and in 1860 over 83¼ millions, had increased its coal production in 1878 to 137 millions. In 1787 France raised only 211,000 tons; in 1860 it produced eight millions, and in 1878 it produced 17 millions. The United States advanced from 1⅓ million in 1830 to 3 millions in 1840, to over 15 millions in 1860, and to 54⅓ millions in 1877.

The total output since 1860 of those countries which yield about 97 per cent. of the total production of the world is as follows in round millions of tons:

	Great Britain.	United States.	Germany.	France.	Belgium.	Austria.
1860...	85	15	12	8	10	3½
1866...	103	22	28	12	13	5
1872...	125	46	42	16	16	10
1873...	130	51	46	17	16	12
1874...	127	49	47	17	15	12
1875...	134	48	48	17	15	13
1876...	135	50	49	17	14	13
1877...	136	55	48	17	14	14

That there is no danger of the coal supply becoming exhausted is shown by the following estimated areas of coal fields in English square miles:

China	200,000	Great Britain	9,000
North America	193,870	Germany	3,600
East India	35,000	France	1,800
Russia	15,000	Belgium	900

We are indebted to Mr. Chas. Robb of this city, late of the Geological Survey, for the following approximate estimate of the area and the latest production of the various coal fields in the Dominion of Canada:

	Area sq. Miles.	An'l Prod'ns. Tons.
Cape Breton, Sydney Field	300	325,700
Do Richmond	25	.....
Do Broad Cove, Mabou, &c	10	.....
Nova Scotia, Pictou	48	304,500
Do Cumberland	200	52,000
New Brunswick (but not reliable)	100	5,00
Albertite, New Brunswick (average of 12 years)	2	13,000
British Columbia	100	81,000
Newfoundland	50	.....
Total	835	781,200
Or say in round numbers	900	800,000

The vast fields of lignite tertiary in the Saskatchewan and Souris regions, in the North West territory, which are of unknown extent, and not yet worked, are not, of course, included in the above estimate; vast fields of true bituminous coals are also reported still farther north, but we have as yet no authentic information as to their richness or extent.

Australia, which has large fields of excellent coal, has already begun to supply all the Pacific demands. The consumption of coal per head of population is estimated in tons as follows:

	1865.	1874.	1877.
Great Britain	3 092	3.558	3.629
United States	0.598	1.162	1.064
Germany	0.730	1.129	1.114
France	0.470	0.638	0.646
Belgium	1.577	2.040	1.963
Austria	0.139	0.327	0.330

In England about one-third was consumed by the manufacture of iron and steel, and more than one-fifth by the rest of the large industries, more than one-sixth for domestic purposes, and the remainder by gas-works, water-works, mines, railways and steamships. In France the metallurgical, industrial and gas works consume 72 per cent; the household 13 per cent., and the mines 4 per cent. of the total amount. The average prices per ton in England (Best Wallsend, Newcastle, in London), the United States and Germany are as follow for the years named:

Year.	England. s.d.	United States. $	Germany. Marks.
1869		3.85	
1870	17.8	3.82	5.92
1871	19.7	4.00	7.04
1872	25.5	3.32	8.64
1873	46.7	3.75	10.94
1874	31.2	4.00	10.56
1875	25.11	3.81	7.62
1876	20.1	3.47	6 58
1877	19.11	2.37	5.70
1878	19.0	3.12	5.26
1879	17.0		

The number of men employed in England in coal mining in 1876 was 514,500; in Germany, 210,000; France, 97,000; Belgium, 101,000; United States over 100,000.

RELATIONS OF CANADA WITH FRANCE.

Senator Fabre has returned to Canada after a protracted absence in France, during which he has been carrying on what