

The Queen has been paying a visit to Arundel, the seat of the Duke of Norfolk, who fills an office under Her Majesty, and the daily newspapers contain long details of the circumstances connected therewith. The Ethiopian Serenaders were retained to amuse the Queen and the noble guests.

The New York packet ship, *Victoria*, on her recent arrival at London, brought, as part of her cargo, 250 bales of American hops, which excited some attention in the city of London. This article will, probably, under our new liberal commercial policy, become one of considerable importance to the American grower.

The Grand Duke of Mecklenburg-Schwerin has just addressed a rescript to the head of the Jewish communion in his dominions, declaring that after St. John's day, 1847, the annual tax paid by the Jews shall be suppressed.

A French physician is said to have invented a new ear-trumpet, by means of which words uttered in a low tone, may be heard at a longer distance by two-thirds than with any other instrument.

FRENCH COAL MINES.—The report of the engineer, appointed by the administration of roads and bridges in France, states, that that country is in the third rank as regards the production of coal; England and Belgium being the first and second. The production of England annually is 23,500,000; of Belgium, 4,500,000; of France, 3,783,000; and of the Zollverein, 3,000,000 tons.

THE POTATO DISEASE.—Baron Leibig imagines the essence of the potato disease to consist in the conversion of the albumen, a usual constituent of healthy potatoes, into caseine, a principle which, by its great instability of composition, is supposed to cause the potato to putrify rapidly. The Rev. F. Dauvenoy states, in the *Taunton Courier*, that he has discovered by the microscope a minute insect, crystal-like and transparent, resembling a spider, in the midst of potato mildew, evidently feeding on it, and making its nest among the thread-beds of fungi. From observations made, there must be more than 100 in a single tuber.

FRENCH IRON MINES.—Beds of iron ore are known to exist in France, extending from Luxembourg to the mountains of the Vosges, and within the past three months, extensive works have been opened from the village of Moulins, along the valley of Mance, on the banks of the Moselle. The ore is rich, and fit for the manufacture of rails, and is giving employment to a large number of the people. The furnaces used in this department produces upwards of 12 tons of metal per day. 21 furnaces will, in a short time, be in blast, which in five years will furnish at least 315,000 tons of cast metal.

NEW POLAR EXPEDITION.—At the last meeting of the Royal Geographical Society, it was announced by Sir J. H. Pelly, that the Hudson's Bay Company had fitted out a well-equipped expedition, for the purpose of surveying the unexplored portion of the coast on the north-east angle of the American continent. The expedition, consisting of eleven persons and two Esquimaux guides, started in two boats, on the 5th July, under favourable circumstances, the ice having cleared away from the shores of the Bay at an earlier period of the season than usual.

[From the *Albion*, New York, December 5.]

THE HUSBANDRY OF SCOTLAND.

In recognizing Scotland as one of the grand divisions of the great British family, it is delightful to observe how closely she treads on the heels of England in all that relates to learning, to the arts and sciences, and to social advancement. Scotland, in many things, and in some, perhaps, our superior; for amidst the great discoveries and improvements emanating from Great Britain, we all know how large a portion of them have their paternity with men who first breathed life north of the Tweed. Of Scottish learning and Scottish literature we need say nothing, for those are topics familiar to every one. Of the manufacturing skill and industry of Scotland the world bears ample testimony; yet one can scarcely avoid paying a passing tribute to the wonderful fabrics of Glasgow and Paisley, now becoming celebrated throughout the world, as well as to the mighty engines which Napier is yearly launching, for bringing more nearly together the distant parts of the earth.

It is the husbandry of Scotland and the science of agriculture, as there practised, to which we desire to call attention. At this distance from home, and engaged in the pursuits of commerce, many may not be aware of the great and astonishing progress making in the art of cultivating the earth. Of Scottish husbandry in the Lowlands we have long had highly favourable notions, but few, we imagine, are aware of the wonders which are working in the North and in the Highlands, where a cold, poor, and barren soil is now, by the agency of modern science being transformed into smiling fields teeming with golden harvests. Lest we should be thought exaggerating or speaking in hyperbole, we would direct the attention of any doubter to an article in the last number of the *Edinburgh Review*. He will there see a statement that will astonish him, and cause his heart, if he be a true Scot, to beat with exultation. He will learn that the principles of scientific agriculture are now carried into the remote Highlands. Glens which formerly knew nothing but the poor husbandry of the poor Celt, are now filled with the name, theories, and discoveries of Liebig, and ex-

hibiting signs of the best English agriculture. "I was delighted," says the author of the article alluded to, "a year ago, when far up the *Strath Glass*, to meet a cart loaded with bags of guano." Doubtless this was intended to fertilize some formerly barren plain, which had been till then used for the dangerous practice of deer stalking, or the still more dangerous and mischievous practice of illicit distillation. "And near the same place," says the same authority, "I heard a class of bare-footed boys in a small school by the way side, successfully examined in chemical agriculture!"

It is the thinking habits of Scotchmen, together with their early education, which give them such great advantages; and when these qualities are combined with modern science no wonder that agriculture and all other pursuits advance with such striking rapidity.

In making our selection to-day we have given a portion of the article in the *Edinburgh Review*, to which we refer the reader; but we cannot refuse ourselves the satisfaction of pointing out two or three more remarkable facts. At page 423 the writer says, "Who shall place a theoretical limit to the triumphs of skillful industry? In Glen Urquhart, on the opposite side of Loch Ness, wheat is grown and ripened at a height of 800 feet above the sea; and in Nairn at 1000 feet." In Strathearn a beautiful crop of turnips have been raised at 1200 feet: and in the Wicklow mountains turnips may be found luxuriating at 1600 feet, under the management of a pupil of Glasnevin School. These wonders are wrought in latitude 56, nearly seventeen degrees, or about one thousand miles, due north of the city of New York, a latitude corresponding with Hudson's Bay! We make another extract.

"We know of few districts in which the outlay of industry in the improvement of the soil presents itself in a more striking light than in the neighbourhood of Inverness. The Parish of Urray, on the north of the Beaully Frith, has the appearance of one broad river bed. Gravel and stones are the materials on which the cultivator has to work. The slopes of the hills above the head of the lake, are of a similar character,—sand, gravel, and large blocks of stone, with a varying admixture of clay. Above the town of Inverness, again, to the south and south-east, the plains of Culloden resemble a stony pavement; and the slopes of the river Nairn behind it are almost equally beset by huge boulders on the surface, and by earth-fast stones and stony gravel below.

"But on these apparently hopeless materials, human industry is at work. The moor is giving place to the corn field. An expenditure of labour in draining and trenching, which costs sixteen pounds an acre, is repaid by these gravelly plains and slopes. It is repaid, we infer, because the improvements are constantly in progress; and at each successive visit, we find them further advanced."

It is in the redemption of such soils as these that the science of agriculture is so conspicuous. It matters not what the soil may be—sand or clay, rock or gravel—modern skill will bring it into profitable use. The notion that any soil is irreclaimable is now exploded; for if it be a bed of sand, deep draining and subsoil ploughing will speedily bring it to a state to receive manure and produce crops. A gentleman, a few years since, purchased 400 acres of sandy waste, yet in two years he made a part of it yield 30 bushels of oats to the acre; and on the third year he raised a fine crop of wheat! A piece of slate land, for instance, which would scarcely produce a thistle, will under the judicious application of lime, speedily become fertile; because the lime acts chemically on the slate, and creates a soil of exceeding fertility. By a system of irrigation with the water of the common sewers of Edinburgh, meadow land, in the vicinity of that city, may be mowed four or five times in the season. Such land lets at £40 and £50 sterling per acre. Again—

"No spot is now safe, by its remoteness, from the access of remedial alterations. The Isle of Islay is fast increasing in agricultural productiveness; light is about to descend upon the smaller Island of Tiree; Mull is beginning to move; the distant Lewis is threatened with a much dreaded agricultural revolution; and in the little heard of Orkneys, the high bred farmers of the Lothians are not disdaining to settle."

Accessibility to the London market, by means of steam vessels, is of the highest importance to the Scotch farmer. In July of last year, one steamer alone carried from Inverness 700 pigs, 200 sheep, and 30 head of cattle, besides many tons of eggs and salmon. Even more than this is constantly done from the rapidly improving county of Aberdeen.

The agricultural schools springing up in so many parts of England and Scotland, is one of the most pleasing and remarkable features of the times. These Schools will be productive of general education, and husbandry will not only be raised to the dignity of science, but husbandmen will become educated persons. In the course of another generation the tillers of the soil will probably be the best informed class of persons in the kingdom; and it will not then be in the power of any League, however wealthy and unscrupulous, to crush them. Dense as the population of Great Britain is, it is now ascertained by accurate calculations, that when the entire cultivable surface of the three kingdoms is brought under scientific management, and which is in rapid progress, there will be an excess of wheat crops amounting to many millions of quarters beyond the demand made for the use of the present population. The British isles then have not attained their maximum of population, and if the potatoe lands be henceforward appropriated to grain, and Indian corn from America supply the place of the potatoe—England may yet be made to support fifty millions of people!!!