

all these railways for the carriage of Coal, Coke, and minerals, amounted in 1863 to \$27,098,335; being for England and Wales \$22,522,170; Scotland \$4,425,400; Ireland \$150,765. There are now in the British Islands three hundred and seventy-five district railway companies, who own eleven thousand five hundred miles of road. They carry above eighty million passengers yearly, and above thirty million tons of merchandise and minerals. They give employment to probably not less than two hundred thousand persons. The number of locomotives owned by the railway companies of the United Kingdom at the close of 1863 was 6,643. At the close of 1862, the corresponding number was 6,398.

## 2. THE QUEEN ON RAILWAY ACCIDENTS.

The Queen with her natural kindness of heart is concerned at the large number of accidents which have taken place on railway lines centring in London, and has written a letter addressed to the directors of those companies. Her Majesty's remarks will apply with almost equal force to railways in this country. It may be that some of the deplorable accidents happening in this country are the result of carelessness, and it behoves the managers of railways and those in charge of the running of trains to use the utmost caution and diligence. Particular at this season of the year, and for the next three months is extra care absolutely necessary. The number of track-men should be increased, and made to keep a sharp lookout for broken rails. The Queen's letter is as follows:—

"Sir Charles Phipps has received the commands of Her Majesty the Queen to call the attention of the directors of the \_\_\_\_\_ to the increasing number of accidents which have lately occurred upon different lines of railroad, and to express Her Majesty's warmest hope that the directors of the \_\_\_\_\_ will carefully consider every means of guarding against these misfortunes, which are not at all the necessary accompaniments of railway travelling.

"It is not for her own safety that the Queen has wished to provide in thus calling the attention of the company to the late disasters. Her Majesty is aware that when she travels extraordinary precautions are taken; but it is on account of her family, of those travelling upon her service, and of her people generally, that she expresses the hope that the same security may be insured for all as is so carefully provided for herself.

"The Queen hopes it is unnecessary for her to recall to the recollection of the railway directors the heavy responsibility which they have assumed since they have succeeded in securing the monopoly of the means of travelling of almost the entire population of the country. Osborne, Dec. 27, 1864."

## 3. RAILWAYS IN INDIA.

There are at present ten railways in India either opened for a portion of their whole distance or in process of construction, and some of these have branch lines. Two lines, the Scinde (114 miles) and the Eastern Bengal (115 miles), are finished their whole length. The total length of line now opened for traffic is 2,687½ miles, and 2,100 miles yet remain to be constructed before the system, as far as sanctioned, will be completed.

## 4. RAILWAYS IN ITALY.

The lines of the new South Italian Railway Company are fourteen in number, their combined length being 853½ miles.—*Journal of the Board of Arts and Manufactures for U. C.*

## 5. RAILWAYS IN CUBA AND SOUTH AMERICA.

In Cuba upwards of 500 miles of railway are open; in Brazil 400 miles are open or in course of construction; in Chili 425 miles; in Peru 40 miles; in Venezuela 53 miles; and in New Granada 50 miles.

## 6. COMMERCE OF JERUSALEM.

The British Consul in his last report, says that Jerusalem is the least commercial and industrial city he knows. The fact of his report may be summed up as follows:—

British trade is represented by one English tradesman, who keeps a store for English upholstery, drapery and fancy goods. The population of the city is computed at 15,000, rather more than half of them Jews, the rest Moslems and Christians. The chief native industry is the manufacture of soap and "Jerusalem ware," this latter consisting of chaplets, crucifix, beads, crosses, and the like, made for the most part at Bethlehem, and sold to the pilgrims, who annually flock to the Holy City to the number of 6,000. The

population of the entire Sanjak, or province is estimated at 200,000, of whom 160,000, are Mahomedans. Owing to the absence of good roads and the insecurity arising from tribes of Bedouins inhabiting the outskirts of the district, but who could easily be kept in check, vast and fertile plains lie waste or are but partially and poorly cultivated; factories are not to be met with, and no mines are worked though it is believed that sulphur, bitumen, and rock salt abound on the shores of the Red Sea. The principal if not the only import from England are cotton goods, and some colonials, but the former have much diminished since the cotton crisis—it is calculated that 300 bales of these goods of the value of £16,000, annually find their way here. The exports are olive oil and grain. Very little is done in cotton culture, what is raised being of inferior quality and consumed on the spot; but it is believed that in many parts of the country cotton, to a very large extent, might be successfully cultivated, with good seed and proper instruction and implements given to the peasantry. The vegetable produce is barely sufficient for local requirements. Jaffa is the port through which Jerusalem deals with foreign countries. The trade of Jaffa experienced an increase in 1863; the quantity of cotton exported rose from 55,000 lbs. in 1862 to nearly ten times the amount in 1863, with a prospect of this again being trebled or quadrupled in 1864. This was owing to the interest exercised. The merchants who operated in cotton made a profit of about 25 per cent. There are regular lines of French, Austrian and Russian steamers, all doing well, and very often large quantities of goods have been left behind for want of room; but only one English steamer visited Jaffa in 1863. The exports exceeded £200,000; of the imports no statistics are kept. The consul reports a telegraphic line in course of formation by the Government between Beyrout and Jaffa, thence to be carried on to Alexandria.

## 7. THE NAVY OF ENGLAND.

The official return of the number, name, tonnage, armament, and horse-power of steamers and sailing ships, composing the British Navy, published on the 1st of January, 1865, under the authority of the Admiralty, states that the total strength of the navy of England numbers 765 ships of all classes, exclusive of which there are now building at various dock-yards, 28 others, which will mount from 1 to 81 guns each, and many of which are far advanced towards completion. Of the above number of vessels 350 line-of-battle ships, frigates, corvettes, sloops, &c., are ready to put to sea at a short notice, exclusive of about 100 gun-boats. The number at present in commission and doing duty in various parts of the globe amounts to 224, besides 48 gunboats; and there are also in commission 48 coast-guard cruisers, and 38 watch-vessels. The above total may be summarized thus: 342 effective line-of-battle ships, frigates, corvettes, sloops, &c., mounting from 1 to 131 guns each; 114 screw gunboats, from 200 to 270 tons each; 108 sailing ships, many of which are in commission; 115 employed in harbour service as receiving ships, hospital ships, powder depots, coal depots, &c.; 48 coast-guard cruisers, and 38 coast-guard watch-vessels.

## VI. Papers on Natural History, &c.

### 1. THE VEGETABLES THAT WE USE.

It was the belief of some among the ancients, that man had received from the gods, the seeds of the grains, and of the various other plants which he cultivates as sources of food. In after ages the origin of these plants was no better known, and it was long before it was discovered that they might still be found growing in a wild state. Even in Humboldt's time ignorance prevailed on this important subject. In an essay published in 1807, he says, "The country in which originated the vegetables most useful to man is a secret as impenetrable as the first dwelling place of our domestic animals." Since this time, however, geographical and botanical researches have made rapid progress; a large proportion of the most commonly cultivated vegetables have been found growing spontaneously, and it is agreed by the best naturalists that all these plants have most probably descended from some wild form. This inquiry is of importance, because it has a direct bearing on those questions as to the "origin of species" as to the amount of variability of which species are susceptible, and the causes by which that variability is produced.

Concerning the history of our common kitchen-garden plants, we find some interesting particulars in a paper published in the last number of the *Canadian Naturalist*. The vegetable first considered is

#### THE POTATO.

This plant belongs to the natural order Solanaceæ, and is closely