

to Shebandowan, where the 60th, together with the Artillery and Engineers, were awaiting their arrival. The two Canadian battalions were left at Matawin, encamped one on each side of the river. Orders were issued for the departure of the first brigade of boats from Dum Site on the 16th, and accordingly, after much hard work, the boats were got ready in time, and the long-looked for Shebandowan voyage was commenced on the day mentioned. The first body to start consisted of the head-quarters of the 60th Rifles and two companies, under command of Col. Fielden, and the Engineers and Artillery under Lieut. Henenge and Alleyne. It is expected that the whole of the force will have left the Lake Shebandowan by the end of the first week in August.

With a view of forwarding the progress of the Expedition as much as possible, Colonel Wolseley has sent letters on to Winnipeg with the object of getting the road from the north-west angle made by the Red River people, in time for the arrival of the troops. Mr. Dawson has authority to expend a portion of the money for this road on the Winnipeg section, and Col. Wolseley has written to both Bishops at Winnipeg asking for their assistance in getting the people out to work, and authorising the expenditure of money for this purpose. Mr. Dawson has also written to his representative, giving him ample powers to engage men and commence work. If the letters are productive of any good result, a considerable saving, both in time and distance, will be effected, besides the avoidance of the Winnipeg River, which is that portion of the present proposed route threatening most danger to the boats. The letters referred to have been taken in by Mr. Donald Smith, who has gone to attend the Council of the Hudson's Bay Company at Norway House. They will be forwarded to Winnipeg, and reach there about the 26th of July, so that the inhabitants of the Red River—if they are disposed to give proof of their loyalty—will have nearly a month in which to work at the road before the arrival of the expedition at the north-west angle.

We give, this week, in connection with Red River matters, a view of Fort William, Thunder Bay, another of the Sault Ste. Marie rapids, and an illustration showing Col. Wolseley's tent in the camp at Prince Arthur's Landing. All of these are from sketches by our special artist accompanying the Expedition.

THE STEAMER "QUEBEC"

Water communication between Montreal and Quebec is carried on in summer by two steamers belonging to the Richelieu Company, and named respectively after the two cities between which they make daily trips. The "Montreal" and "Quebec" are two fine roe-my steamers, offering abundant accommodation for the numerous passengers who, during the season, prefer the pleasant water journey to the dust and discomfort of railway travelling. The great attraction offered by the St. Lawrence route is the beautiful scenery on either side of the river between Montreal and Quebec. But next, and hardly second to this, is the comfort and attention that one invariably meets with on this line, and which make the trip by the Richelieu boats so exceedingly pleasant, and such a favourite with all travellers.

Our double page illustration shows the "Quebec," the newest of the Company's steamers, swinging off from the wharf at Montreal and floating down with the swift current of the river. The "Quebec" is a comparatively new and very favourite boat, under the command of Capt. Labelle. She was built in pieces on the Clyde, by Messrs. Barclay, Curle & Co., of Glasgow, and was put together at Sorel in 1865. With a length of 300 feet, and a breadth of 66 feet, she is the largest of the river steamers that ply on the St. Lawrence. She is an upper-deck wheeled steamer, with three decks, two of which contain cabins, offering in all accommodation for four hundred passengers. The wood work of the cabins and saloons is entirely of rosewood, and the rest of the fittings correspond. Besides the "Quebec" and "Montreal," the Richelieu Company own a number of smaller steamers that ply between Montreal and the small ports of the St. Lawrence west of Quebec. The Richelieu is one of the wealthiest and most powerful steamboat companies in the country.

ILFRACOMBE, NORTH DEVON.

We reproduce in this issue, from Turner's "Southern Coast of England," a view of the town of Ilfracombe, the northernmost in Devonshire. It is a populous seaport town, with a harbour at all times accessible. The harbour is formed by nature and art, but, says Turner, "so happily blended that the one only serves to heighten the other." On three sides the rocks rise in a semicircular sweep, and on the fourth they form a massive barrier, stretching half-way across the little cove, and effectually protecting it from the violence of the north winds. The craggy heights which surround the basin are spread over with woodland, which adds much to their picturesque appearance. On the summit stands a lighthouse. The illustration represents one of those calamities that are so frequent on the rugged shores of the county in the neighbourhood of Ilfracombe.

TOULON, THE FRENCH NAVAL STATION ON THE MEDITERRANEAN.

Toulon is, after Brest, the most important naval station of France. It is well adapted in every way for a large port, being situated at the extremity of a spacious bay formed by the Mediterranean, and enclosed on three sides by a line of lofty hills. A narrow neck runs across the end of this bay, thus sheltering it from the squalls of the Mediterranean. The town, and the peninsula which forms the bay, are both strongly fortified, making successful attack by sea almost impossible. The port is enclosed by a double line of bastioned fortifications, and strong forts and redoubts occupy all the important heights. The bay forms a roadstead and harbour, with anchorage for the largest fleet. The port is separated from the roadstead by moles, which are hollow and bomb-proof, and lined by batteries à fleur d'eau. It consists of two divisions—the Port Marchand, on the east, appropriated to merchant vessels; and the Port Militaire, on the west, where are immense magazines and arsenals, ship-building docks, rope and sail works, and the bagne, or convict prison. Toulon also possesses a school of hydrography, a medical-naval school, and an immense arsenal begun in 1860 by Vauban. The entrance of the harbour is commanded by two strong towers, connected by case batteries with Fort Lamalque on the one side and Fort L'Éguillette on the other. Surrounded

thus on every side by strong forts and outworks, and possessing such a convenient harbour, Toulon is considered the strongest naval post on the Mediterranean, excepting, of course, Gibraltar, the key to the whole sea.

The history of Toulon has been an eventful one, as the port has always been a strong position in the hands of the French. In 1521 it was taken by the Constable of Bourbon, and again in 1536 by Charles V. But the most memorable event connected with it was in 1793, when the British, to whom the Royalists had surrendered it, were forced to retire after a siege, in which Bonaparte gave the first evidences of his military genius, and the Republicans gave up the town to pillage, and its inhabitants to massacre.

KIEL—THE PRUSSIAN NAVAL STATION ON THE BALTIC.

With the finest harbour in the Baltic, and one of the finest in the whole world, Kiel was a valuable acquisition to Prussia, when, in 1866, the duchies of Schleswig and Holstein were snatched from Denmark. Prussia, in her growing greatness, required a harbour upon the Baltic, and when she entered upon the Danish war she no doubt had an eye to the immense advantage that would be gained, should such a valuable seaport as Kiel be added to her possessions. She now has two large and important arsenals on her coast, Wilhelmshafen on the German Ocean and Kiel on the Baltic, of which the latter port is destined to become the great naval-station of the North-German Confederation.

The town of Kiel is situated on a fine bay of the Baltic, 53 miles N. N. E. of Hamburg. The harbour is two miles long and nearly two-thirds of a mile in breadth, and is surrounded on three sides by lofty picturesque hills, which shield it from the boisterous winds of the Baltic. The depth of the water inside is 16 feet. With such natural advantages as these it is no wonder that Prussia should have looked upon Kiel with a covetous eye, as Russia had done before her. Russia, however, went to work in a more legitimate way to obtain the coveted post, but met with no success. Eleven years ago, serious negotiations were pending between Denmark and Russia for the sale by the former to Russia of part or the whole of the harbour of Kiel, which would have proved a convenient and important station for the Russian Baltic fleet. Denmark was not disposed to part with her Schleswig possession and thereby obtain the good-will of Russia, and by the aid of her powerful intervention to settle in her own favour the contested question of the Elbe provinces. Happily, however, for Prussia at least, the Frankfort convention declared almost unanimously against the proposition and against the danger of having Russia in such close proximity to the heart of German trade and commerce on the coast.

Since 1866 these relations have been entirely changed. The Elbe provinces remained in the possession of Prussia; and Prussia, becoming greedier as she grew greater, desired a seaport as a station for her Baltic fleet. The importance of Kiel was as fully understood at Berlin, as it had already been in Paris and St. Petersburg, and Prussia, after manoeuvres somewhat different to those already made by Russia, became the possessor of the duchies of Schleswig and Holstein, and with them of the much coveted town and harbour of Kiel. Since that time works have been commenced which, when finished, will make Kiel the most important naval station between Cherbourg and Cronstadt. The fortifications which already existed at the entrance of the harbour—consisting of four batteries—have been enlarged and otherwise improved, and several other batteries have been added. A marine arsenal has also been erected, new docks constructed, and the building of war-vessels has been carried on with the greatest vigour. In every way Kiel is destined to play a great part in the naval history of Prussia, and will occupy no unimportant position in the war which has just broken out.

EMIGRANTS ON THE FORECASTLE.—A SCENE ON H. M. S. "TAMAR."

Any one who has crossed the Atlantic on an ocean steamship carrying emigrants must have been amused as well as edified by the different studies of character to be found among the occupants of the steerage; and many a weary hour has he doubtless whiled away in watching them occupied with the little duties and pleasures of ship life. Our artist has availed himself of the recent arrival at Quebec of the "Tamar," laden with emigrants, to sketch a scene of emigrant life on the fore-castle, which we reproduce on the first page of the present number. The company to which we are introduced in his sketch is not what can be called select, but, notwithstanding, it is very cheerful pleasant company, and the members of it are bent upon making the best of a bad matter, and enjoying themselves to their utmost. In the centre is a family group—grandmother, mother, and sister, who, with husband and brother, have formed a little circle by themselves and are talking over recollections of the past, and anticipations of the future that awaits them in the new country they are soon to call their own. One member of the party, probably the sister of the young mother in the centre, is evidently got up with an eye to effect. She pays but slight attention to the general conversation, but devotes herself to a flirtation with a couple of shaggy sailors, who are probably regaling her with tremendous stories respecting the country for which they are bound. In front a shoeless individual is taking his forty winks, and on the right-hand side a group of three are intently examining a favourite pipe. Sitting with his back against the mast is an individual that reminds one immediately of Martin Chuzzlewit. The same shabby-genteel get-up and the same hopeless look of misery that characterize that prince of selfish men are visible here. At his side is a prig from the chief-cabin, who has come to air himself and his airs upon the fore-castle and to "swell it" among the humbler emigrants. All over the decks are scattered groups of men and women, smoking, working, chatting, reading—very few reading—doing anything to get rid of the time that hangs so heavily upon their hands. On every emigrant ship the scene is inevitably the same; the same matrons with babies, the same flirting lassies, the same hulking young fellows with a scarcity of raiment—these, with a sprinkling of well-to-do emigrants, generally constitute the classes who are to be found on the forecastles of ocean-steamships bound for the west.

CHOCOLATE BLANC MANGE.—A quarter of a pound of sweet chocolate, two ounces of gelatin, one quart of milk, one tea-cupful of sugar candy. Put it all into a jug, set it in a saucepan of water, and let it boil an hour. When nearly cold turn it into the mould.

SYNOPSIS OF THE AMENDED UNITED STATES PATENT LAW.

The *Scientific American* says:—We have now before us a copy of the law, to revise, consolidate, and amend the statutes relating to patents, recently enacted by Congress. It contains no radical changes, but simply codifies the old system, and reduces it into more compact shape. We do not consider it necessary to reprint the entire text of the bill, but will present a summary of its chief features.

The officers provided are a Commissioner, Assistant Commissioner, three Examiners-in-chief, Chief Clerk, Examiner-in-chief of Interferences, twenty-two Principal Examiners, twenty-two Assistant Examiners, Librarian, Machinist, five clerks, class 4; six clerks, class 3; fifty clerks, class 2; forty-five clerks, class 1; and purchasing clerk.

Additional clerks, male and female, copyists, etc., *ad libitum*, or according to necessity.

The claims and engravings to be no longer published in the report. The annual report to contain only a list of the patents.

The three Examiners-in-chief required to be persons of competent legal knowledge and scientific ability.

No other persons connected with the Patent Office required to have such qualifications.

Models to be furnished when required by the Commissioner.

The printing of the patents and drawings is authorized, and we trust that the Commissioner will make the work creditable to the advanced state of American art and invention.

All persons may take patents provided the invention has not been in public use for more than two years.

No discrimination is made against Canadians. The law requiring foreigners to put their inventions on sale within eighteen months is abolished.

Assignments void, as against a subsequent purchaser, unless recorded within three months from date.

All cases can be appealed from the Commissioner to the District Court, except interference cases.

In cases where a patent is refused by the District Court, an appeal by bill in equity may be taken.

Disclaimers may be filed.

Designs may be taken by all persons—no discriminations. This will enable foreign manufacturers to protect themselves against having their designs copied, which has hitherto been quite extensively practised in this country, especially in the production of textile goods.

Trade-marks may also be protected by firms or individuals, \$25 for thirty years, with right of renewal.

The above are the more important changes made by the new law. They are simple, and on the whole commendable.

SIZE OF OUR GREAT LAKES.

The latest measurement of our fresh water seas are these: The greatest length of Lake Superior is 335 miles; its greatest breadth is 169 miles; mean depth, 638 feet; elevation, 627 feet; area, 42,000 square miles. The greatest length of Lake Michigan is 300 miles; its greatest breadth is 108 miles; mean depth, 990 feet; elevation, 507 feet; area, 23,000 square miles. The greatest length of Lake Huron is 200 miles; its greatest breadth is 160 miles; mean depth, 699 feet; elevation, 274 feet; area, 20,000 square miles. The greatest length of Lake Erie is 250 miles; its greatest breadth is 80 miles; its mean depth, 84 feet; elevation, 555 feet; area, 6,000 square miles. The greatest length of Lake Ontario is 180 miles; its greatest breadth is 95 miles; its mean depth, 500 feet; area, 6,000 square miles.

The Duke and Duchess who live at Brentham in Disraeli's novel, and whose seven daughters are all married but one, were modelled after James and Louisa Hamilton, Duke and Duchess of Abercorn. The Duchess is a sister of Earl Russell, and has married her six daughters, half to Whig Peers and half to Tories. Her unmarried daughter is said to have been loved by the Marquis of Bute; of the others, the eldest is married to the Earl of Lichfield, a second to the Earl of Durham, a third to the Duke of Buccleuch, a fourth to the Earl of Mount Edgumbe, a fifth to the Marquis of Blandford, eldest son of the Duke of Marlborough, and a sixth to the Marquis of Lansdowne.

General O'Neil, late Fenian generalissimo in the raid upon Canada, has written a pathetic letter from his dungeon at Burlington, complaining of his utter destitution. He says he has not got "a dollar to fee a lawyer, or a cent to buy a newspaper, stationery, or postage stamps."

Temperature in the shade, and Barometer indications for the week ending Tuesday, July 26, 1870, observed by John Underhill, Optician to the Medical Faculty of McGill University, 299 Notre Dame Street.

		9 A. M.	1 P. M.	6 P. M.
Wednesday, July 20	.....	81°	85°	82°
Thursday, " 21	.....	77°	84°	80°
Friday, " 22	.....	78°	86° 5	82°
Saturday, " 23	.....	74°	86°	80°
Sunday, " 24	.....	82°	93°	76°
Monday, " 25	.....	80°	87°	78°
Tuesday, " 26	.....	78°	86°	80°
		MAX.	MIN.	MEAN.
Wednesday, July 20	.....	87°	64°	75° 5
Thursday, " 21	.....	86°	70°	78°
Friday, " 22	.....	89°	61°	75°
Saturday, " 23	.....	88°	68°	78°
Sunday, " 24	.....	96°	67°	81° 5
Monday, " 25	.....	89°	70°	79°
Tuesday, " 26	.....	88°	62°	75°

Aneroid-Barometer compensated and corrected.

		9 A. M.	1 P. M.	6 P. M.
Wednesday, July 20	.....	30.14	30.10	30.04
Thursday, " 21	.....	30.02	30.08	30.15
Friday, " 22	.....	30.24	30.26	30.05
Saturday, " 23	.....	30.12	30.12	30.08
Sunday, " 24	.....	30.05	29.95	29.98
Monday, " 25	.....	30.12	30.10	30.10
Tuesday, " 26	.....	30.12	30.05	30.00