Shanghai—Southampton, via Canada

retained by the superimposed blanket. It is clearly advisable to use a second blanket for this purpose, even if some space is thereby sacrificed.

Conclusions.

(1) It is possible to sterilize water bottles to the number of 100 per load in the Lelean sack.

(2) It is not necessary to take special measures to keep them apart, as steam will succeed in finding its way into them however tightly they are packed.

(3) The sack must be closed by at least one, and preferably with several, blankets. Although it is evident that the outermost layers of the last blanket are not sterilized, it has been shown that a temperature of 100° C. is reached just below it.

Travel.

SHANGHAI—SOUTHAMPTON, VIA CANADA.

By Major F. R. H. Mollan, M.C.

Royal Army Medical Corps.

(Continued from p. 232.)

Arriving at Field there was just enough daylight left to appreciate the lofty Mount Stephen (10,485 feet) towering 6,000 feet higher than the little town.

 Shortly after leaving Field we entered the "Spiral Tunnel," one of the most noteworthy engineering feats in existence. The track enters the first tunnel, 2,890 feet in length, under Mount Ogden (8,795 feet). Turning part of a circle and passing over itself it comes out 45 feet higher up. Crossing the river it enters the second tunnel, 3,206 feet in length under Cathedral Mountain (10,454 feet). Here again it turns almost a complete circle and passing over itself emerges another 48 feet up. These wonderful tunnels have reduced the gradient between Field and "The Great Divide" from 4 5 per cent to 2 2 per cent. The whole thing is a perfect maze, the railway doubling back upon itself twice and forming a rough figure "8" in shape.

Unfortunately it was dark when we passed the "Great Divide," so we could not see it. It is the highest elevation reached by the railway (5,338 feet), is the boundary between Alberta and British Columbia, and the very backbone of the continent. It is marked by a rustic arch spanning a stream which divides. The water that flows to the east eventually reaches Hudson's Bay and the Atlantic; the rivulet that runs to the west adds its mite to the Pacific.
For all practical purposes we had now said goodbye to the Rockies. We regretted not seeing something of Banff—a Mecca for tourists from all over the world—and also Lake Louise, which is said to be probably the most perfect gem of scenery in the known world.

But what a day we had had! Panorama after panorama of varying and surpassing loveliness, engineering feats that took our breath away, and air that would make the gloomiest pessimist glad to be alive!

The next morning found us out on the prairies of Alberta—with just a faint outline of the Rockies on the skyline behind us. "The Limitless Prairie" seems a fitting title for these great expanses—stretching away in even and unbroken leagues to the far horizon. Homesteads are passed here and there—lonely looking little places with the nearest neighbours miles away. One was given furiously to think what "medical arrangements" existed for these hardy farmers, particularly in winter when the prairies are covered in deep snow and communication such as we know it is impossible. A few wild-looking horses cocked up their ears and scampered away at the approach of our train, but otherwise there is no sign of life for mile after mile. Presently, however, homesteads become more numerous and we run into Medicine Hat, a pleasant little town situated on the banks of a branch of the Saskatchewan River. Here we have a welcome twenty-five minutes to stretch our legs and get a glimpse of this busy little town with its electric light, good roads, and modern buildings alongside those of the earliest "frontier" days.

One of the worst features of such a long railway journey is the almost total lack of exercise, and on an average twenty minutes morning and evening was the most we got throughout the five days. The trains also have a little way of quietly stealing out from a station without warning unless one is near enough to hear the conductor's "All aboard," and so one rarely dare venture beyond the station precincts.

This, the second day of our run, was somewhat of an anti-climax after the previous day—mile after mile of hot dusty prairie till we wearied of the monotony and were glad to "pull into" Moose Jaw in the evening for another twenty minutes' break. Moose Jaw is a very go-ahead little place with excellent shops, electric light, etc. We had our twenty minutes' exercise here all right, for my American friend, tired of the heat and prohibition, craved a "drop of the cratur" and rushed from street to street looking for a "hooch-dive." Finally he ended up by asking a policeman, but it was no good and we returned to the train, my friend raving at "pussy-foots" and prohibition laws alternately.

We were now in the heart of the great grain province of Saskatchewan and continuing our journey reached Winnipeg early next morning. We had covered just on 1,500 miles since leaving Vancouver and were practically halfway across the Continent. Winnipeg is Canada's third largest city and is the greatest grain market and grain inspection point in the British Empire. It is the railway centre of Western Canada and
Shanghai—Southampton, via Canada

commands the trade of the vast region to the north, east and west (fig. 7). It is beautifully situated at the junction of the Red and Assiniboine Rivers and is, of course, the capital city of Manitoba. As we had a halt of nearly two hours here (the longest of the whole journey) we were able to see something of this great city. We were surprised to find how hot it was, for even before 9 a.m. on this September morning walking made one uncomfortably warm—this in contrast to the bitter winter when a friend of mine had his nose frost-bitten while taking a twenty minutes’ walk! A short account of the history of Winnipeg may not be out of place, evidencing, as it does, the extremely rapid growth of these western cities and towns. La Verendrye, the first white man to set foot in Winnipeg, arrived in 1738, and built Fort Rouge, now part of the city. In 1806, Fort

Gibraltar was built by the North-West Trading Co.; in 1822, when the North-West Company amalgamated with the Hudson’s Bay Co., that Fort was rebuilt and named Fort Garry. In 1835 Fort Garry was rebuilt in stone. Though this was an important trading centre for the Western plains, the population of Fort Garry, as late as 1871, was only 215! Today the population of Greater Winnipeg is 283,100, and the city itself 199,500. The city is handsomely built, one of the most notable structures being the provincial Parliament Buildings; it is also the seat of the University of Manitoba and the Manitoba Agricultural College. Immense workshops of the Canadian Pacific Railway are situated in Winnipeg, and
the railway has also the two largest train yards in the world. One yard has 121 miles of track. The second is even larger, as it includes seventy tracks with a total mileage of 165 miles. In connexion with this yard development the Canadian Pacific has a transfer elevator of a million bushels capacity. These grain elevators are an arresting feature of each station passed in the grain area.

Leaving Winnipeg at 10 a.m., we had by noon passed out of the prairies and were running through a delightful country of woods and lakes. What a relief from the heat and dust which had made the open platform of the observation car (where one could sit and smoke) well-nigh impossible! Halfway between Winnipeg and Fort William is Lake of the Woods, one of the finest tourist resorts in America. This body of water, fringed with unspoiled woods, covers an area of nearly two thousand square miles. Its scenery is distinctly primitive, bold rock and innumerable islands associated with a wealth of forest growth. At Kenora we passed the principal outlet of the Lake of the Woods, where the lake pours its waters into the Winnipeg River by three distinct cataracts. Woods and lakes were passed in an unending panorama until late in the evening we arrived at Fort William. The "twin cities" of Port Arthur and Fort William, situated on the northern shores of Lake Superior, together constitute Canada's greatest grain port. The bulk of the huge grain crops of the Canadian West are hauled hither by freight cars, transferred to lake steamers and carried down the great lakes to Buffalo and other ports. As many as 369,000,000 bushels of grain have passed through these two cities in a year. The total capacity of the thirty-six public terminal elevators is 64,610,000 bushels! Fort William (population 43,000) is situated at the mouth at the Kaministiquia River, and was formerly a very important Hudson Bay Co.'s post, being a great rendezvous of the hunters, voyageurs, and chief factors of the company.

We were now in the Province of Ontario, a province three and a half times the size of Great Britain and twice the size of France, with a population of three millions. Its immense production of minerals, particularly nickel and copper, has already made it world famous; it is rich in timber, and possesses a great clay belt containing many million acres of famous farming land of great promise. Agriculture in this district, however, is still in the pioneer stage. Our journey the next day was continued through a country of woods and lakes, hills and rocks. In this bush country, where rivers and lakes are so frequent, game of all kinds is abundant, moose and red deer being plentiful. Indeed, viewed from the train, it looked a hunter's paradise.

At midday we "pulled into" Chapleau, an important railway divisional centre, and were glad to get another welcome "promenade," if only for fifteen minutes. A curious sensation is experienced on alighting from the train after these long runs—hardly giddiness and more nearly approaching the feeling of being aboard ship—as though the ground was rocking
slightly. At Chapleau is situated the only hospital between Fort William and Sudbury, a distance of 553 miles. Leaving Chapleau we passed quaint little stations with melodious Indian names, Pogamasing meaning "Shallow gravel rapids," Metagama, "A river widened into a lake," Bicotasing, "A narrow filled with waterlilies, connecting two lakes," and Nemegosanda, "The river where the trout live." Presently we passed the high falls of the Vermilion River, creamy, foaming water cascading far below the train, a lovely sight. Towards evening we ran down a valley where there is a stretch of rich farming country unusual in this hilly rocky region, but it was only a temporary break, and we were soon back again amidst the rocks, lakes and woods. Nearing Sudbury, we began to see evidences of the nickel industry, and soon passed the Murray Mine of the British American Nickel Corporation. Sudbury (population 9,000) is in the centre of the world's greatest nickel deposits, a source of incalculable wealth. A belt of some thirty miles by sixteen miles is estimated to contain anything up to five hundred million tons of combined nickel and copper. From mines and smelters in this district the International Nickel Company, the Mond Nickel Company, and the British-American Nickel Corporation ship to their refineries in Canada, New Jersey and South Wales. Sudbury supplies over two-thirds of the world's consumption of nickel. Close by is the immense Moose Mountain Iron Range, which contains one hundred million tons of iron ore. Backed by these tremendous resources, it is not surprising that the streets and buildings of Sudbury are those of a city! Near Sudbury is the junction with the Canadian Pacific main line from Toronto. We had now reached the evening of the fourth successive day of train travel, and were eagerly looking forward to the morrow and the end of our long trans-continental run. We were up betimes next morning, and breakfasted early as we were due in at Montreal at 8.30 a.m. The woods and lakes had given place to what might easily be part of the English home counties, and there is a look of these about the farms set in fields with "hedges"! Shortly before arriving at Montreal, we crossed a large viaduct over the Ottawa River which here joins the St. Lawrence. At Montreal we have to change for Quebec, and so must leave the train which had carried us quickly and punctually 2,885 miles in four days. Unfortunately, time did not permit of our seeing very much of the chief city and commercial metropolis of Canada. Montreal stands on an island formed by the St. Lawrence and Ottawa Rivers, on the site of the ancient Indian village of Hochelaga; and not only enjoys the distinction of being a great ocean port nearly a thousand miles inland, but in point of foreign commerce is the second port of North America. It is 150 miles above salt water, but the mighty St. Lawrence forms a highway upon which ocean-going steamers ascend. The city has a far-reaching trade and great manufacturing establishments; many fine buildings and numerous churches, convents and hospitals. Notre Dame can accommodate 10,000 worshippers, and has been known to have
housed 15,000. Montreal is the largest bilingual city, and the fourth largest French-speaking city in the world; over half the population of Greater Montreal (900,000) speak French as their mother tongue. Prominent from every part of Montreal is Mount Royal, a large and beautiful public park with, nestling in the shelter of the mountains, the famous McGill University. Historically, although it lives so strictly in the present, Montreal is as interesting as Quebec. The village of Hochelaga was visited by Jacques Cartier in 1535, and in 1642 Maisonneuve established a settlement called "Ville Marie." Wars with the Indians, and later wars with the English, did not interfere with Montreal's growth. In 1760 it was the last stand of the French after Wolfe had defeated Montcalm at Quebec.

But our train was waiting to take us to Quebec, another 173 miles by rail. And here we found a feature of railway travel new to us, for by paying a booking fee of 1 dollar we reserved an armchair in what is known as the "Parlor Car." These cars are very comfortable, and are literally observation cars, with armchairs which can be swung round to any position desired.

Leaving Place Viger Station we travelled north across the Island of Montreal, over the foaming waters of the Rivière des Prairies to Ile Jesus, and then in a few minutes to the Rivière des Milles Iles, which is crossed to the mainland. From the bridges magnificent views were obtained; the rivers, which in reality are two forks of the Ottawa River, are broad and swift at this point, with tumultuous rapids and deeply indented, heavily wooded shore lines. From the bridges we got glimpses of vast rafts of logs, some with temporary huts for the lumber men erected upon them. Our route now lay across the lowlands which stretch between the St. Lawrence and the hills. This plain is cut into narrow strips which are, apparently, characteristic of French-Canadian farmlands. There are two reasons for the peculiarly shaped farms. One is that the continual subdivision of bequeathed estates left no alternative, the other is that a water front was absolutely necessary to each farm, so they extended in long strips, thus giving each farmer a narrow frontage on the river. All along one is struck by the conspicuous part the Church plays in village life. Everywhere the church and the presbytery are the most prominent buildings in the compact little villages one files past so quickly.

At last, tired and travel weary, we reached Quebec and the longed-for bath—we were literally black after the long journey! A taxi whirls us off to the Château Frontenac Hotel—at once a perfect hotel and architectural gem. It has been erected on the site of a building far famed in Canadian history, the Château of St. Louis, and the builders have reproduced in every stone the architecture of the eighteenth century (fig. 8).

Quebec (population 120,000) was the birthplace of North America, and with its name are linked those of the heroic priests, soldiers and pioneers who established civilization in the New World. The first white man to visit Quebec was Jacques Cartier, in 1535, but it was not until 1608 that a
city was founded by Samuel de Champlain. For a century and a half thereafter Quebec was the headquarters of French rule in America, contending with the New Englanders for domination. In the middle of the eighteenth century, the destiny of Quebec changed abruptly, for in 1759, at one of the most famous battles in history—that of the Plains of Abraham—the British defeated the French, and four years later were ceded Canada.

We luckily had a whole evening here, and so were able to see a good deal of this romantic city. Disdaining a taxi, we engaged a fiacre, complete with Jehu who might have stepped from a Paris boulevard, and set out to see the sights. The good Jehu proved an excellent guide, and soon passing the fine Parliament buildings we reached the Citadel, and had a fine panoramic view of the St. Lawrence and harbour stretched out below. A few minutes later and we were on the historic Plains of Abraham, with its impressive monument erected to Generals Wolfe and Montcalm. By a curious coincidence not only were Wolfe and Montcalm killed in the famous battle but their respective successors met the same fate in the next engagement. Here was pointed out to us the spot where the British landed and the cliffs they had to scale—a remarkable feat and one that could hardly have been accomplished but for the fact that the French had thought such a mode of approach impossible. Another fine view of the St. Lawrence was here obtained, with in the distance a magnificent bridge carrying the railway across the river. Crossing the Plains of Abraham we viewed yet another fine monument erected to the joint memory of the British and French generals who succeeded Wolfe and Montcalm. Looking northward from here is a fine view of the valley of the St. Lawrence, with the Laurentian Mountains in the background. We were
now in the residential district, and might have been in a town of France itself; but the light was going, and we had to hurry on to see something of the city, which retains much of its old French tradition. The architecture of the city is French, with some buildings of the eighteenth century, others more modern but carefully built in an artistic attempt to duplicate the essentially French strain of the old. The older part of Quebec is indeed quaint, with its steep cobbled streets, confusion of high gabled roofs, its quiet alleys, its convents, churches, monks, inhabitants, leafy squares and its countless statues—all giving an Old World individuality to a city steeped in history and romance. Two great cities, Montreal and Quebec, typifying at once, as it were, two eras in Canada's history, the new and the old—cities of which Rudyard Kipling wrote:

"Peace is our portion. Yet a whisper rose
Foolish and causeless, half in jest, half hate.
Now wake we and remember mighty blows,
And, fearing no man, wait."

TRANS-ATLANTIC.

Next day we embarked on the "Empress of Scotland," the Canadian Pacific's premier ship. Here we "took over" again our heavy baggage which had come safely across the continent as though by magic—another instance of the thoroughness and thought for the comfort of passengers which is so typical of the greatest transportation company in the world.

Large crowds had assembled at the quay to give a hearty send-off to T.R.H. the Prince of Wales and Prince George, who were returning by the "Scotland" following their Canadian tour.

We were forty-one steaming hours (nearly 1,000 miles or a third of the voyage) on the St. Lawrence. So wide is the river that we had soon lost sight of its banks and might have been in the open sea. Indeed, this was the worst part of our journey, for here we came in for the tail end of a bad storm, though the Atlantic itself proved calm as the proverbial millpond.

Cherbourg was reached on the morning of September 14, and that afternoon found us steaming up Southampton Water under dark clouds and a scurry of rain.

Coming up the Solent we could see in the distance at Spithead the "Nelson" and "Rodney," and some of our Canadian companions seemed faintly amused at the interest and excitement we showed in seeing these mighty ships for the first time. Smiles, however, turned to interest when we explained what these two vessels stood for—the Navy that protects the trade routes to and from the Dominion, not alone Atlantic but Pacific!

Southampton at last—we had covered roughly 11,500 miles since leaving Shanghai, had crossed two oceans and a mighty continent, and, incidentally, completed a circle of the world.