RIVER COMMERCE OF SIBERIA

How It Has Developed the Country and Made Industrial and Social Progress Possible.

KRASNOIARSK, Siberia, Sept. 1.—Our train trundled into this city on time this morning, which was the first favorable sign of a day that has proved fruitful of interest and satisfaction. Krasnoiarsk is not very much of a city, as far as population is concerned, but it is a place where things are happening pretty rapidly, and one of the most attractive towns I have seen along the railway. It is almost as old as Tomsk, having been established as a fort in 1628. The town is most favorably located, on the left, or west, bank of the Yenisei River, occupying a triangular peninsula between that great flood and the Katcha River, which flows into it here. The town is high above the rivers, but the shipping and other industries come down to the water's edge on both streams. The population of the town is nearly 20,000.

A low bridge gives passage westward across the Katcha River to the opposite shore, where a suburban village occupies the river bank. Far above is a great hill, rising to a height of several hundred feet, called the Tokmak, on the summit of which is some sort of an ancient shrine. No road leads to the top of this hill, except some hardly definable tracks over the grassy slope, and it took the driver of my droshky nearly an hour, to zigzag his way to the summit. Once there the view was superb—by all means the most striking that I have seen in Siberia. To the west swept the endless succession of alternate prairies and forests that make up this enormous country, the single track of the railway traceable for miles by the embankments and the cuts through hills or forests. Spread out at the base of the hill, just across the Katcha, lay Krasnoiarsk, beautiful at that distance, however mean its houses might be on close inspection, its cathedrals and public buildings rising into prominence among the hundreds of low log houses. Looking beyond the town, the Yenisei spread out to a noble stream, spanned by the new railway bridge, which measures more than 3000 feet from end to end. On the other side of the river the railway wound its way into the hills, and the view was closed in that direction by the range, which contains some of the richest gold mines in Siberia.

It was this river that made the lasting impression in the landscape. As far as one could see the broad valley extended north and south, bearing the waters on their way from the melting snows of the mountain ranges which form the boundary between the Russian and the Chinese empires, northward to the Arctic Ocean. In all the thousands of miles of its course this is the only bridge, unless some mountain tributary is crossed by a footpath, before the stream becomes a river, and this bridge came only because the railway came.

The rivers of Siberia are the most notable of the physical features of the country, and the most generally known. Probably every one remembers out of the geography of his school days that Siberia has three great rivers flowing northward into the Arctic Ocean, in succession from the Ural Mountains eastward, respectively, the Obi, the Yenisei and the Lena. These wonderful interior water systems have been of even more importance, if possible, in forwarding the conquest, settlement and colonization of Siberia than were the Great Lakes and the Mississippi River systems to America. Krasnoiarsk, on the Yenisei, is a fortunate place for noting some facts about these rivers.

Tributaries of these great rivers and others yet to be mentioned so nearly approach each other in the heart of Asia that from the earliest times the waterways were used by adventurous explorers or invaders who were making their way across the country. Portages were necessary in passing from one system to another, but they were no longer and no more difficult than the portages in Illinois that led from the rivers which flowed into Lake Michigan to those flowing into the Mississippi River. Though the general course of these Siberian streams is to the Arctic Ocean, owing to the gradual northerly slope of the entire northern portion of the Asiatic Continent, the tributaries reach the main streams from the southeast and southwest at such an angle that the journey can be made right across the continent by these nearly connected highways of Nature. From the Ural Mountains to Yakutsk, a distance of not less than 4500 miles, it is possible to pass by the rivers with but two short portages.

The Obi an Important River.

The Obi, most western of the great Siberian rivers, has been the most important factor in the communication with the interior of the country. Rising in Mongolia, it has a course of 2500 miles, a drainage area of more than 1,500,000 square miles, and upon the river and its tributaries a regular navigation system is in operation over more than 10,000 miles. Formed by two great rivers, as it is, the Irtish and the main stream, which relate much as do the Missouri and the Mississippi, it provides uninterrupted navigation all the way from the Ural Mountains to Tomsk, a distance by the course followed of about 1500 miles. The first voyage of a steamer over this entire route was accomplished in 1846, and seven years later a regular line was established. In 1861 steamers went up the Irtish as far as Semipalatinsk, and in 1865 a steamer went up the Chulim River, an affluent of the Obi, to Achinsk, now a station on the Siberian Railway half way between this city and Marilnsk. At present regular service is in effect, by excellent river steamers, from Tiumen, at the base of the Urals, to Tomsk, by way of Tobolsk, and from Tiumen by way of Tobolsk and Omsk to Semipalatinsk, far up the Irtish River and almost at the base of the Altai Mountains and the Chinese frontier. In addition there are two branch lines continuing upstream from Tomsk, one on the Obi and Bill Rivers to Bilsk, and the other on the Obi and Chulim to the Town of Chulim. These destinations are nearly 700 miles above Tomsk.

Many hindrances have existed to prosperous river trade, but in spite of the handicaps the total has been great. Of the freights from Tiumen about one-fourth has been shipped up the Irtish River to Omsk and the other towns on that route and three-fourths to Tomsk and the neighboring settlements. The rivers are frozen for several months in the year, and during the long seasons of low water, traffic is interrupted at times. Sometimes the steamers cannot reach Tomsk and Omsk at all, except with the greatest difficulty, and at such times of course shipping on the smaller tributary streams is quite out of the question. It is calculated that there are four months of free navigation without delay, and sometimes that period is extended. The rivers never have been improved to very great extent. Proper records and observations of the rise and fall have not been made, beacons and lights are absent, the channel is cared for only by the personal effort of the companies operating on the rivers, the government having paid virtually no attention to that matter. The erection of a telegraph line along the course of the Obi and the Irtish Rivers would be of great value in affording a means for communicating rapidly the condition of the channels at different points and the indications of the rise and fall of the depth of water or the conditions of freezing and ice jams.

The Second Great Stream.

The Yenisei, on the banks of which Krasnoiarsk stands, is the second of these great Siberian rivers. It, too, rises in the mountains of Mongolia, and is navigable almost from the Chinese frontier to its mouth. Steam navigation on this river began in 1863, but was slow of development because the traffic was isolated, having no direct connection with the business of European Russia. By this time there are a dozen or more steamers in service, a large number of boats of other sorts and perhaps 50 barges. Western Siberia, which is served by the rivers of the Obi system, has a population of approximately 2,000,000 inhabitants in an area of about 1,000,000 square miles, while central Siberia, with as large an area, has less than one-fourth as many inhabitants. This fact offers another simple explanation why the traffic on the Yenisei system, which serves central Siberia, is far behind that of the Obi and its tributaries. The regular lines of freight and passenger steamers on the Yenisei are those plying downstream from Krasnoiarsk to Yeniseisk, and upstream from Krasnoiarsk to Minusinsk, each of these routes being between 300 and 400 miles in length.

The Yenisei has a tributary which compares with the parent stream in volume about as the Irtish does with the Obi, and contributes likewise to the importance of its prospective navigation. This is the Angara, which enters the great river from the east at the City of Yeniseisk. The Angara is the outlet of Lake Baikal, flowing from that lake through the City of Irkutsk. Its general course then is northward and westward, through a distance of nearly 1500 miles, to its union with the Yenisei. Inasmuch as the Angara is a large river when it leaves Lake Baikal and receives many important tributaries from the area which it drains, it is of great consequence in the navigation system of central Siberia. If its course were not interrupted by a long succession of rapids steamers could ply all the way to Irkutsk. For 450 miles from Lake Baikal, through Irkutsk and down the Angara to the prison of Bratsk, the river is readily navigable, but from that point to the confluence with the Yenisei the rapids will have to be cleared out a great deal before the channel is practicable.

Two Great River Systems.

These two great river systems which have been described reach the Arctic Ocean through well-defined estuaries—the Gulf of Obi and the Yenisei Gulf, respectively. The third of the northward-flowing rivers flows into the Arctic through a wide-spreading delta, which became famous to American readers after the loss of the Jeannette and the terrible experiences of the survivors. The Lena River and its drainage area are far to the north of the regions watered by the other rivers, as well as far to the eastward. So remote is it from the more thickly settled parts of Siberia that it has figured but little in the development of the country. Yakutsk, the most important town on the river, has been one of the most notable of the exile centers, and a sentence to that distant region has seemed the extreme of severity. There are, however, a few small steamers on the river, and some day, perhaps, it will have its share in the commerce of the country. It is navigable for about 1500 miles. In the long route of the Siberian Railway the line crosses a dozen of the navigable tributaries of the Obi and the Yenisei, as well as those two great rivers themselves. In fact, one of the most visible breaks in the monotony of the journey is the crossing of the successive long bridges which span these floods. The Lena, however, is entirely north of the route of the railway, and none of its tributaries reaches down to the line of travel. It cannot contribute, therefore, as the other two do, to the commerce of the line, nor can it serve as a route by which the traveler north or south of the railway may reach the adjacent parts of the country.

Beyond Lake Baikal are two rivers which reach the Arctic Ocean by way of the Yenisei. These are the Upper Angara and the Selenga. The former flows into Lake Baikal at the north, draining a considerable region which is rich in mineral and forest wealth. The stream serves for the floating of rafts and barges which bring the products of the district to the town at the mouth of the river. The other river, more important from the shipping point of view, is the Selenga, which enters Lake Baikal not far from its southern extremity, after a course of hundreds of miles through Mongolia and Southern Siberia. The Selenga is sufficiently navigable to contribute a large Chinese trade to the Siberian Railway, which it intersects at the town of Verkhne-Udinsk. This exhausts the list of rivers of note in the Arctic Basin. The Amur, which is such an important factor in the journey across Siberia, and on which I expect to spend nearly two weeks on the way to the Pacific Ocean, I shall leave to be described at that time.

English in Siberia.

Here in the middle of Siberia I have found hospitality at the genuine English home of a genuine English family, the only one of the sort I have seen since I left St. Petersburg, nearly three months ago. The presence of Mr. C. J. Keighley in this remote place is due to the existence of one of the most interesting commercial undertakings that can be found anywhere.

English navigators were the pioneers of exploration in the seas north of Russia and Siberia, seeking in the 16th century to find a northeast passage to China. English traders were given the monopoly of commerce in the White Sea by the creation of the Muscovy Company. In 1580 English sailors reached the Kara Sea, into which flow the Obi and Yenisei Rivers, and met Russian vessels there. In spite of this it had become virtually an accepted fact that communication with Siberia by the waters of the North was impossible, and the voyages had ceased long before the present century. Now the Arctic Ocean and the great Siberian rivers are the avenues of communication for a regular and an important trade between England and Siberia, and an English manager in Krasnoiarsk represents an English capitalist of London in the administration of this central office. The change has come as a result of the daring and the generosity of a few men.

It was an enterprising Siberian of the name of Sidorov who began the agitation which resulted in opening this route of communication. He argued, from the communication which was frequent between the inhabitants near the mouths of the Siberian rivers, that it would be just as possible to establish through lines of vessels. He began to present this matter as early as 1853, but so powerfully had the learned geographers of the world convinced themselves that the scheme was chimerical that little attention was given to his arguments at first. Even when Sidorov offered a large reward to the first vessel which would enter the mouth of the Yenisei and bring back a cargo of graphite, no one was tempted. Not for nine years was the first effort made to test the truth of his calculations, and then the voyage, under the command of Kruzenstern, was not successful. It was sufficient, however, to convince those who accompanied it that the Kara Sea was not icebound. The Russians refusing to be interested, Sidorov went to Sweden, where Baron Nordenskjold became very friendly to the idea. In 1869, after 16 years of agitation, Sidorov himself sailed from Cronstadt, but, halting near the mouth of the Pechora River to save a British steamer in distress, he lost his chance and had to turn back after scoring a failure.

The next step in the activity of Sidorov brought its practical results. The indefatigable Siberian published in Petermann's geographical magazine an offer of a reward of £2000 to the first navigator who should make the sea passage from Europe to the mouth of the Yenisei River. The offer came to the notice of an English sailor, Captain Wiggins, whose name now is famous in Siberia, and he decided to try for that valuable prize. Wiggins loaded the steamer Diana with a cargo such as the country might demand, and in 1874, upon his first attempt, he reached the mouth of the Obi and the Yenisei and returned safely to England, where the reward was paid him. The next year Baron Nordenskjold made the voyage, and, leaving his vessel at the mouth of the Yenisei, ascended that river to Yeniseisk by boat and returned home by land routes across Siberia and Russia. The possibilities of the route were sufficiently demonstrated and the prospects of trade stimulated voyages. The Russian Government shared this influence by offering to remit a large portion of the import duties on all goods brought into Siberia by way of the Arctic Ocean and the rivers, and this made the matter take a definite commercial form.

The names of Wiggins, Nordenskjold and Sidorov are the ones to be noted as the important factors in opening this far Northern route to commerce. The latter gave 20 years of his life and large sums of money in urging the possibilities of establishing profitable communication in this way. I am not sure that he ever made the voyage himself, but his vessels were in the trade for some years. One of them, the Northern Light, was wrecked. Another, the Dawn, was built in Yeniseisk, sailed down the Yenisei River to the Arctic Ocean, and thence safely to St. Petersburg. Trapeznikov's steamer, the Louisa, sailed from Hull, passed through the Kara Straits, entered the Obi River and ascended as far as Tobolsk on the Irtish with a cargo of iron and oil. During the same summer—1878—the rich merchant Sibiriakov chartered the steamer Frazer in Bremen and landed a cargo of tobacco, sugar and machinery at the mouth of the Yenisei. Two other steamers entered the mouth of the Obi with colonial wares and iron goods, in exchange for which they took cargoes of wheat and hemp, and others entered the Yenisei. Sidorov's work had brought fruit.

Baron Nordenskjold maintained his interest in the same undertakings for several years. With two steamers, the Lena and the Vega, he sailed into the Arctic in 1878. The Lena entered the mouth of the great river of the same name and ascended it to the town of Yakutsk, a distance of 1800 miles from the mouth. The Vega almost reached Behring Straits before being stopped by the ice, and the next Summer, continuing the voyage, completed the first northeast passage from the Atlantic to the Pacific Ocean, for which the Dutch and English navigators of the 16th century had striven.

In spite of the fame of Sidorov and Nordenskjold, it is the name of Wiggins that is best known in Siberia. This bluff and daring English sea captain put his prize money and his energy from that time forward for many years into the business which he had virtually started. After making several voyages of his own, he interested English capital in the enterprise, and a company was formed to trade into the interior of Siberia by the river route. For several years Wiggins spent his Winters in stimulating the courage of his partners in the scheme, and his Summers in making voyages, some of them successful and some not. The first steamer in the regular service sailed from Newcastle in 1887, reaching Yeniseisk without difficulty, but, owing to an unfortunate selection of goods for the Siberian trade, the venture was unprofitable. Lessons had been learned, however, of the conditions to be met, and the next year the steamer Lebrador was fitted out. It was to go to the mouth of the Yenisei and there exchange cargoes with the Phoenix which had been left on the river to gather Siberian products. Losses were again incurred and the company wound up its affairs. Other Englishmen organized a second company, with the energetic Wiggins as a factor, but that enterprise, too failed, though it is declared that the failure was due to an unfortunate succession of ill-luck rather than to anything insurmountable in the trade. Controversies rose, however, in which Wiggins became involved in charges and counter-charges, and at last he abandoned his years of work to develop a commercial route into Siberia by way of the Kara Sea and the great rivers, and departed for South America, where he is said to be trading now, between the West Coast and the South Sea Islands. He is a picturesque figure in the history of Siberia, and a modern type of the British merchant adventurers of the sort who formed the advanced guard of the Hudson's Bay Company and the East India Company.

Trade on Commercial Basis.

Today the trade is on a genuinely commercial basis. It has fallen into the hands of Mr. F. W. L. Popham, of London, a millionaire merchant with the spirit of commercial adventure, and, in spite of a succession of years of losses, there is every reason to believe that the enterprise has reached the paying stage. Mr. Popham has sunk more than $500,000 already in his effort to prove that profit is awaiting the successful management of the undertaking. He has depended upon local management here until recently, but two years ago he sent out Mr. Keighley from London, and I am inclined to believe that the change of policy marked the turning point.

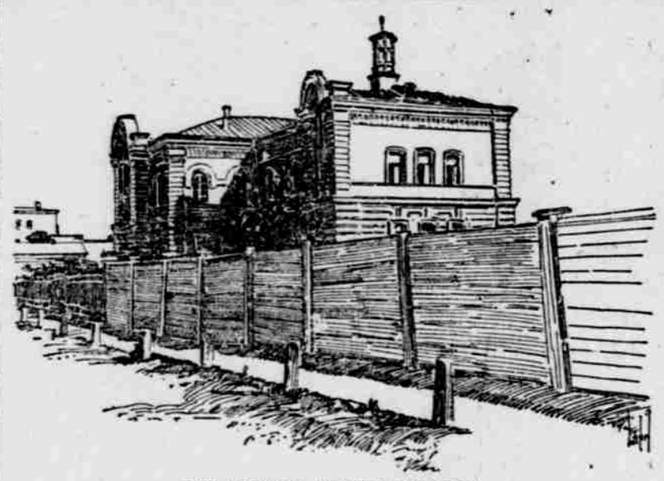
Every one in Krasnoiarsk knows the English Trading Company, the name of Popham and the resident manager. I found Mr. Keighley in a big log house that was all Siberian without and all English within. The maid at the door was a Siberian, but her cap and apron were of London. The furniture and pictures and carpets were from "home." Mrs. Keighley came in from a ride dressed in the habit of an English lady. And the host himself was the tallest, blondest and most typical of English gentlemen. Outside the house, in the rear, the scene was of another sort. The great warehouse opens into a yard which reminds me of a prison pen stockaded with logs, and in the yard and warehouse is the most astounding collection of things for sale that it is possible to conceive. The stock is low just now, because it is nearing the end of the season, and the steamers have not arrived yet this summer, but the variety is still sufficient to entertain. The warehouse contains almost all the kinds of goods which one would expect to find in a hardware store, a store of agricultural implements and a wholesale grocery, and a lot of miscellany which I am unable to classify. In rummaging about at will I found a new fire engine, electric-light globes, lamps, kerosene cans, coffee, windmills, plows, steam engines, printing presses, sewing machines, china and glassware, churns, nails and screws, sugar, carpenters' tools, woodenware and tubs and buckets of paper composition, tobacco, barbed wire in great quantities, olive oil, English preserves and pickles, wine, American canned goods, and altogether a stock of goods that would more than satisfy a general store in any crossroads town of the United States. Things are here, Mr. Keighley tells me, that have been here ever since the first cargo arrived, and they will never be sold, because they were not wisely chosen for this market. The things that come annually now, however, are well cleaned out before the supply is replenished, which means that the most important lesson has been learned.

Some Picturesque Features.

The trade has some peculiarly picturesque features, and to me the most notable of these is the uncertainty of the arrival of the goods. When the annual steamers leave Hull or London for Siberia, Mr. Keighley, of course, receives notification by telegraph and mail. The boats leave London near the end of July, steam into the Kara Sea and reach the mouth of the Yenisei River, all going well, in three weeks. Before that time, Mr. Keighley dispatches his fleet of river boats down stream, so that they will be waiting at the mouth of the river when the British steamers arrive. Then the goods are transferred to the light-draft barges, in tow of steamers, and the larger vessels turn about and sail for London, while the river fleet moves up the Yenisei.

Some three weeks after, Mr. Keighley, here in Krasnoiarsk, gets a telegram saying that the steamers have arrived in London, and that on a certain day they saw the other fleet start up the Yenisei from the Arctic Ocean. That is the last word that can be received until the river steamers actually arrive at Krasnoiarsk. When luck is good, the voyage from the mouth of the river requires about five weeks, and so, at the expected time, every one in the city is waiting to see the cargoes come in. They may be one or two weeks late, and they may not come at all. Sometimes they are caught in the ice if the delays have been too great, and there they stay all winter, half-way to the Arctic ocean, resuming their voyage in the Spring when the ice goes out of the river. Under those circumstances, the manager here has nothing to do but to wait. He has no way of getting word from the frozen-up cargoes, but he knows if Winter comes and the boats do not, that they are safe in the ice. Sometimes, if they are not too far down the river, a messenger will come, in order that London may be notified of the exact condition, but sometimes nothing is heard till the next Summer. When the boats do come, be it the end of September or the first of the next June, the first warning is the shriek of the whistles from the steamers that are towing the barges, as they sweep around the great bend of the Yenisei. Then the whole of the population of Krasnoiarsk rushes down to the wharves to see the boats come in, scores of men are employed to rush the cargoes under shelter, and the warehouse is heaped full of the new wares from England.

TRUMBULL WHITE.



BOYS' SCHOOL AT KRASNOIARSK.

RMANENT CIRCUS AT KRASNOIARSKBUILDING IN CONSTRUCTION FOR PE

TORE UP INSIDE TRACK.

But Engine Rounded Curve After the Raiders in Safety.

"The wreck on the valley road is regarded as something of a curiosity in the line of casualties," said an old engineer to a reporter of the New Orleans Times-Democrat, "because the cars left the rails in the inside instead of the outside of a curve. As every schoolboy knows, the tendency of a body moving in a circle is to fly away from the center, by the operation of centrifugal attraction. The consequence is that a train of cars going around a curve at a good gait will be certain to hug the outside rail, and if it happens to jump the track one would naturally infer that it would be on the side where the pressure is greatest. For some reason or other, however, the train on the Valley road reversed the accepted order of things, and took a header in the opposite direction, all of which reminds me of a singular bit of history.

"It may surprise some of you younger gentlemen when I say that an incident based on the principle I have just described played a star role in what was possibly the most dramatic passage of the entire Civil War. I refer to the pursuit of Andrews' raiders, when they made their desperate dash through North Georgia to destroy railroad communication with Chattanooga.

"The raiders, as you know, stole a freight train at Marietta, Ga., and started northward at top speed. They were pursued almost immediately by a detachment of our boys on a locomotive, and then ensued the most thrilling running fight on record. Time and again Andrews and his men attempted to obstruct the track behind them, but they were so hard pressed that they were obliged to take to their train before they could do the work. At last they made a spurt that gave them a few moments' breathing space and tore a short section of rail out of a curve. Their pursuers were coming on full tilt and it seemed absolutely certain that they would be ditched when they reached that point, but, incredible as it may appear, they passed straight over the gap and held their way as if nothing had happened.

"The explanation of the seeming miracle was simply that the raiders in the excitement of the moment had taken the rail from the inside instead of the outside of the curve, and when the locomotive swung around, it was going so fast that all its weight was practically on the sound iron. In other words, centrifugal attraction saved the day, and instead of burning the Chattanooga bridge, Andrews was caught and hanged as a spy. If it hadn't been for that fatal blunder in removing the rail, the raiders would doubtless have accomplished their purpose, and what such a disaster would have meant to the Confederacy gives the imagination unlimited leeway for speculation."

VAST SUMS WAGERED.

London Gaming-House of Last Century—The Clubs of This.

There were in 1724 in London alone, 35 well-known gambling-houses, says the Saturday Review. Nearly all respectable West End clubs were originally gambling-houses, as was the Cocoa Tree, which is still flourishing as a club at 64 St. James street. One night, late in the last century, there was a case at hazard, the difference of which was £18,000.

That present pink of perfection, "White's," was perhaps the most appalling gambling-house in Europe. "The young men of the age," says Walpole, "lost there £10,000, £15,000, £20,000 in an evening." The play at this club was only for rouleaux of £50 each, and generally there was £10,000 in gold on the table. The gamesters began by pulling off their embroidered clothes and put on frieze garments, or turned their coats inside out for luck. They put on pieces of leather to save their lace ruffles, and to guard their eyes from the light and to prevent tumbling their hair, wore high-crowned straw hats with broad brims, and sometimes masks to conceal their emotions.

Almack's afterward was known as the Goose Tree Club—a rather significant name—and Pitt was one of its most constant frequenters, and there met his adherents Gibbon was also a member when the club was still Almack's—which, indeed, was the name of its founder and original proprietor.

CENSUS OF LIVESTOCK.

Special Attention This Year—How Cattle Have Increased.

WASHINGTON, April 11.—The livestock interests of the United States are to be given special attention in the twelfth census. In previous enumerations the livestock on farms and ranges have been enumerated on the farm schedule, but all other livestock have been disregarded. This limitation interfered with the correctness of the census figures and resulted in misrepresentation of an important element in national wealth. To remove the difficulty Congress has passed a law, approved February 1, 1900, which allows the Director of the Census to collect "information concerning the number and kinds of livestock not on farms."

For this purpose a special schedule has been prepared by the Census Office, on which all livestock not on farms or ranges are to be reported by the barns or inclosures in which they are kept. By combining the results of this schedule with those on the farm schedule, the office should obtain a full and accurate picture of the livestock conditions of the United States, June 1, 1900.

This improvement will be of value not merely for itself, but because the Department of Agriculture each year makes an enumeration or estimate of the number of livestock in the country, by correspondence with its thousands of special agents scattered over the United States. Now, in January, there are few young animals, and prices of livestock are high. For both reasons the average valuation per head obtained by the Department of Agriculture enumeration tends to exceed the truth. On the other hand that department confines its attention to farms and ranges, omitting livestock in barns and inclosures. The latter class are worth rather more on the average per head than the former. These two sources of error thus tend to counterbalance.

The animals are to be classified by age, somewhat as the people of the United States, but of course with much less detail. The special schedule classifies the neat cattle into those under 1 year and those over 1. The second class is divided into steers, bulls and cows, the steers being subdivided into those 1 and under 2, 2 and under 3, and over 3; the cows being classified into those 1 and under 2, and those over 2, the latter being subdivided into those kept for milk and those not kept for milk.

Horses and mules are classified as those under 1, those 1 and under 2, and those over 2. Sheep are classified into those under 1 and over 1, with the distinction in the latter class into ewes and rams and wethers. The other classes of livestock, namely, asses and burros, swine and goats, are not classified by age.

The object of this grouping of livestock is to furnish some basis for estimating the probable increase of horses, mules, cattle or sheep in the near future. The widening of the inquiry to include livestock not on farms or ranges has the same end in view, namely, to afford a survey of the whole livestock interests of the country, since animals are constantly passing from the farms or ranges to the barns or enclosures and back.

The following table, derived from the statistics of the Department of Agriculture, shows the way in which the number of livestock has been increasing within the last two years:

Number of livestock on farms and ranges:

	1898.	1899.	1900.
Sheep	37,457,930	39,114,423	41,848,065
Milch cows..	15,849,986	15,940,115	16,292,360
Other cattle..	29,264,197	27,994,725	28,610,054
Mules	2,257,165	2,140,213	2,181,027
Horses	13,960,911	13,665,107	13,557,124
Total	98,940,619	98,895,313	101,408,630

Increase in two years—

Sheep	4,226,135
Milch cows	451,374
Total	4,677,579

Decrease in two years—

Other cattle	1,654,143
Mules	171,638
Horses	423,787
Total	2,249,168

It will be noticed that the estimated number of livestock, excluding swine, goats, asses and burros, in the country has increased over 2,500,000 in the last two years, and it must be borne in mind that these figures apply to farms and ranges only.

The value of the same classes of livestock, according to estimates from the same source, has increased both because the number has grown and because the value per head has risen, the net addition to the wealth of the country from this source in the last two years being nearly one-third of a billion dollars. The total value on this National asset at the present time, including, with these classes of livestock asses and burros, swine and goats, and the animals off the farms and ranges, is probably not less than $3,000,000,000.

TRAVELERS' GUIDE.

O.R.&N.

Union Depot, Sixth and J Streets.

TWO TRAINS DAILY FOR ALL POINTS EAST

"FAST MAIL AND PORTLAND-CHICAGO SPECIAL ROUTE."

Leaves for the East via Spokane daily at 3.45 P. M. Arrives at 8:00 A. M.

Leaves for the East, via Pendleton and Huntington, daily at 8:00 P. M. Arrives, via Huntington and Pendleton, at 6:45 P. M.

THROUGH PULLMAN AND TOURIST SLEEPERS.

Water lines schedule, subject to change without notice:

OCEAN AND RIVER SCHEDULE.

OCEAN DIVISION — Steamships sail from Ainsworth dock at 8:00 P. M. Leave Portland—Columbia, Monday, April 2; Thursday, April 12; Sunday, April 22; Wednesday, May 2; Saturday, May 12. State of California, Saturday, April 7; Tuesday, April 17; Friday, April 27; Monday, May 7.

From San Francisco — State of California, Tuesday, April 3; Friday, April 13; Monday, April 23; Thursday, May 3; Sunday, May 13. Columbia, Sunday, April 8; Wednesday, April 18; Saturday, April 28; Tuesday, May 8.

COLUMBIA RIVER DIVISION.

PORTLAND AND ASTORIA.

Steamer Hassalo leaves Portland daily, except Sunday, at 8:00 P. M.; on Saturday at 10:00 P. M. Returning, leaves Astoria daily, except Sunday, at 7:00 A. M.

WILLAMETTE RIVER DIVISION.

PORTLAND AND CORVALLIS, OR.

Steamer Ruth, for Salem, Albany, Corvallis and way points, leaves Portland Tuesdays, Thursdays and Saturdays at 6:00 A. M. Returning, leaves Corvallis Mondays, Wednesdays and Fridays at 6:00 A. M.

Steamer Modoc, for Salem, Independence and way points, leaves Portland Mondays, Wednesdays and Fridays at 6:00 A. M. Returning, leaves Independence Tuesdays, Thursdays and Saturdays at 8:30 A. M.

YAMHILL RIVER ROUTE.

PORTLAND AND DAYTON, OR.

Steamer Elmore, for Dayton and way points, leaves Portland Tuesdays, Thursdays and Saturdays at 7 A. M. Returning, leaves Dayton for Portland and way points Mondays, Wednesdays and Fridays at 6 A. M.

SNAKE RIVER ROUTE.

RIPARIA, WASH., AND LEWISTON, IDAHO.

Steamer Spokane or steamer Lewiston leaves Riparia daily at 1:30 A. M., arriving at Lewiston at 12 o'clock noon. Returning, the Spokane or Lewiston leaves Lewiston daily at 8:30 A. M., arriving at Riparia same evening.

W. H. HURLBURT, General Passenger Agent.
Y. A. SCHILLING, City Ticket Agent.
Telephone Main 712.

New Steamship Line to the Orient

CHINA AND JAPAN, FROM PORTLAND.

In connection with THE OREGON RAILROAD & NAVIGATION CO. Schedule, 1900 (subject to change):

Steamer.	Due to Leave Portland.
"ABERGELDIE"	March 23
"MONMOUTHSHIRE"	April 11
"BRAEMAR"	May 2

For rates, accommodations, etc., apply to DODWELL & COMPANY, Limited, General Agents, Portland, Or.
To principal points in Japan and China.

THE FASTEST AND MOST DIRECT LINE TO THE EAST AND SOUTHEAST IS THE UNION PACIFIC THE OVERLAND ROUTE WORLD'S PICTORIAL LINE.

The Direct Line to Denver, Omaha, Kansas City, St. Louis Chicago and Other Eastern Points

TWO DAILY SOLID VESTIBULED TRAINS.

Portland to Chicago Less Than Three Days.
Only Four Days to New York and Boston.

Through Palace and Tourist Sleepers, Buffet Library Cars, (Barber Shop) Dining Cars, (Meals a la carte) Free Reclining Chair Cars.

Through tickets, baggage checks, and sleeping car accommodations can be arranged at

CITY TICKET OFFICE
135 Third Street. Portland, Oregon
J. H. LOTHROP, Gen'l Agent. GEORGE LANG, City Pass. & Tkt. Agt.

FOR CAPE NOME

The Magnificent Trans-Pacific Passenger Steamship

TACOMA

Registered tonnage, 2311 tons; capacity, 4000 tons; passenger accommodations, 100 first class, 300 second class. This steamship has just been released from the government service as a troopship, and has every modern comfort and convenience and is the largest steamship in the Cape Nome trade.

Will sail from Tacoma and Seattle on or about the 25th of May.

For rates and full information apply to DODWELL & CO., LTD.
Telephone, Main, 96. 253 Oak Street.

Astoria & Columbia River Railroad Co.

LEAVES UNION DEPOT.	For Maygers, Rainier, Clatskanie, Westport, Clifton, Astoria, Warrenton, Flavel, Hammond, Fort Stevens, Gearhart Park, Seaside.	ARRIVES UNION DEPOT.
8:00 A. M.	Astoria and Seashore Express, Daily.	11:15 A. M.
7:00 P. M.	Astoria Express, Daily.	9:40 P. M.

Ticket office, 255 Morrison st. and Union depot.
J. C. MAYO, Gen. Pass. Agt., Astoria, Or.

WHITE COLLAR LINE

COLUMBIA RIVER & PUGET SOUND NAVIGATION CO.

PORTLAND AND ASTORIA.

BAILEY GATZERT (Alder-street dock)

Leaves Portland daily every morning at 7 o'clock, except Sunday. Returning, leaves Astoria every night at 7 o'clock, except Sunday.
Oregon 'phone Main 351. Columbia 'phone 351.
U. B. SCOTT, President.

CAPE NOME VIA DAWSON

Alaska Steamship Company

NEXT SAILING, DIRIGO, APRIL 25.

The only company having through traffic arrangements to Atlin and the Klondike. Weekly sailings from Tacoma. For full information apply to J. L. HARTMAN, Agent, Portland, Or., 3 Chamber of Commerce.

TRAVELERS' GUIDE.

EAST VIA SOUTH

SOUTHERN PACIFIC COMPANY. SUNSET, OGDEN & SHASTA ROUTES

Leave	Depot Fifth and I Streets	Arrive
	OVERLAND EXPRESS TRAINS for Salem, Roseburg, Ashland, Sacramento, Ogden, San Francisco, Mojave, Los Angeles, El Paso, New Orleans and the East	
*8:30 P. M.		*7:45 A.M.
*8:30 A. M.		*6:30 P. M.
	At Woodburn (daily except Sunday), morning train connects with train for Mt. Angel, Silverton, Brownsville, Springfield and Natron, and evening train for Mt. Angel and Silverton.	
*4:00 P. M.	Albany passenger	*10:10A.M.
‡7:30 A. M.	Corvallis passenger	‡5:50 P. M.
‡4:50 P. M.	Sheridan passenger	‡8:25 A. M.

*Daily. ‡Daily except Sunday.

Rebate tickets on sale between Portland, Sacramento and San Francisco. Net rates $17 first class and $11 second class, including sleeper.

Rates and tickets to Eastern points and Europe. Also JAPAN, CHINA, HONOLULU and AUSTRALIA. Can be obtained from J. H. KIRKLAND, Ticket Agent, 140 Third st.

YAMHILL DIVISION.

Passenger Depot, foot of Jefferson Street.

Leave for Oswego daily at 7:20, *9:40 A. M.; 12:30, 1:55, 3:25, 4:40, 6:25, 8:30, 11:30 P. M.; and 9:00 A. M. on Sundays only. Arrive at Portland daily at *6:35, 8:30, *10:50 A. M.; 1:35, 3:10, 4:30, 6:15, 7:40, 10:00 P. M., 12:40 A. M. daily, except Monday, 8:30 and 10:05 A. M. on Sundays only.

Leave for Dallas daily, except Sunday, at 5:05 P. M. Arrive at Portland at 9:30 A. M.

Passenger train leaves Dallas for Airlie Mondays, Wednesdays and Fridays at 2:45 P. M. Returns Tuesdays, Thursdays and Saturdays.

*Except Sunday.

R. KOEHLER, Manager. C. H. MARKHAM, Gen. Frt. & Pass. Agt.

Burlington Route

Roses on The Train.

No wonder the Burlington's dining car service is popular. The linen is spotlessly clean, the waiters prompt, the food the best the markets afford.

Best of all, on each table is a gorgeous bouquet of flowers—grown in the company's own greenhouses at Aurora, Ill.

Dining cars on all our Denver-Chicago trains, on our night train from St. Paul to Chicago, and (after May 1) on our through train from Portland to Kansas City and St. Louis by way of Billings, Mont.

Ticket Office,
100 3rd St., cor. Stark, Portland, Oregon.

R. W. FOSTER, Ticket Agent.
GEO. S. TAYLOR, City Passenger Agent.

GO EAST VIA OREGON SHORT LINE RAILROAD

ON THE FAMOUS

Chicago - Portland Special

And Travel in Luxurious Comfort

Dining Cars. Service a la Carte.
Library-Buffet Smoking Cars.
Palace and Ordinary Sleeping Cars.
Free Reclining Chair Cars.

The only train running through solid from Portland to Chicago. No change of cars. Every car illuminated with Pintsch gas.

Leaves 8 P. M., Portland. Arrives 6:45 P. M.

CITY TICKET OFFICE
124 Third St. Phone Main 563
W. E. COMAN, General Agent. J. R. NAGEL, City Ticket Agt.

THE GREAT NORTHERN

Ticket Office: 122 Third St. 'Phone 680

LEAVE.	The Flyer daily to and from St. Paul, Minneapolis, Duluth, Chicago and all points East.	ARRIVE.
No. 4 3:45 P. M.		No. 3. 8:00 A. M.

Through Palace and Tourist Sleepers, Dining and Buffet Smoking-Library Cars.

JAPAN - AMERICAN LINE

STEAMSHIP RIOJUN MARU

For Japan, China and all Asiatic points will leave Seattle

About April 25th.

Pacific Coast Steamship Co.

FOR ALASKA

THE COMPANY'S elegant steamers, Cottage City, City of Topeka, and Al-Ki leave TACOMA 11 A. M., SEATTLE 9 P. M., April 5, 10, 15, 20, 25, 30; May 5, 10, 15, 20, 25, 30; June 4, and every fifth day thereafter. For further information obtain company's folder.

The company reserves the right to change steamers, sailing dates and hours of sailing, without previous notice.

AGENTS—N. POSTON, 249 Washington st., Portland, Or.; F. W. CARLETON, N. P. R. R. dock, Tacoma; J. F. TROWBRIDGE, Puget Sound Supt., Ocean dock, Seattle.
GOODALL, PERKINS & CO., Gen. Agts., S. F.

WASHINGTON & ALASKA STEAMSHIP CO.

Steamship "CITY OF SEATTLE" will leave Seattle at 8 P. M. on Tuesday, April 3, and every 10 days thereafter, for Vancouver, Ketchikan, Juneau and Skagway, making trip from Seattle to Skagway in 72 hours.

For freight and passage inquire of
DODWELL & CO., LIMITED, AGENTS.

EMPIRE LINE

SEATTLE

CAPE NOME

Yukon River Points

S. S. "OHIO," 3500 tons, after two years' service as U. S.