

COMMERCIAL IMPORTANCE OF CANALS



THE KIEL CANAL

The American tourist who flits rapidly and carelessly across the continent of Europe, looks upon the canals of the countries he passes through as being in the main mere picturesque features that add to the interest of the landscape, but have been rendered practically obsolete in a commercial sense by the building of railways. He sees barges upon them, to be sure, and in winter he is delighted by the sight of the people of Holland skating along the frozen water courses. But he would be astonished if he knew the important part the canals and canalized rivers, play in the economic life of European nations.

Canals, as they were originally constructed, cannot compete with railroads, but as the latter have spread over the land, the waterways have been altered to meet the new conditions. Their chief mission in these days is to connect the centers of population and industry with the coast—to make them seaports—and this has been accomplished to an extent that is surprising to the uninitiated.

The pressure of international competition is mainly responsible for the extensive improvement of waterways in the continental European countries that have the highest degree of industrial development. Every manufacturing country, district or city, if it is to prosper, must be able to meet this competition and to assemble materials as cheaply as possible from all parts of the world, and be provided with facilities for placing its goods cheaply and readily upon the chief domestic and foreign markets. The countries of the continent, recognizing this, have adopted the policy of providing with equal care for the development of both railroads and waterways. In Great Britain, on the contrary, with the exception of two canals in Scotland, the inland waterways, both rivers and canals, have been improved and are operated by corporations. The British government is considering the advisability of changing its policy toward waterways.

Of all the continental countries, France has spent the most on canal navigation. Her extensive plans for waterway development, adopted in 1875, provided for a system by which the waterways should be all connected with each other, and with the chief centers of population and industry. They are mainly owned or controlled by the state, but when in 1906 a law was passed providing for the construction of new waterways, it stipulated that the beneficiary parties or localities must advance at least half of the total cost. The interests making this contribution are permitted to recoup themselves from tolls or dues, and from a monopoly of providing towage or traction. Three canals, one from Cette to the Rhone, one from Marcellus to the Rhone, and one from the canal du Nord—are now being constructed under these conditions.

The most important of the commercial waterways of France is the Seine river, and there is an immense traffic upon it between Havre and Rouen and Paris. At large expense it has been canalized and provided with locks and lateral canals, while other canals connect the river through its tributaries with the Loire, the Rhone, the Rhine, the Meuse and the Scheldt. Another elaborate system of main and lateral canals that carries a vast tonnage to Paris connects the capital with Dunkirk and Gravelines, and between Paris and the Belgian and German frontiers there is a perfect network of waterways. The western and southern parts of the country are nearly as well provided with canals. The Canal du Midi, which, running from Bordeaux to Cette, connects the Bay of Biscay with the Mediterranean, enables the former city to supply the whole of southern France with the products of foreign lands, and of the French colonies which it imports.

In connection with this Canal du Midi, the French government has long under consideration a most interesting and important project—nothing less than to convert the waterway into a ship canal by which sea-going vessels and the warships of France could pass from the Atlantic to the Mediterranean without being exposed to the violent storms of the peninsula coast and without passing through the Straits of Gibraltar. The people of France never lose sight of the possibility of war with Great Britain, and this ship canal plan appeals to them especially because it would relieve their navy from the necessity of



LOCK AND POWERHOUSE, KIEL CANAL



AN OLD CANAL AT ANTWERP FOR COAL TRAFFIC



EAST END, KIEL CANAL. SHIPS ENTERING LOCK, MANCHESTER CANAL



BRUNNENHAVEN, A STEAMER UNLOADING GRAIN

THE MANCHESTER TERMINUS OF THE CANAL

steaming under the thousand guns that arm King George's tremendous fortress on the rock. So the project seems almost equally important from a commercial and a military view, and doubtless will be carried out.

Altogether, France has nearly 3,000 miles of canals and 5,000 miles of navigable rivers, and in the last 25 years the rate of increase as regards tonnage and ton-mileage has been more rapid on the waterways than on the railroads.

In the Rhine and the Elbe, Germany possesses two commercial waterways of the first magnitude. The Rhine is navigable for small river steamboats

as far as Basel, just across the Swiss frontier, and small sea-going steamers ascend it as far as Mannheim. This mighty river has been improved by the Germans at a cost of more than \$12,500,000, and its waters bear an immense traffic in coal, iron ore, iron and steel manufactures and other heavy freight. The Rhine valley, dotted with picturesque ruined castles and saturated with legend and romance, is also one of the busiest districts in all Europe, for it is densely populated and contains numerous important industrial cities. Canals connect the Rhine with the Meuse, Seine, Rhone, Danube and Elbe rivers. The Rhine-Rhone canal follows the course of the river from Strassburg almost to Basel, and is generally used instead of the river.

The Elbe is second only to the Rhine in commercial importance. It is navigable throughout its whole course in Germany and along it lie some of the chief silver and coal mines, salt fields, sheep pastures and beet-root areas in the empire. Moreover, it links Berlin, the capital, with Hamburg, the chief port, by the canals of the Havel and Spree river systems.

The Weser, the Oder, the Vistula and other rivers are of great importance as commercial highways, and go to make up Germany's grand total of nearly 6,000 miles of navigable rivers, of which about 1,400 miles are canalized.

Germany's canals are many, their total mileage being something like 1,500, and large sums are spent on their improvement. The most important internationally is the great North Sea and Baltic ship canal, which traverses Schleswig-Holstein, saving two days' time by steamer between Hamburg and all the Baltic ports of Germany. This canal was begun in 1857 and was opened to traffic in 1895, and is a source of much pride to Emperor William. The Ludwigs canal in Bavaria united the Danube with the Main, thus supplying a continuous waterway from the North sea to the Black sea. The Plauen canal connects the Elbe with the Havel, and there are systems connecting the Oder with the Elbe and the Memel with the Pregel.

age are small so that rates are very reasonable and the total of heavy traffic is large.

Through close and effective study of economical transportation, Belgium has built up an excellent system of canals and canalized rivers, 29 in number. These are used partly for transportation and partly for irrigation. Both the Meuse and the Scheldt are navigable throughout their entire length in Belgium, and many of their tributaries have been canalized. In addition to these natural advantages, there are canal systems that unite Brussels and Louvain with the Ruppel, Brussels with Charleroi and Mons with Conde. Then, too, there are two fine ship canals which by uniting Ghent and Bruges with the sea coast have restored to those cities much of their old time commercial importance.

Mention of Holland instantly cre-

ates a mind picture of canals, and indeed that little land of dykes and ditches is completely cut up into small islands by its extensive system of waterways. They cross and interlace one another like the threads of some large fishing net. The North Holland canal was considered, until recently, to be the finest of the kind in Europe. The southern part of the country is especially favored by nature, for the Rhine, entering Holland, divides up into numerous arms, the chief of which are the Waal, the Lek and the Yssel. The Meuse joins the Waal, thus mingling its waters with those of the Rhine, and all of these rivers carry an immense traffic. Four-fifths of the river trade of Holland is carried on the Rhine and the Waal. The Scheldt has its estuary mainly in Holland and carries ocean vessels to Antwerp.

his work. And although he might not have admitted it were he charged with it, I knew he was afflicted with a disorder of the digestive apparatus that always accompanies vegetarianism. He was, in fine, the victim of a prejudice that left him unequal to the work he was compelled to do, and which he was doing at the expense of his health, happiness and success in the world in which he moved.

Upon what grounds does the practice of vegetarianism rest its claims? The answer is, on no grounds whatsoever, unless it be those of the man who has an "idea" that if he looks over his left shoulder at the moon, or sees a black cat on the thirtieth day of the month, he is dead sure to have bad luck.

And yet it is only when it is ridden to death as a hobby that vegetarianism can be charged with inanity. When it is practiced occasionally and for a limited time, and at irregular intervals, it becomes the useful servant of scientific intelligence. There is a "soul of truth" in vegetarianism, as there also may be, so far as you or I know to the contrary, in the belief that if you see a black tabby on Friday the thirtieth, you will lose regularly at poker for some considerable time thereafter. This soul of truth takes us backward a bit in the natural history of man.

The primitive ancestors of European races, like the savage races of the present time, were naturally fitted for, and therefore "needed," a certain amount of irregularity in their feeding. Sometimes game would be plenty, and sometimes it would be scarce. When it was scarce, or not to be had at all, those primitive ancestors of ours were necessarily limited to a starvation diet. They were very hungry, and their hunger made them keen on

Owing to the level condition of the country, the construction of a canal in Holland involves but comparatively little labor and expense. Many of the canals are used constantly as substitutes for public highways, and in the winter their frozen surfaces offer convenient roads for the skaters who throng them on their way to and from market and about their various occupations. So complete is the canal system that by means of it a resident of Rotterdam could breakfast at Delft or The Hague, dine at Leyden and sup at Amsterdam, or return to his home before nightfall. Since not only the surface but the beds of many of Holland's canals are above the level of land, the drainage is of the greatest importance. This is effected by means of pumps worked by the windmills that are such a characteristic feature of the Dutch landscape. The banks of the canals are maintained by the families that live along them, each being assigned a portion to keep in repair.

Emory R. Johnson, professor of transportation and commerce in the University of Pennsylvania, who recently made a study of European waterways, as the special representative of the National River and Harbor congress, calls attention to the way in which Germany, France, Holland and Belgium have co-operated in establishing standard dimensions for their canals and barges, and connecting their systems. In this manner the through shipment of international traffic has been facilitated. "Another feature of the waterway policy of these European countries," he says, "is that care is taken to provide waterways with adequate terminal and harbor facilities, and to make such physical connections between railroads and waterways at all inland harbors as to guarantee the easy and economical transfer of traffic from cars to boats and water to rails. It is realized that terminal facilities and rail connections are an essential part of the projects for making waterways useful as reliable channels of adequate width and depth. The Rhine river, for instance, has 62 harbors equipped as fully as commercial needs require, with storage and transfer facilities. At 43 of these terminals the direct transfer of goods from trains to boats and river to rail is possible. Many of the harbors include large basins, some of which are used for the transfer and storage of commodities, while others are constructed to enable big industrial plants to locate on water frontage. Each city constructs its own harbor with but little, if any, aid from the state, the expense being borne by the city, aided in some instances by private interests."

WILL LOOK TO CANADA FOR WHEAT

ONE REASON WHY AMERICANS GO TO CANADA.

In the Chicago Inter-Ocean of a few days since reference was made to the fact that in 1909 the United States raised 737,189,000 bushels of wheat, and last year grew only 695,443,000, a decrease of 41,746,000 bushels. The article went on to say: "True we raised last year more than enough wheat for our own needs, but it is apparent that if production continues to decrease in that ratio we will soon be obliged to look to other countries for wheat to supply our rapidly increasing population."

The purpose of the article was to show that reciprocity was to be desired. This is a question that I do not propose to deal with, preferring to leave it to others who have made a greater study of that economic question than I have. The point to be considered is, with the high price of lands in the United States, and with the much lower priced lands of Canada, and their ability to produce probably more abundantly, is it not well for the United States farmer to take advantage of the opportunity Canada affords with its lower-priced lands and take a part in supplying the needs of the United States, which it is quite apparent must come sooner or later? It is probable there are now about 300,000 American farmers in Western Canada, cultivating large farms, and becoming rich, in the growing of 25- and 30-bushel-to-the-acre wheat, in producing large yields of oats and barley, and in raising horses and cattle cheaply on the wild prairie grasses that are there, both succulent and abundant. All these find a ready market at good prices. Amongst the Americans who have made their homes in Canada are to be found colonies of Scandinavians, and all are doing well. I have before me a letter from an American Scandinavian, now a Canadian, an extract from which is interesting. Writing from Turtle Lake, Saskatchewan, he says:

"I came up here from Fergus Falls, Minn., October 24th, 1910, and thought I would let you know how I have been getting along. We had a very mild winter up to New Year's, but since then it has been quite cold and lots of snow, but not worse than that we could be out every day working, even though we had 65 below zero a few times, but we do not feel the cold here the same as we did in Minnesota, as it is very still and the air is high and dry. This is a splendid place for cattle raising and mixed farming. There is some willow brush and small poplars on part of the land, which is rolling and covered with splendid grass in the summer. Not far from here there is timber for building material. There are only 8 Norwegians here, 6 Scotchmen, 2 Germans. The lake is 20 miles long and full of very fine fish.

"There is a lot of land yet that has not been taken and room for many settlers, and we wish you would send some settlers up here, as there are fine prospects for them, especially for those who have a little money to start with. Send them here to Turtle Lake, and we will show them the land, if they have secured plots, showing the vacant lands, at the Dominion Lands office in Battleford. Send us up some good Scandinavians this spring."

The Canadian government agents will try to meet his wishes.

Poor Tom.

A very youthful and entirely unknown musical composer read some verses by the renowned Thomas Moore which he liked very much. Fortwith the buzz of inspiration circulated through his brain, and the next thing he knew he had evolved a tune which went Irish prettily with the words of the Irish poet. Much elated, the very youthful composer took the product to a publisher of popular songs and sang it to him. The publisher shook his head.

"The music's all right," he opined, "but the words are bum."

With a smooth iron and Defiance Starch, you can launder your shirt-waist just as well at home as the steam laundry can; it will have the proper stiffness and finish, there will be less wear and tear of the goods, and it will be a positive pleasure to use a Starch that does not stick to the iron.

Home Training.

Robert—Come here to me instantly!

Robert—Aw, shut up!

Mother—Robert, how dare you talk to me like that! Say: "Mamma, be quiet."

Constipation causes and aggravates many serious diseases. It is thoroughly cured by Dr. Pierce's Pleasant Pellets. The favorite family laxative.

A woman's mind enables her to reach a conclusion without starting.

Heartburn!
DID YOU SAY?

Then you really need
Hostetter's Stomach Bitters

It tones the stomach,
aids digestion, prevents
after eating distress.

Don't suffer any longer.
Take home a bottle to-day
and be able to enjoy your meals.

It is also excellent for
Malaria, Fever and Ague.

Solely Prepared by
Wm. S. Hostetter, Lowell, Mass.

How Vegetarianism Hurts Us

By M. A. LANE, SC. B.,
(Former Research Fellow in Physiology, University of Illinois.)



I sometimes despair for the future of the human race when I see some poor man or poor woman trying to worry along through an all-too-limited and not over-joyous life on a diet that is fit only for guinea pigs, rabbits and kine.

I have no quarrel with the vegetarian or with his "principles." In fact, I don't know and have never been able to find out just what his principles are. But I'm sorry for him. I once knew a young man who was trying to do the very hardest kind of work—the mixed kind, which is physical and mental, too—on a diet that a healthy rabbit would hesitate about adopting unless absolutely unlimited. This young man would make a breakfast of a bit of bread, a small plate of boiled rice, and a glass of water; he would luncheon on a small quantity of butter-beans, or some other equally insubstantial airy nothing, and then he would top off the day with a piece of cake and a cup of tea—always weak tea, too.

Occasionally he would go on what might be called a veritable "feeding bat," and would wildly dissipate on two bananas for breakfast, boiled rice with green corn and an apple for luncheon, and a

"lentil cutlet," with two bananas for dinner! And after this desperate plunge into the flesh pots of Egypt he would always feel as gully as if he had just robbed a safe and could hear the police coming to take him in.

You couldn't persuade that young man that he was slowly but certainly killing himself. Had you stood him up before all the physiologists of the world, to be assured by them not only on their reputation as men of science, but on their decency and honor as men, that that sort of a diet was never "intended," by any scheme of nature or any deity imaginable, for the human machinery of digestion, he would probably have come out of the seance with a vague idea that somehow or other they were just trying to fool him for some hidden and vicious purpose of their own.

It would be a good thing if all men and all women were early in their youth put through a course of study—no actual study, from the thing and not from the book, which is worse than useless, not even being useless on the vast differences between the plant-eating animal and that of the meat-eating, or omnivorous, animal, such as man.

The young vegetarian mentioned above was very brave; as brave as anybody could be in such circumstances and on such a diet, but he would often look with longing eyes on the steaks and chops his companions consumed at table, while he himself was studiously punishing himself with rice and other wholly unsavory dishes. Also he was rather dim of eye and not specially active on his feet or at

Alpine Death Toll Large

Hundred Tourists Killed on Lofly Peaks Last Year Due to Climbing and Plucking Flowers.

According to statistics furnished by the German-Austrian Alpine Association, there were in 1910 just 100 fatal Alpine accidents, to which must be added 28 lives lost through plucking Alpine flowers and similar "semi-Alpine" pursuits, so that the total number of deaths for the year amounted to 128, as compared with 144 in 1909. The very unfavorable weather prevailing last year prevented many tourists from making ascents, and this probably accounts for the decrease in the accidents recorded. Of the victims, 19 were climbing alone and 62 had friends or guides with them. Sixty-six fell from rocks or grass slopes, 12 slipped on snow or ice, 3 fell into crevasses

Blames Accent for Change

American Minister Declares English Clergymen Are Displacing Them Owing to Their Odd Speech.

The minister smiled.

"First we got Dr. Chrales F. Aked from Liverpool," he said, "and now another alien preacher is coming to New York from Birmingham. If this keeps on, our metropolitan churches will soon be as foreign as our metropolitan opera."

Contrary Signs.

"What made you think Jiggsby was the goat in this affair?"

"Because he seemed so sheepish about it."

Blames Accent for Change

"I know what makes us bring these men over here. It's their accent. New York is foolishly enamoured of the English accent."

"We natives say 'ut' for 'it,' 'dawg' for 'dog,' 'derby' for 'bowler,' 'wast' for 'blouse,' 'cawfee' for 'coffee,' 'clerk' for 'clark,' and we have a number of colloquialisms about 'making reservations' and 'delivering the goods' and

Boats and Clams to Let

"Creeping in, they drive us out, and the British preacher, with his 'cabn'ts' and 'fabsts,' gets our jobs."

Claims for Temporary Use.

"I came across an old sign down by the shore the other day," observed the Long Islander. "The old chap who has lived and done business there for half a century has painted up over his door:

"BOATS AND CLAMS TO LET."

—New York Press.