CHAPTER XXIX

ROBINSON CRUSOE'S LESSON

ROBINSON CRUSOE, every one will remember, found a good log and made himself a fine boat in which he deemed escape from the island perfectly feasible. It was a good boat. It was so light that once in the water, he could have taken it anywhere water ran by oar or sail.

But he forgot the principle which must control transportation all over the good ship Earth if her passengers are to get out of her management the products called for by the needs of multiplying humanity. He forgot that a weight is a thousand times more easily moved when afloat, than when ashore. He could not put his boat in the water. And though it was a perfectly good boat, he was forced to see it rot away by lapse of years, because he could neither take it to the sea nor bring the sea to it.

When a weight is floated in water it is more easily moved than under any other circumstances of transportation. By this simple truth the big facts of history are explained. It explains why Greece and Rome became great, why the greatest nations of antiquity were grouped about the shores of the Mediterranean, why Japan is so wonderful, why the Northmen overspread the western world, why the "meteor flag of England" means so much, why Russia is so undeveloped interiorly, why Holland and Belgium are the marvels of the world, and why Denmark has been able to make the tillers of waste sand-dunes the richest people in Europe in per capita wealth. It accounts for the desert steppes of Siberia and Canada and interior Australia. It has determined the status of South America and Africa as the Dark Continents. It holds Iowa back in development as compared with Illinois, and tells Iowa to step before South Dakota. It strings great cities along waterways like pearls. All these things are explained by the simple physical fact that if a thing is to

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be moved with the greatest possible ease it must be floated in water. The hinterlands of the world may build their dugouts, but unless they are able to place them in the water, their work will be futile.

The railway has been invented for the purpose of solving Crusoe's problem. But it is still an open question whether the far backlands can ever be fully developed by land carriage—even the railway is so much more expensive a thing for moving things than the waterway. On a good waterway it is profitable to carry a ton a thousand miles for a dollar; but the railways of the United States are obliged to collect about seven dollars and fifty cents on the average, for the same service. Coal and ore are carried on the Great Lakes more than two thousand miles for a dollar per ton. Coal is shipped by water from Cleveland to Duluth for less money than it would cost to have it shoveled down cellar if it lay in the alley by the cellar window.

The world went daft over the railway and has allowed that greatest of all inventions in

land carriage, first, to fall into private ownership, and second, to destroy the commerce of the inland waterways. Both were vital errors; and both are being remedied in most civilized countries. Great Britain had a good system of canals when the railway was perfected and allowed them to lapse into slimy disuse. In the United States the Erie Canal had saved the west, and canals were paralleling many of the streams leading over and beyond the Appalachian Mountain system, when the energies and the capital of the nation were diverted to the new Eldorado of railroading. To a greater or less extent, the same thing took place all over the world save in Holland and China.

How could the railways destroy the commerce of the inland waterways if the carriage of goods by rail is so much more expensive? A very pertinent question, but not a difficult one. The railway runs over hills and mountains, while the waterway can be constructed only where water runs or can be made to run. The railway ran to the heart of every village,

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while the waterway stopped at the waterside. The railway had freight houses and passenger stations with agents and attendants, while the waterway was allowed to offer nothing but a bare wharf, or an earth landing. In spite of the superiority of the waterways when their freight was once afloat, many of them were so badly off for equipment that it cost more to get freight up and down the banks and into the towns than the railway freight amounted to, high though that might be. Moreover, the railways had organizations, all more or less predatory and unscrupulous, and made active war on the waterways. The waterways had no fighting power. The railways could carry freight at a loss for a while between points affected by water competition, and make it up on traffic which was at the railway's mercy through lack of all competition. So by ways various and devious the railways put most of the canals and rivers out of business.

The world is coming back to waterways, and the future must see to the utilization for

commerce of every stream which can be made to furnish water for locks and dams. When the world is fully developed, the stream which is not also a waterway will be the exception, and not the rule. The railways will be operated for the main purpose of getting the heavy freight to the nearest water, and there setting it afloat. The streams will be developed as a national system, with standard depths, and capacity of locks, to accommodate standardized water craft. Every riparian town and village will have its harbor, equipped with freight-handling machinery which will render cheap the cost of taking on and discharging freight. Railway cars will be made with detachable bodies, built sometimes as a whole, and sometimes in sections, so that either in car-loads or smaller lots, freight can be lifted by cranes in a moment from rail to boat or boat to rail. The whole carrying trade of the world will be reorganized on the basis of making the railways the carriers of passengers and of packages and perishable freight, and the connecting links between

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waterways. The heavy slow work will fall upon the waterways as a matter of course.

This is not altogether a prophecy; for there is scarcely a civilized nation on earth which is not planning to do in whole or in part exactly what is here suggested. Nearly all of them are far in advance of the United States in this field of progress. Everywhere it is recognized that the principles here enunciated are correct.

The ultimate needs of the earth's children can not be served by railways, except as to the light traffic and the short distances. In the last stages of development the great nations of the present, with their huge cities, must either decay from having been exhausted of their natural capacities for supporting the peoples constituting them or their people must migrate, or they must carry over long distances the coal, the ores, the timber, the phosphates, the nitrates and the potash which are the basis of life in civilization. All these are heavy cheap things which must be moved cheaply, even though slowly, if they are moved

at all. In those days the phosphates of the world will come down the canalized Missouri, and down the locked Columbia and his head streams, while the railways will be used only as tramways for bringing Crusoe's dugout to the water. Similar developments will take place all over the world. The waters will carry the great bulk of the freight.