The Chautauquan
September, 1900

The Shrinkage of the Planet

What a tremendous affair it was, the world of Homer, with its indeterminate boundaries, vast regions, and immeasurable distances. The Mediterranean and the Euxine were illimitable stretches of ocean waste over which years could be spent in endless wandering. On their mysterious shores were the improbable homes of impossible peoples. The Great Sea, the Broad Sea, the Boundless Sea; the Ethiopians, "dwelling far away, the most distant of men," and the Cimmerians, "covered with darkness and cloud," where "baleful night is spread over timid mortals." Phoenicia was a sore journey, Egypt simply unattainable, while the Pillars of Hercules marked the extreme edge of the universe. Ulysses was nine days in sailing from Ismarus the city of the Ciconians, to the country of the Lotus-eaters — a period of time which to-day would breed anxiety in the hearts of the underwriters should it be occupied by the slowest tramp steamer in traversing the Mediterranean and Black Seas from Gibraltar to Sebastopol.

Homer's world, restricted to less than a drummer's circuit, was nevertheless immense, surrounded by a thin veneer of universe — the Stream of Ocean. But how it has shrunk! To-day, precisely charted, weighed, and measured, a thousand times larger than the world of Homer, it is become a tiny speck, gyrating to immutable law through a universe the bounds of which have been pushed incalculably back. The light of Algol shines upon it — a light which travels at one hundred and ninety thousand miles per second, yet requires forty-seven years to reach its destination. And the denizens of this puny ball have come to know that Algol possesses an invisible companion, three and a quarter millions of miles away, and that the twain move in their respective orbits at rates of fifty-five and twenty-six miles per second. They also know that beyond it are great chasms of space, innumerable worlds, and vast star systems.

While much of the shrinkage to which the planet has been subjected is due to the increased knowledge of mathematics and physics, an equal, if not greater, portion may be ascribed to the perfection of the means of locomotion and communication. The enlargement of stellar space, demonstrating with stunning force the insignificance of the earth, has been negative in its effect; but the quickening of travel and intercourse, by making the earth's parts accessible and knitting them together, has been positive.

The advantage of the animal over the vegetable kingdom is obvious. The cabbage, should its environment tend to become worse, must live it out, or die; the rabbit may move on in quest of a better. But, after all, the swift-footed creatures are circumscribed in their wanderings. The first large river almost inevitably bars their way, and certainly the first salt sea becomes an impassable obstacle. Better locomotion may be classed as one of the prime aims of the old natural selection; for in that primordial day the race was to the swift as surely as the battle to the strong. But man, already pre-eminent in the common domain because of other faculties, was not content with the one form of locomotion afforded by his lower limbs. He swam in the sea, and, still better, becoming aware of the buoyant virtues of wood, learned to navigate its surface. Likewise, from among the land animals he chose the more likely to bear him and his burdens.

The next step was the domestication of these useful aids. Here, in its organic significance, natural selection ceased to concern itself with locomotion. Man had displayed his impatience at her tedious methods and his own superiority in the hastening of affairs. Thenceforth he must depend upon himself, and faster-swimming or faster-running men ceased to be bred. The one, half-amphibian, breasting the water with muscular arms, could not hope to overtake or escape an enemy who propelled a fire-hollowed tree trunk by means of a wooden paddle; nor could the other, trusting to his own nimbleness, compete with a foe who careered wildly across the plain on the back of a half-broken stallion.

So, in that dim day, man took upon himself the task of increasing his dominion over space and time, and right nobly has he acquitted himself. Because of it he became a road builder and a bridge builder; likewise, he wove clumsy sails of rush and matting. At a very remote period he must also have recognized that force moves along the line of least resistance, and in virtue thereof, placed upon his craft rude keels which enabled him to beat to windward in a seaway. As he excelled in these humble arts, just so did he add to his power over his less progressive fellows and lay the foundations for the first glimmering civilizations — crude they were beyond conception, sporadic and ephemeral, but each formed a necessary part of the groundwork upon which was to rise the mighty civilization of our latter-day world.

Divorced from the general history of man's upward climb, it would seem incredible that so long a time should elapse between the moment of his first improvements over nature in the matter of locomotion and that of the radical changes he was ultimately to compass. The principles which were his before history was, were his, neither more nor less, even to the present century. He utilized improved applications, but the principles of themselves were ever the same, whether in the war chariots of Achilles and Pharaoh or the mail-coach and diligence of the European traveler, the cavalry of the Huns or of Prince Rupert, the triremes and galleys of Greece and Rome or the East India-men and clipper ships of the last century. But when the moment came to alter the methods of travel, the change was so sweeping that it may be safely classed as a revolution. Though the discovery of steam attaches to the honor of the last century, the potency of the new power was not felt till the beginning of this. By 1800 small steamers were being used for coasting purposes in England; 1830 witnessed the opening of the Liverpool and Manchester Railway; while it was not until 1838 that the Atlantic was first crossed by the steamships *Great Western* and *Sirius*. In 1869 the East was made next-door neighbor to the West. Over almost the same ground where had toiled the caravans of a thousand generations, the Suez Canal was dug. Clive, during his first trip, was a year and a half *en route* from England to India; were he alive to-day he could journey to Calcutta in twenty-two days. After reading De Quincey's hyperbolical description of the English mail-coach, one cannot down the desire to place that remarkable man on the pilot of the White Mail or of the Twentieth Century.

But this tremendous change in the means of locomotion meant far more than the mere rapid transit of men from place to place. Until then, though its influence and worth cannot be overestimated, commerce had eked out a precarious and costly existence. The fortuitous played too large a part in the trade of men. The mischances by land and sea, the mistakes and delays, were adverse elements of no mean proportions. But improved locomotion meant improved carrying, and commerce received an impetus as remarkable as it was unexpected. In his fondest fancies James Watt could not have foreseen even the approximate result of his invention, the Hercules which was to spring from the puny child of his brain and hands. An illuminating spectacle, were it possible, would be afforded by summoning him from among the Shades to a place in the engine-room of an ocean greyhound. The humblest trimmer would treat him with the

indulgence of a child; while an oiler, a greasy nimbus about his head and in his hand, as scepter, a long-snouted can, would indeed appear to him a demigod and ruler of forces beyond his ken.

It has ever been the world's dictum that empire and commerce go hand in hand. In the past the one was impossible without the other. Rome gathered to herself the wealth of the Mediterranean nations, and it was only by an unwise distribution of it that she became emasculated and lost both power and trade. With a just system of economics it is highly probable that for centuries she could have held back the welling tide of the Germanic peoples. When upon her ruins rose the institutions of the conquering Teutons, commerce slipped away, and with it empire. In the present, empire and commerce have become interdependent. Such wonders has the industrial revolution wrought in a few swift decades, and so great has been the shrinkage of the planet, that the industrial nations have long since felt the imperative demand for foreign markets. The favored portions of the earth are occupied. From their seats in the temperate zones the militant commercial nations proceed to the exploitation of the tropics, and for the possession of these they rush to war hot-footed. Like wolves at the end of a gorge, they wrangle over the fragments. There are no more planets, no more fragments, and they are yet hungry. There are no longer Cimmerians and Ethiopians, in wide-stretching lands, awaiting them. On either hand they confront the naked poles, and they recoil from unnavigable space to an intenser struggle among themselves. And all the while the planet shrinks beneath their grasp.

Of this struggle one thing may be safely predicated; a commercial power must be a sea power. Upon the control of the sea depends the control of trade. Carthage threatened Rome till she lost her navy; and then for thirteen days the smoke of her burning rose to the skies, and the ground was ploughed and sown with salt on the site of her most splendid edifices. The cities of Italy were the world's merchants till new trade routes were discovered and the dominion of the sea passed on to the west and fell into other hands. Spain and Portugal, inaugurating an era of maritime discovery, divided the new world between them, but gave way before a breed of sea-rovers, who, after many generations of attachment to the soil, had returned to their ancient element. With the destruction of her Armada Spain's colossal dream of colonial empire passed away. Against the new power Holland strove in vain, and when France acknowledged the superiority of the Briton upon the sea, she at the same time relinquished her designs upon the world. Hampered by her feeble navy, her contest for supremacy upon the land was her last effort and with the passing of Napoleon she retired within herself to struggle with herself as best she might. For fifty years England held undisputed sway upon the sea, controlled markets, and domineered trade, laying, during that period, the foundations of her empire. Since then other naval powers have arisen, their attitudes bearing significantly upon the future; for they have learned that the mastery of the world belongs to the masters of the sea.

That many of the phases of this world shrinkage are pathetic, goes without question. There is much to condemn in the rise of the economic over the imaginative spirit, much for which the energetic Philistine can never atone. Perhaps the deepest pathos of all may be found in the spectacle of John Ruskin weeping at the profanation of the world by the vandalism of the age. Steam launches violate the sanctity of the Venetian canals; where Xerxes bridged the Hellespont ply the filthy funnels of our modern shipping; electric cars run in the shadow of the pyramids; and it was only the other day that Lord Kitchener was in a railroad wreck near the site of ancient Luxor. But there is always the other side. If the economic man has defiled temples and despoiled nature, he has also preserved. He has policed the world and parked it, reduced the dangers of life and limb, made the tenure of existence less precarious, and rendered a general relapse of society impossible. There can never again be an intellectual holocaust, such as the

burning of the Alexandrian library. Civilizations may wax and wane, but the totality of knowledge cannot decrease. With the possible exception of a few trade secrets, arts and sciences may be discarded, but they can never be lost. And these things must remain true until the end of man's time upon the earth.

Up to yesterday communication for any distance beyond the sound of the human voice or the sight of the human eye was bound up with locomotion. A letter presupposed a carrier. The messenger started with the message, and he could not but avail himself of the prevailing modes of travel. If the voyage to Australia required four months, four months were required for communication; by no known means could this time be lessened. But with the advent of the telegraph and telephone, communication and locomotion were divorced. In a few hours, at most, there could be performed what by the old way would have required months. In 1837 the needle telegraph was invented, and nine years later the Electric Telegraph Company was formed for the purpose of bringing it into general use. Government postal systems also came into being, later to consolidate into an international union and to group the nations of the earth into a local neighborhood. The effects of all this are obvious, and no fitter illustration may be presented than the fact that to-day, in the matter of communication, the Klondike is virtually nearer to Boston than was Bunker Hill in the time of Warren.

A contemporaneous and remarkable shrinkage of a vast stretch of territory may be instanced in the Northland. From its rise at Lake Linderman the Yukon runs twenty-five hundred miles to Bering Sea, traversing an almost unknown region, the remote recesses of which had never felt the moccasined foot of the pathfinder. At occasional intervals men wallowed into its dismal fastnesses, or emerged gaunt and famine-worn. But in the fall of 1896 a great gold strike was made — greater than any since the days of California and Australia; yet, so rude were the means of communication, nearly a year elapsed before the news of it reached the eager ear of the world. Passionate pilgrims disembarked their outfits at Dyea. Over the terrible Chilcoot Pass the trail led to the lakes, thirty miles away. Carriage was yet in its most primitive stage, the road builder and bridge builder unheard of. With heavy packs upon their backs men plunged waist-deep into hideous quagmires, bridged mountain torrents by felling trees across them, toiled against the precipitous slopes of the ice-worn mountains, and crossed the dizzy faces of innumerable glaciers. When, after incalculable toil they reached the lakes, they went into the woods, sawed pine trees into lumber by hand, and built it into boats. In these, overloaded, unseaworthy, they battled down the long chain of lakes. Within the memory of the writer there lingers the picture of a sheltered nook on the shores of Lake Le Barge, in which half a thousand gold seekers lay storm-bound. Day after day they struggled against the seas in the teeth of a northerly gale, and night after night returned to their camps, repulsed but not disheartened. At the rapids they ran their boats through, hit or miss, and after infinite toil and hardship, on the breast of a jarring ice flood, arrived at the Klondike. From the beach at Dyea to the eddy below the Barracks at Dawson, they had paid for their temerity the tax of human life demanded by the elements. A year later, so greatly had the country shrunk, the tourist, on disembarking from the ocean steamship, took his seat in a modern railway coach. A few hours later, at Lake Bennet, he stepped aboard a commodious river steamer. At the rapids he rode around on a tramway to take passage on another steamer below. And in a few hours more he was in Dawson, without having once soiled the luster of his civilized foot-gear. Did he wish to communicate with the outside world, he strolled into the telegraph office. A few short months before he would have written a letter and deemed himself favored above mortals were it delivered within the year.

From man's drawing the world closer and closer together, his own affairs and institutions have consolidated. Concentration may typify the chief movement of the age — concentration, classification, order; the reduction of friction between the parts of the social organism. The urban tendency of the rural populations led to terrible congestion in the great cities. There was stifling and impure air, and lo, rapid transit at once attacked the evil. Every great city has become but the nucleus of a greater city which surrounds it; the one the seat of business, the other the seat of domestic happiness. Between the two, night and morning, by electric road, steam railway, and bicycle path, ebbs and flows the middle-class population. And in the same direction lies the remedy for the tenement evil. In the cleansing country air the slum cannot exist. Improvement in road-beds and the means of locomotion, a tremor of altruism, a little legislation, and the city by day will sleep in the country by night.

What a play-ball has this planet of ours become! Steam has made its parts accessible and drawn them closer together. The telegraph annihilates space and time. Each morning every part knows what every other part is thinking, contemplating, or doing. A discovery in a German laboratory is being demonstrated in San Francisco within twenty-four hours. A book written in South Africa is published by simultaneous copyright in every English-speaking country, and on the following day is in the hands of the translators. The death of an obscure missionary in China, or of a whisky smuggler in the South Seas, is served up, the world over, with the morning toast. The wheat output of Argentine or the gold of Klondike is known wherever men meet and trade. Shrinkage or centralization has been such that the humblest clerk in any metropolis may place his hand on the pulse of the world. And because of all this, everywhere is growing order and organization. The church, the state; men, women, and children; the criminal and the law, the honest man and the thief, industry and commerce, capital and labor, the trades and the professions, the arts and the sciences — all are organizing for pleasure, profit, policy, or intellectual pursuit. They have come to know the strength of numbers, solidly phalanxed and driving onward with singleness of purpose. These purposes may be various and many, but one and all, ever discovering new mutual interests and objects, obeying a law which is beyond them, these petty aggregations draw closer together, forming greater aggregations and congeries of aggregations. And these, in turn, vaguely merging each into each, present glimmering adumbrations of the coming human solidarity which shall be man's crowning glory.