

ROADTOWN



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*** START OF THE PROJECT GUTENBERG EBOOK ROADTOWN

ROADTOWN

ROADTOWN

BY
EDGAR CHAMBLESS

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150 NASSAU STREET

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EDGAR CHAMBLESS

DEDICATION

This book is dedicated to J. Pierpont Morgan, a *straight* player of a *crooked* game, who, it is said, played his usual role in the Wall Street manipulations of the Central Railroad of Georgia securities, which adroitly and legally absorbed the small savings and happiness of many unsophisticated investors—an action which, in my case at least, proved to be a blessing in disguise, for it made me *suffer* first and then made me *think*. Hence the gratitude and consequent dedication to Mr. Morgan for starting the train of thought, which finally resulted in the invention of Roadtown, a plan for side-stepping the *crooked* game as now played so that henceforth whosoever will may become a *straight* player of a *straight* game.

FOREWORD

Nineveh, Babylon, Rome, London, New York,—all cities from the twilight of the past to the high noon of the present have been constructed on one plan, which is no plan at all. Like Topsy, they jest grewed, with no further aims in view than to huddle together for the sake of companionship and self-protection against enemies. A map of the haphazard streets straying crookedly through them looked like cracks in an earthenware dish. The siege-walls which until recently surrounded them emphasized the prisoner-like existence of their inhabitants. Noise, dirt, disease, suffocation and confusion, crime—these spirits of evil took up their abode in the midst of them, never to be dislodged, and students of political economy, hygiene, decency and morality wasted eloquence and logic in showing how bad it all was, and in suggesting picayune and transient remedies. The true Moses, with the effectual remedy, which will lead us out of our long Egyptian bondage, arrives only to-day, and if we will but follow the teachings of the gospel contained in the ensuing pages, we may be free, healthy, wealthy and happy forevermore.

This Moses of ours, contemporarily incarnated as Mr. Chambless, arrives at the psychological moment when we are all ready for him. The Jeremiahs of rotten conditions and the Cassandras of impending woe had prepared us for the necessity of change, and the Edisons, Teslas and Lodges of electrical and other inventions had supplied the means for it. The great riddle was ripe for the guessing: and Mr. Chambless has guessed it.

Transportation, distribution, and the middle-man,—what a waste of time, energy, economy and common sense are involved in our present handling of these elements? The domestic servant problem,—how sorry and slipshod a solution of it are the hotel and boarding house of to-day? The elimination of the open country from our children's training and from our own opportunities for peace and sanity,—what a paltry and impotent substitute for it is the hybrid suburb? Personal independence, social harmony, full value for work done, adequate leisure after toil,—does not this sound like the Millennium? Read Mr. Chambless, O ye captives of Civilization, and burst your shackles!

He takes a map and a ruler and draws you a straight line from the Atlantic coast to the Alleghanies, thence on to the Mississippi, so across the prairies to the Rockies, and down to the very sands of the Pacific. What does this line stand for? It stands for the site of the New City; and there may be as many more of them as you can make straight lines from any given point to any other, in any direction along and athwart the continent. A single line of houses, superimposed upon three lines of railway, one on top of the other, underground, two stories of living and working rooms above-ground, a continuous promenade along the roofs, and gardens and country front and back all the way. Concrete “poured” houses (Edison’s patent); smokeless, noiseless, unintermittent, arrow-swift trains, local and express, bearing you at all times, in no time, to your precise destination and back; telephones, telegraphs, teleposts, parcel-carriers, freight service, compact, punctual, prompt, accurate, enabling you to live along the line from part to part and from end to end, and be served with the best at the cheapest at all times, while sitting in your easy chair; house-work done mechanically, and your private trade or profession followed in your own workrooms at minimum expense of time and effort and at greatest profit; rent reduced, taxes minimized, slums exterminated, pure food, fresh air and exercise ad libitum; politics purified, cut-throat competition supplanted by rational coöperation,—in short, the means for erecting mankind to its full stature and rendering everybody free, useful, happy and wise can be secured by Mr. Chambless’s Roadtown, and the moment to begin is Now! Read his book and get together. Have we not waited long enough? He has spent half a lifetime perfecting his plans; they are as practical as they are attractive, and his only opponents are shiftless habits, stupid inertia, and blind prejudice.

But before the first Roadtown has been built out ten miles into the wilderness, it will have become an object-lesson before which all foes will gladly transform themselves into friends, and all critics become eulogists. Aviation has a mighty future: but the grand step forward in Twentieth Century civilization is Roadtown, for not only is it an incomparable benefit in itself, but it affords all other useful inventions their best medium toward perfection.

JULIAN HAWTHORNE.

THE MAN CHAMBLESS

BY JOHN HAYNES HOLMES

It was about two years ago that a tall, gaunt, pale young man entered my church study and said, in quite confident terms—"I want a long talk with you, sir, for I've got something that I believe will interest you."

Being not wholly unused to the ways of agents, promoters, inventors and various kinds of visionaries, I felt somewhat impatient at this unhesitating demand for a liberal share of my time; but I told my visitor, as pleasantly as possible, to be seated and to describe the thing which he thought would "interest" me. This was the beginning of my acquaintance with Mr. Edgar Chambless, the author of this book, and the opening words of my introduction to Roadtown.

At that time, Roadtown was nothing but a dream,—a crude and imperfect idea, as compared with the careful and well-tested conception which is here given to the public. To its inventor it appeared even then, in its original form, to contain the solution of most every perplexing problem of modern social life,—to me, to whom it came not as a slowly dawning idea but as an immediate revelation, it appeared to be only one more extravagant and utterly impracticable vision, akin to that invention, once laid before me by a dear old man, whereby light and heat might be endlessly generated without the combustion of any fuel, or to that other wonderful idea, commended to me by a devoted enthusiast, whereby the drama was to be made the oasis of all ethical instruction and the theater the school of morals.

Something in Mr. Chambless' personality, however, held my attention and won my sympathy. In our first talk together, I was made to believe in him even while I could not find it within reason to believe in the revolutionary possibilities of his conception, and so I asked him to call again. And from that time to this, I have met him and talked with him frequently. I have seen his dream become transformed from an ill-conceived vision into a well-conceived and thoroughly practical idea. I have seen the man himself rise from the position of a visionary dreamer, seeking the ears of any who would listen, to that of a recognized genius, welcomed in the offices of editors and publishers, and received on equal terms by the best

known architects and inventors of the nation. I have seen Roadtown subjected by competent men to the most rigid mechanical and economic criticisms, and beheld it emerge triumphant. I have seen Mr. Chambless convert architects, mechanics, charity workers, philanthropists, and cost-of-living experts from scoffing impatience to enthusiastic faith. I have had the privilege, in a word, of watching the triumphant progress of a great and original idea, and the heroic personal victory of a true inventive genius.

During all of this time I have done nothing but “lend my ears” to Mr. Chambless. Unable to help him to work out his ideas in any practical way, I have tried to serve him as a friend and confidant. To me he has unfolded his joys and his sorrows—revealed his feelings of alternating despair and hope—told the tales now of success and now of failure. For two years past, I have watched and listened, and all the while my faith in Mr. Chambless has grown ever stronger and my sympathy with his endeavor ever deeper. Indeed, for some months it has been my feeling that I had no higher duty than that of helping as best I could, by the word of good-will, the handclasp of friendship, and the listening ear of personal faith, one of the few men I have ever met in my experience who was truly laying down his life for the sake of a great and unselfish idea.

Mr. Hawthorne, in his Foreword, has testified to his belief in the idea of Roadtown; I would here testify, in my Foreword, to my belief in Mr. Chambless. He is made of the stuff of heroes—those who have sacrificed home, friends, social positions, money, personal comfort, yea life itself, in the service of humanity. His is the spirit of perfect devotion to an ideal. He represents in his person the type of valiant martyrdom, which I have read about a thousand times in books, but have met not more than a half-dozen times in real life. As to whether his scheme is practicable or not, I cannot say. Experts, not accustomed to being swept off their feet by bursts of enthusiasm over chimerical ideas, have testified that it is. As to whether his conception will solve all the problems of social life which he says it will solve, I again cannot say. Experience teaches that every original idea has revolutionary possibilities.

But as to Mr. Chambless himself, I can say, and say with enthusiasm, that he is a man deserving of the confidence of men. Mr. Hawthorne commends Roadtown to the earnest consideration of all thoughtful persons for itself. I commend Roadtown in a similar way for its inventor. Prove him wrong if you can, but first master his ideas.

Church of the Messiah, June 15th, 1910.
Park Ave. and 34th St.,
New York City.

TABLE OF CONTENTS

	PAGE
CHAPTER I	
WHEN I BEGAN TO THINK	17
How I came to invent Roadtown	18
CHAPTER II	
A NEW CONCEPTION OF TRANSPORTATION	21
Transportation in nature	23
Our disjointed civilization	27
CHAPTER III	
LINE DISTRIBUTION—THE LOGICAL OUTCOME	31
Transportation determines the form of cities	33
Building in one dimension	35
A line of city through the country	38
CHAPTER IV	
THE ROADTOWN PLAN OF CONSTRUCTION	40
To be built of cement	41
The railroad will be noiseless	43
Speed possibilities	46
The street upon the roof	53

CHAPTER V

CIVILIZATION THROUGH PIPES AND WIRES	59
Water	63
Sewerage	64
Heating	65
Refrigeration	65
Drinking water	66
Bath and toilet	67
Gas	68
Vacuum	68
Disinfecting gas	69
Electric light	69
Electric power	69
Telephones	70
Dictograph	71
Telegraphone	72

CHAPTER VI

ROADTOWN HOUSEKEEPING	74
Woman's work not specialized	74
No laundry work at home	76
Dusting and sweeping	78
Making beds by machinery	79
Coöperative cooking practical	81
The end of household drudgery	84

CHAPTER VII

THE SERVANT PROBLEM IN ROADTOWN	89
---------------------------------	----

CHAPTER VIII

ROADTOWN AGRICULTURE	90
Sufficient land to support population	93
Elimination of the middle man	99
Coöperative ownership of farm tools	100

CHAPTER IX

INDUSTRY RETURNS TO THE HOME	102
Wage slavery doomed	103
A work room in every home	105
A new type of factory	110
A special message to women	112
The end of monotonous labor	114

CHAPTER X

ROADTOWN MAKES CO-OPERATION PRACTICAL	116
Also a Mecca for the individualist	117
The Roadtown department store	119

CHAPTER XI

ROADTOWN EDUCATION AND SOCIAL LIFE	123
Roadtown athletics	125
Education for old as well as young	126

Eyes to be used less and ears more	128
Mothers for public school teachers	131
Lowest death rate in history	133
A home in the truest sense	137

CHAPTER XII

WHO WILL BUILD THE ROADTOWNS	139
Home rule for Roadtowners	142
Detached villas practical but undesirable	145
Builders of Roadtown take minimum risk	148
The cost of the first mile of Roadtown	150
Economy increases with length	157
A real remedy for congestion	161

CHAPTER XIII

IN ROADTOWN THERE WILL BE NO TRUSTS	163
Shall we miss them	165
The Roadtown religion	168

ROADTOWN

CHAPTER I

WHEN I BEGAN TO THINK

IN the panic of 1893 I was in the city of Los Angeles. I had received word from the East that my small fortune had vanished as a result of an ingenious Wall Street railroad “reorganization.” I had drawn my last dollar from the bank and had spent it. I was out of a job. I didn’t know where or how to get one, for I had been troubled with eye strain all my life, and had little experience in the work of the world. The city was thronging with experienced and trained workmen, out of work like myself. I did not know where the price of my next week’s board was coming from—in short, I was stranded in a stagnant world. It was Sunday afternoon. I was sitting on a rock on top of a hill in the heart of the city. The ground about me was vacant, yet I could have thrown a stone over the precipice into the principal street of the city. I began to think—I needed money—there was no opportunity to get a living by working with my hands. I grasped eagerly at any *idea* that had within it the possibility of creating value, wealth, money, bread, perhaps butter and a new suit of clothes. The ground where I was sitting was vacant and comparatively worthless. I asked why? The answer was, lack of transportation. There was no convenient way for people to get on top of the hill.

Time passed. I finally located in New York City and became a patent investigator. I continued to think of transportation and its relation to land value.

How I Came to Invent Roadtown.

In my business as a dealer in patents I became acquainted with all manner of inventions and inventors. I found that most inventions were worthless, that a very few were practical and were promoted and utilized in the usual fashion. Another group I found to be practical and workable in themselves, but not available for use because their adoption would throw into the junk heap millions of dollars worth of old machines, and hence they

were bought up and “shelved” by the vested interests. And still another group could not be utilized because they would require new franchises which men with little capital could not purchase of the political franchise jobbers. To these were added a last lot of inventions that could not be utilized to anything like their full capacity because they could not be fitted into the crude mechanism of the present style of city construction.

So I began to dream of new conditions in which some of these shelved inventions might be utilized to ease the burden of life for mankind. One plan after another was abandoned until the idea occurred to me to lay the modern skyscraper on its side and run the elevators and the pipes and the wires horizontally instead of vertically. Such a house would not be limited by the stresses and strains of steel; it could be built not only a hundred stories, but a thousand stories or a thousand miles—in short, I had found a workable way of coupling housing and transportation into one mechanism, and a human way for land-moving man to live—I would not cure the evils of congestion by perfecting congestion as is the case with the skyscraper—I would build my city out into the country. I would take the apartment house and all its conveniences and comforts out among the farms by the aid of wires, pipes and of rapid and noiseless transportation. I would extend the blotch of human habitations called cities out in radiating lines. I would surround the city worker with the trees and grass and woods and meadows and the farmer with all the advantages of city life—I had invented Roadtown.

CHAPTER II

A NEW CONCEPTION OF TRANSPORTATION

WHEN I use the word transportation in relation to Roadtown I do not mean what the term usually implies. You often hear the expression, “our transportation systems,” but your conception of its meaning is limited to railroads, boats and street cars. The other crude links in our transportation system are invariably called by other names such as trucks, carts, delivery wagons, dumb-waiters, elevators, etc. It is true that these last named links are sometimes referred to as transportation devices, but not as a part of a comprehensive system of transportation.

Roadtown transportation includes all the links in the system of transportation automatically coupled into one system. This is what I mean by a *new conception of transportation*.

The functions of housing and transportation are fully coördinated by Nature in the individual animal—legs are her vehicle of passenger transportation, talons and arms are her freight system, the animal body is the house. Housing and transportation exist together, being mutually interdependent. They are inseparable, the building is worthless without transportation and conversely there would be no need for transportation without the house.

There is no better illustration of the need for a proper combination of transportation and housing than that of the human body. The baby’s first task is to learn to use its transportation devices, otherwise its house or body is useless. Life is full of lessons of the necessity of the harmonious combination of the functions of transportation and consumption. The monkey was provided with means for transporting himself up the banana tree and an efficient means of getting the banana from the stalk to his mouth. Gold carried from mines in Peru to a jewelry shop in Madrid; men carried from their homes in Brooklyn to their offices in Wall Street; food carried from a farm in Canada to a dining-room in a Boston hotel; gas carried from retorts to the burner in a parlor chandelier; electricity carried from the generator in Niagara to the motors in Rochester; a pound of steak

carried by the delivery boy to the basement of your house and pulled up in a dumb-waiter; a letter carried by a postman; the song of a Prima Donna sent scintillating through the air by a wireless phone—all these things and a million others are but a civilized man's arms and legs—his means of transportation.

Transportation in Nature.

The game of life in wild nature is but the getting of food and water to the consuming plant or animal, or getting the more adaptable animal to the food or water or some warm spot, or the society of his fellows. So the life of man, whether it be the family with the single house or the city with its many houses, shows a similar relation—things needed by the inhabitants, things taken from the place where they are and to a place where we want them—that is transportation.

Start out in the morning, number your every minute's occupation, watch what your neighbors are doing. The man on the stairs, the wagon on the street, the rumbling subway train in a three million dollar a mile right of way, the elevator in the skyscraper, the office boy at beck and call—it is all transportation. Run over in your mind the work of the office and brain workers in a city business section, how many of them are engaging in planning, directing and accounting the various forms of transportation.

In fact, every hour of existence we are performing some act of transportation except when asleep. If we allow eight hours for rest we find that two-thirds of our lives are spent in transporting ourselves to our wants or our wants to ourselves.

The basic principle of Roadtown is a plan to give the social body proper arms and legs, to make them not as they are, separate and uncoordinated functions, but as part, in fact the most important part, of the scheme of civilization.

The members of society are all engaged in transporting themselves and their belongings a goodly portion of their time, and besides a large group is exclusively engaged in the work of transportation. Moreover, the so-called productive labors are at every step interwoven with operations of transportation. Analyze for a moment the work of the factory, of the farm—how much of it is production, how much is transportation? Could we, like Aladdin, rub a mystic lamp and cause things to be created from nothing, we

would indeed be well served. But could we command the génie of transportation, the will to wish what is from where it is to the place where we want it, our power would be equally miraculous and quite as useful.

Our methods of production, though still extremely wasteful, are constantly growing in efficiency. In this age a minority of mankind produce for the entire population. A constant stream of people from the farm pours into the city. These people produce nothing and expect to live by distributing goods to each other; but congestion of population in large cities introduces insolvable mechanical difficulties in distribution, until railroads, ware houses, trucks, wholesale and retail stores, delivery wagons, grocery boys and dumb-waiters, become congested; the machine clogs and thus the growing efficiency of modern production is lost through a more rapidly growing waste in distribution.

The increasing number of those who get their living by taking a slice of profit and the growing expense due to the ever increasing mechanical difficulties in distribution are evils that aggravate each other.

As the makers of law live principally by the profits of distribution, they will not change the scheme, nor can the wealthy, with their country villas legislate the modern city tenant back to the loneliness, long hours and lack of conveniences of farm life. A proposition that would combine cheaper rents, greater conveniences and give all an opportunity to engage in productive work would be a real solution for the high cost of living. Roadtown eliminates all possible waste and relieves the army of distributors of nine-tenths of their present work, thus throwing these people into productive labors.

Labor which results in the creation of a concrete product—something that can be eaten or worn is generally appreciated. Transportation, the far greater necessity, is not so readily appreciated as a source of wealth, nor is the waste in transportation so quickly seen or remedied.

Our Disjointed Civilization.

Our factories and our farms—the places of production—our houses and cities—places of consumption, and our railroad trucks, delivery wagons and dumb-waiters, means of transportation, have been developed by separate minds—they work together—clumsily—wastefully. Civilization is a black cabinet of plates and doughnuts, arms and legs, and consuming mouths

dancing around in an uncoordinated fashion, occasionally getting together and serving each other, but more often missing the mark—two hands going to one mouth, another hand missing the mouth altogether; there is no plan, no unity, no harmony, no mind behind it all. The farm and factory, the railroad and the city grow separately, each to serve the other it is true, but the machine as a whole is woefully disjointed and inefficient. We may liken our present system of living to old style harvesting. A binder, wonderful enough in itself, left the bundles of grain strewn about the field. They were shocked by hand. Later they are gathered into wagons and hauled to the farm yard and built into stacks. Then the thresher comes and with another complex machine delivers the grain, loose, through a running spout, where men weigh it and sack it and load it into wagons, which are as crude as the threshing machine itself.

Compare this system, wonderful though it be, with the combined header-thresher, which at one operation cuts, threshes and delivers the grain weighed and sacked into the wagon. In the combination of the previous operations many of the steps, the binding and hauling and stacking and weighing drop out. The machine simplified the whole process, it eliminates waste, it represents a unity of plan, a harmony of operation.

Our modern complex systems of production, transportation and consumption, like the old-fashioned method of harvesting, require many separate machines. Take the one product of butter for illustration: the farmer produces milk, the milk hauler carts it to town, the creamery man manufactures the butter, then packs it into tubs and sells it to a dealer; the dealer ships it to the city by rail and then another truckman delivers it to a jobber which means more trucking; the jobber molds the butter into prints and boxes them. A wagon takes it to a grocer where it is again stored, sold, and goes the round of another wagon, a dumb-waiter, a pantry, a waiter, a table, and at last consumption. This is a sample story of civilization, a heterogeneous mass of independently acting individuals and separate mechanisms, full of mechanical waste, full of human waste, full of financial waste. The butter fat as is now wastefully produced is worth twenty cents in the farmer's milk pail, it cost two cents to skim it and churn it, the rest is transportation. It is worth forty cents at the grocery store and fifty cents to one dollar on your table, according to how much of your household distribution is done by your wife who gives services gratis and how much by servants whose arms and legs move only in response to the rattle of the

shekels. And how much would this service of transportation cost if production, transportation and consumption, like the modern header-thresher, were built upon a plan of coördination, that is, if the farmer's dairy was on a transportation line with the creamery, and the creamery on a line with the kitchen where machinery and specialized labor are available, and the kitchen was on a line with the consumer's dining-room, and the only expense of transportation was the cost of power to move the material object and the cost of labor to perform the actual processes of manufacture that intervene between production and consumption.

The Roadtown is a single unified plan for the arrangement of these three functions of civilization—production, transportation, and consumption.

CHAPTER III

LINE DISTRIBUTION—THE LOGICAL OUTCOME

CIVILIZATION growing up in a separate and disjointed fashion has resulted in a certain arrangement of the population upon the face of the earth. At first savage men roamed the plains and forests seeking food. The advent of civilization, industrial and social coöperation, taught men the advantage of gathering themselves into cities. At first these cities were provisioned from the country by means of humans or animal beasts of burden, then water transportation caused the development of greater cities on rivers and harbors. With the advent of the railroad, together with the transportation agencies already mentioned, the provisioning of cities became limited only by the ability of the country district to support its own population and that of the city.

The occupation of the city people was chiefly that of manufacturing, trading and grafting on the farmer and on each other. The invention of steam power made it economical to assemble workmen into large factories which added another cause to the growth of cities. The use of this steam power forced the city worker out of his home and into the more economical factory, thus developing the factory system.

The continual growth of cities soon filled the land with large groups of houses, crowding each other for room. As the houses were built closer and closer together, the amount of light and air was shut out, in order that the distance the workers lived from their work might not increase. At first workers went from their work to their houses on foot, later by means of the horse car, still later by steam car and now the electric car is supreme. As these transportation facilities first used to get provisions into the city and

the manufactured product out of it were utilized to get the workers to and from their work, the houses began to follow the transportation lines.

Transportation Determines the Form of Cities.

As time and the expense of transportation rather than distance were the elements that governed the distance from the heart of the city that could be used for workers' homes, the utilization of fixed lines of traffic resulted in the city building out along main streets, trolleys and railroads. Along main lines of traffic, as between two important cities, the population began to group itself into lines.

This is the state of the distribution of population to be found in the world to-day. But the present distribution is imperfect. The trolleys carry people to the street corner but make no provision for getting them into their homes or for getting the meals on the sideboard, the book from the library to the center table, or the camphor from the drug store to the sick room.

The means of conveying the necessities of civilization is almost wholly that of rails, pipes and wires. The former is the means of transporting people and parcels, the second of liquids and gases, the third of electricity in its various forms.

These mechanical servants have been placed in the streets which were first built as roadways for carriages. In the streets, the pipes and wires must be buried beneath the pavement at great expense. Through these streets, frequently full of curves and angles which offer little trouble to the free moving horse-drawn vehicle, the rails must be bent and the cars slow down for curves. From beneath the pavement the pipes and wires must be separately led into the basements of each building and up through successive stories to the apartments above. Within the building, separate vertical car lines called elevators, must be built and city transportation becomes a matter of three dimensions with train service running in from principal outlying points, cross-town trolley lines and vertical elevators, all separate schemes of transportation requiring changes and delays, endless duplication, colossal expense and criminal waste.

Now rails, pipes and wires can be most economically laid in continuous straight lines. In the case of railroads, the greater the speed without stops the more the necessity for straight lines. A car running at a speed of forty miles per hour has sixteen times the force for derailment as a car at ten

miles, and there is a like increase in the cost in power and time to stop the car. Moreover, to be efficient the railway should be where nothing will obstruct the passage of trains. Pipes must be kept from freezing, live wires from giving shocks and yet all must be available for new installation and repairs. None of these needs are filled by present city conditions; all can be fulfilled if the city is planned to fit the rail, pipe and wire civilization of to-day instead of the pedestrian and equestrian civilization of the past.

Building in One Dimension.

The Roadtown is a scheme to organize production, transportation and consumption into one systematic plan. In an age of pipes and wires, and high speed railways such a plan necessitates the building in one dimension instead of three—the line distribution of population instead of the pyramid style of construction. The rail-pipe-and-wire civilization and the increase in the speed of transportation is certain to result in the line distribution of population because of the almost unbelievable economy in construction, in operation and in time. The people will return to Mother Earth because it is in every way desirable for them to do so and not because some merchant prince, railroad king or social worker says they ought to go.

In modern life an office building, store or apartment house is considered especially fortunate if it has a rapid transit station near or better still within the building. All the inhabitants of the Roadtown will live upon the main line and be near the station. They will live there because the utilities of civilization can be provided there more economically than elsewhere. But the line distribution has yet another significance of as great importance as the more safe and economical distribution of people, parcels, fluids and electricity.

The development of cities was originally brought about by the desire of men to get close together for industrial needs and social fellowship. This same want for ready communication and distribution of men and things I have shown can now be most completely fulfilled by the city which will be strung out in a line. In other words, the very laws which built the congested cities will, with the construction of the first section of the first Roadtown, surely mark the beginning of their gradual dissemination. Such a tendency can already be seen at work, but its development has not progressed far

because of the isolation of the functions of house construction and horizontal transportation devices.

As soon as horizontal transportation is put in the house, the skyscraper on its side, and is pointed towards the endless country instead of up against the force of gravity, and the wonderful transportation devices now available are installed, you will see the cities spread out in lines amidst the fields and farms, as if by magic. Indeed it will be the magic of economy, the natural force to which all of humanity always promptly responds.

The height of the skyscraper is limited by the stresses and strains on the steel, by the instability of the foundation, by congestion of the elevators. The length of the skyscraper on its side has no limit for it is built on solid ground, it has no lighting and ventilating problems. Its transportation system by the aid of local and express service, by the fact that it can run trains, not single cars, and can run many trains following each other on one track and not require a whole shaft for a single car as in the case of the elevator, removes the mechanical limitation of length of the horizontal skyscraper. We can build not only a thousand feet, but a thousand miles and have every story connected with every other story by rails, pipes and wires.

A Line of City Through the Country.

The Roadtown will start at the end of the present subways or other rapid transportation systems of present cities or tap these lines far enough out to get comparatively cheap land and build out in the direction of other cities, passing near enough to the smaller cities, towns and villages to summarily attract much of their renting population. This movement will surely mark the “beginning of the end” of such wasteful loafing centers for the few, and the stagnant pools of wasted energy for the many. It will be a line of city through the country. It will take the apartment house to the farmer and incidentally free the farmer from the necessity of feeding the well-meaning townfolk who give him in return scant clothing, the use of a hitching post for his team—sometimes; a place to get his weekly paper and a little social fellowship on the sidewalk Saturday afternoons. It will give the suburbanite all that he seeks in the country and all that he regrets to leave in town. It will enable him to play at farming, do real farming or retain his city job. The people will go to the land and take the best things of the city with them, take in fact all that is good in the city to-day and in addition much that is

now pigeon-holed as unused patents, because the conglomeration of isolated homes and the crude horse paths called streets, owned by “hold-up men” called politicians, do not permit of the general adoption of these great inventions.

CHAPTER IV

THE ROADTOWN PLAN OF CONSTRUCTION

THE first problem in making a village or a city house is the excavation for foundation and cellar. In the case of isolated houses the cellar is dug by hand labor and dirt carried away by horse-drawn carts. Witness the difference in method between such excavation and that of a canal, the grading of a railroad or any other project that is to be made in line. In the latter case the steam shovel replaces the spade, and the work train, the dump cart.

Those familiar with city subway construction will at first think the idea of a railway in the basement is an expensive luxury. But the excavation of the Roadtown basement should be compared with the New York State canal, not the New York Subway.

To be Built of Cement.

The Roadtown will be built of cement, fire proof and vermin proof. Modern so-called fire proof buildings are frequently destroyed by fire. This is because they contain combustible material. If material in a large building gets on fire and through stairways and air shafts sets fire to other combustibles, the whole building is heated to the ignition point.

The horizontal Roadtown house, only two stories high, cannot be destroyed in this fashion. Even if a Roadtown were built of Carolina pine, it would still be a safer fire risk than modern fire proof buildings in cities. A fire raging in a continuous house could as a last resort be stopped by two sticks of dynamite. In the city the fire line must be fought on all sides of an ever enlarging circle. Dropping this theoretical point we can say that the really fire proof Roadtown can be made at a fraction of the cost of making a building of similar enclosing space semi-fire proof, which experience has shown is the best that can be done with city buildings of the box or tower type. The Roadtown very likely will not carry fire insurance nor maintain a fire department, as every house will have a fire hose which can be instantly

applied. The frightful expense and loss of life (and recently the source of graft) that our present civilization suffers because of fire, will be told to the Roadtown children as we now tell about Indian massacres.

Roadtown will be proof against the “cyclones” that are the evil genius of country life in the South and West. As for earthquakes, San Francisco’s experience proves that reinforced concrete is the best earthquake resister known.

Any building material may be used, but we will here consider cement, poured into moulds, as a standard.

Thomas A. Edison, whose efforts at perfecting a method of molding complete houses by pouring cement into molds, has attracted world-wide attention, has donated to the Roadtown the use of his cement house patents.

The Roadtown, like the railroad, will get much of its building material, such as sand and stone, along the right of way, and haul it to its place in the structure on the railroad which will be the first part of a Roadtown to be constructed. Thus the expense will be greatly reduced.

Wagon hauling and hand mixing, the heaviest items of expense in cement construction, are entirely eliminated in Roadtown where the concrete is mixed and poured from a machine located on a work train.

The Railroad will be Noiseless.

The essential of the Roadtown being the combination of transportation and house construction, the Roadtown if invented in any age before the present one would have been worthless. The horse-pulled vehicle or the steam or gasoline engine would be a nuisance in any part of a building used for a dwelling. Electrical transportation, on the other hand, is a perfectly refined method of locomotion and well suited for indoor uses.

Of the various systems of transportation devised and now available, I believe the Boyes Monorail to be the most applicable to the needs of a continuous house, and I have prevailed upon Mr. Boyes to donate the use of his patents to Roadtown.

This wonderful invention was perfected after many years of intense application by a thorough mechanic and electrician. It has been demonstrated and found to be thoroughly practical and is far in advance of either the present two-railed electric railroads, or the Gyroscopic types of

Monorail cars which have lately attracted considerable attention because of their seeming disregard of the law of gravity.

The Gyroscopic Monorail, at a great expense and complication, eliminates one rail, but there is no particular gain in so doing, in fact there is a distinct loss for the thing that limits the speed of the ordinary electric car, is the loss of grip on the rail, and in the Gyroscopic Monorail the bearing surface of the steel wheels is reduced to just one-half that of the ordinary car.

The Boyes Monorail uses the principle of the gyroscope used in the Brennan Monorail with a difference that where the Brennan gyroscope acts as a top the Boyes Monorail is kept true by the heavy drive wheel which acts on the principle of a hoop or rolling wheel. The Boyes train is made in short cars or sections rigidly coupled together with rubber padded couplings. Each car or section rides on a single concave leather faced wheel that runs on a broad convex steel rail. This wheel is set up within the body of the car, thus permitting the car to straddle the track.

There is a door on either side of each eight-foot car or section, which is opened and closed electrically. Only six people enter at a doorway, thus eliminating all delays and jams at crowded stations.

The leather faced wheel grips the track to such a great degree that it is practicable to build the cars as light per passenger as is the bicycle, thus giving great efficiency and power. A train of the Boyes type to carry the same passengers as the subway cars of New York, weighs one-thirtieth as much. The power is electrically fed to the train from a small "third" rail.

Speed Possibilities.

I hesitate to make any predictions as to the speed attainable in the Boyes Monorail. As is generally known, the world's speed records are now held by automobiles, not railway trains. The record to date is about one hundred and thirty-two miles an hour made by Oldfield, at Ormond Beach, Florida. It is the traction grip in the rubber tired wheel that makes this speed possible. The Boyes car will have this grip and instead of sand to run on will have a rail from which it will have to jump thirty inches to be derailed. The car cannot skid, jump the track nor upset. It does not carry the weight of its power creating apparatus. It has no heavy parts but the single wheel and its casings. The inventor states that with the power now used on the New York

Subway trains a Boyes train carrying the same number of passengers will attain the speed of two hundred and fifty miles an hour. I recently asked an automobile manufacturer what, at present, set the limit on the speed autos. He replied, "The nerve of the driver." The bearing parts of the monorail can be made many times the strength required for the speeds intended and thus reduce accidents from broken parts to a minimum. I have asked a number of engineers to give me a reason why the speed predictions of Boyes could not be attained. One replied, "It's never been done." Another said, "Municipal politics."

Because I have spoken in favor of the Boyes Monorail I do not wish the reader to infer that the development of the Roadtown depends upon the progress made by this invention. We have noiseless electric automobiles today and noiseless bicycles that serve well to demonstrate the feasibility of building a noiseless service for the purpose of Roadtown and such a later system will indeed probably be installed in the first demonstration section. No man of a mechanical turn of mind will doubt for a minute that noise in transportation can be eliminated where it is desirable to do so.

The Roadtown transportation system will be in the cellar. This idea will at first seem strange, and many people will suggest that it be put above ground thinking thus to save expense and have the "view." I think a little explanation will show that the basement is the only logical location for the Roadtown transportation line.

If it is above ground it will have to be fenced off or elevated to prevent loss of life. If it is fenced it will keep people from the land. If it is elevated the stations will be expensive and an eyesore. As for the idea of a view, we can say that the Roadtown railroad is not for sightseeing any more than an elevator in a hotel. If placed beside the house line it would destroy the natural "view" and privacy of the home, and the roof is reserved for a better use.

The basement is clearly the only logical place to have the monorail where it will be absolutely convenient and yet free the house from the nuisance of living beside an elevated railroad track. The expense of the basement, where steam shovel and work train are utilized, as already explained, will be comparatively small, and the house above will provide a continuous covered passageway from the door of one's apartment to the station. As for ventilation, which is a puzzling problem in city subways, it will be solved by a continuous opening made by building the house three or four feet

above the ground; the Roadtown trains will therefore run in a covered trench rather than in a subway.

Because of the rail straddling plan the Boyes car must be entered from both sides. Three tracks will be required and these will be arranged one beneath the other. The reason for this is obvious: if arranged side by side, passengers would have to climb up the height of the car and down again. Arranged vertically, they need climb only up or down. Because the distance from rail level to car floor level is practically eliminated in the Boyes car, this climb will be but seven or eight feet instead of twelve as with present train service. The upper track will be for local service. Passengers will walk from their house along a continuous platform or hallway to the local stations, which will be located about 100 yards apart. The object of having definite stations or stopping places is simply one of gaining speed by having the people in groups. The platform will be continuous and the trains can be stopped at any house desired if there be a good reason for so doing.

About every five miles there will be an express station. Here the people will climb down eight feet, or sixteen if going the opposite direction, and board a train that is not bothered with frequent stops and can hence make very high speed.

The following is a sample specification of Roadtown train service as submitted by William H. Boyes, using the Boyes Monorail System at a speed of only ninety miles per hour. Line from New York to Philadelphia, ninety miles. Daily traveling population, one to a family, 250 per mile, 11,250 to go each way. 3,916 per hour for three rush hours. Speed, ninety miles per hour; time of round trip, two hours; trains five minutes apart; stations, five miles apart. Trains, twenty-four; seating capacity per train, 336; capacity of express service, 4,032 hourly. Local trains oscillating between express stations each to carry 224 passengers per hour, eighteen required.

This specification submitted by Mr. Boyes gives a remarkably small equipment for the traffic handled compared with present figures. The chief difference is due to the high speed. There are many who will not believe that a ninety-mile schedule will be maintained, not so many perhaps as would two years ago have refused to believe that man could fly from New York to Philadelphia, an account of the accomplishment of which lies on my desk as I write. For those to whom seeing is necessary to believing, the speed above may be cut in half, which will then be about that in the New

York Subway. The express trains will then run on a two-and-a-half-minute schedule and twice as many will be required, but the cost will still be much lower than present day commuting service and efficient enough to make the entire Roadtown from New York to Philadelphia as accessible for commuters as is now a suburban home fifteen miles from New York and a half mile from the railroad station.

The single train on the local track will make a round trip between express stations about every fifteen minutes. Those near the middle of the section will catch the train going in either direction, as the time for the express to travel the distance of one express station is negligible. In each Roadtown home there will be an electric buzzer which, when the switch is so turned, will announce the approach of a train in sufficient time to allow one to get to the station. The buzzer will have two distinct sounds, one for trains in either direction.

Roadtown parcels, such as are not cared for in a small mechanical carrier described in Chapter VI, will be hauled on the local trains. Roadtown freight service will be at night on the express tracks, the trains stopping at stations located at suitable distances and distinct from the passenger stations. At these freight stations there will be elevators or inclines delivering freight to or receiving it from the land outside, while furniture, etc., for the houses will be elevated to the platform above and carried on the very early trips of the local trains to one's door.

Wrecks on such a railroad system can only occur from actual breaking of some working part, a comparatively rare cause of present wrecks. The local track collision cannot occur as there is only one train in a section. On the two express tracks, "tail-end" collisions will be prevented by a block system that turns off the power automatically when trains approach within a certain distance of each other. This system is in operation in the New York Subways.

The Street Upon the Roof.

Private stairs from each home will lead down to the monorail platform and up to the roof. In the center of the roof will be a promenade which will be covered, and in the winter enclosed with glass panels and steam heated. On the outer edges of the roof will be a path for bicyclists and skaters, who will use rubber tired roller skates. The monorail, which is the business

transportation system of Roadtown, will be placed out of sight and run at high speed, but the roof promenade will be the “street” for recreation and pleasure. In winter the promenade will be a continuous sun parlor; in summer a shaded walk. There will be benches in alcoves along the way and occasional towers over the promenade and tower effects along the edges of the roof beyond the cycle paths or some other architectural effects to break the monotony. These towers will be used as coöperative centers, such as stores, cooking and power, recreation, schools, nurseries, etc. The tower effects are matters of architectural ingenuity, and many architects are already interested in finding ways to lend variety and beauty to the Roadtown as they have to our existing public ways.

Certainly no street or boulevard in the history of the world was ever more uniquely located. The splendid view to be obtained from such a promenade in a dust-free and smoke-free country can hardly be pictured to a city bred man or a countryman jogging along the hedge and weed throttled country road. The view across the near gardens and more distant grain fields, and back over woods and hills to the dim line where land meets sky, will cure forever a score of Latin-named diseases which the eye specialist tells us come from gazing through the dust-laden street or across the dingy court into our neighbor’s kitchen window.

It is upon the roof that the Roadtown will be upon dress parade. Here maids with their lovers will stroll of evenings and matrons with their baby carriages on Sunday afternoons. It is here that children will have never ending sport. Skating and cycling can have an unprecedented opportunity to develop for health and pleasure. It is here that Easter hats will be shown and neighbors’ crops discussed and new acquaintances made and local pride developed.

The question naturally arises as to the sound of conversation from the roof reaching the living-rooms or the sound from the rooms reaching the roof. The cement walls are practically sound proof and for sounds to be heard from roof to house or house to house requires that it pass into the open air and bend through a 180 degree angle. Sound does not travel in that way as one may readily prove by trying to shout around the corner of a ledge of rock or over a stone building. With all windows and doors wide open in the Roadtown home, the only sound of ordinary magnitude to be heard will be from the singing of birds and the play of children in front of the window. The uncanny noise of city streets and of quarrelsome neighbors

across the air shaft will be missing. People who cannot content themselves with the quiet of a Roadtown home will have to use the telephone, electric music, roof promenade or go to the social center. Promenaders cannot stare into nor listen at their neighbors' windows. The Roadtowners' home is his castle in the truest sense of the word, and more private, notwithstanding the close proximity to neighbors, and hence more consecrated to family life than any previous style of dwelling known.

The Roadtown will have no streets because it will need none. As it is built through the country, there will, of course, be roads as well as streets to cross. Here the monorail will run under, and the roof bridge over the roads. At such road crossings and such other places where roads are built back into the country, stables and garages will be provided.

The natural desire to drive one's own vehicles up to the door of his own house will cause an occasional remonstrance against the plan at first, but as people find that there is no need of such roadways they will come to consider the Roadtown road crossings as their front door, when viewed from the auto or equestrian's standpoint, and no more think of the necessity of a private roadway to their own house than that of having their auto sent up the tenth story of an apartment house.

Those who wish to pay a visit to a Roadtown home will come to the nearest point where the railroad crosses the Roadtown or if traveling by horse or auto where the public road crosses the Roadtown and will leave their vehicle in charge of a caretaker and have their name 'phoned in as one does at an up-to-date apartment house or hotel. If the Roadtowners are at home, the caller will then take the monorail or the roof promenade as the distance or his inclination dictates, and thus reach the door of his friend's home.

Such a system will give the humblest Roadtowners the opportunity of the high class apartment house dweller to say that he is not at home to unwelcome visitors, and yet the Roadtown home built on the ground floor with its windows looking out into a private garden will have all the home-like simplicity of a cottage, and at the same time modern conveniences and luxuries which cannot be found in any King's palace.

CHAPTER V

CIVILIZATION THROUGH PIPES AND WIRES

THE economies of a continuous house under one roof and of railroad and steam shovel, rather than hand and dump cart methods, are sufficient to make the line construction far more economical than any method now in vogue, but even they are greatly exceeded by the additional saving involved in the installation and operation of the pipes and wires of the Roadtown.

Witness the present situation. The farmer's house is alone in the middle of his farm. For every pipe, wire or rail utility with which he is supplied, he must have a plant of his own. If he wishes steam heat, he must put in a boiler; if he wishes electric lights, an engine and dynamo.

In practice the farmer, with the occasional exception of the rural telephone, is limited to the products of civilization that can be hauled home in a wagon.

The city man is a little better off. City dwellers are close together, close enough that one electric, gas or steam producing plant will do for many hundreds or thousands of families, but by the present plan which enables them to have these improvements, they pay not only the expense of periodic tearing up of the pavements and the house foundation, but a far greater price in the loss of air, sunlight and privacy.

The Roadtown has these God-given utilities of country air and light on two sides of the house. Upon the other two sides it has blank walls, but the examination of the average isolated residence will show that there is little to be gained in light or air by the two extra sides and much to be lost in privacy. Upon the two remaining sides, *i. e.*, the top and bottom, the Roadtown house has its sidewalk on the roof and its transportation by rails, pipes and wires that are now in the city streets, it has on a far better and economical plan in the basement, now used principally to store old trunks, rubbish and coal.

Picture the installation of a new pipe line through a paved street. The expense and the unsightliness, the danger to human life—and this has

nothing to do with getting the pipes into a private house.

Now suppose you are a resident on that line and conclude a couple of months later to install the utility in your home. Again the pavement is torn up, a gang of laborers spend several days on the job, and you as consumer will pay the bill either in a lump or as stiff rates on the utility sold. The result of this clumsy system has been that pipe and wire utilities in the city are limited to those people who use them to a sufficient extent to stand this criminal waste and expense.

Moreover, in all large cities the matter of installing pipe or wire conveyed utilities is also a question of reckoning with franchise-selling politicians and private monopolists who generally work “hand in hand.”

Compare these conditions, mechanical and political, with the Roadtown where all pipes and wires will be bracketed in a runway beneath the floor of a machine-made house on land at farm prices. To put in a new pipe conveyed utility will cost the price of the twenty-one feet of main and a branch pipe leading to the apartment above through suitable openings made when the building is constructed. The expense will be about equal to that of maintaining the red lanterns which are now placed about the torn up city streets.

As a result of these differences there will be added to the Roadtown home—and I mean to the home of the man of average means—a number of utilities now available only to the rich, or not available at all.

Beginning with the following paragraph I will enumerate some of the inventions that will be available in the Roadtown home. I may include in this list some inventions which, while demonstrated on a small scale, may for some reason not now discernible, develop an objection or difficulty in its use. But for every such a one that I may here include, there will be several others that science has already or will yet devise and which can be installed in Roadtown as soon as perfected and demonstrated with no more expense than there would be if it were put in when the houses were built. This feature alone is a tremendous argument in favor of the Roadtown, for every previous form of house construction once finished is set in its equipment and soon gets behind the age and must be torn down to make room for the new. At this time considerable humorous comment is being made in the newspapers over the tearing down of a twenty-two story building in Wall Street to make room for a forty story one. The old one is only thirteen years old. The Roadtown will always be “modern,” and

increase in efficiency as it increases in length while the separate building is a complete unit with its height and utilities stationary.

Water.

The water systems of great cities are enormously expensive, as it is usually necessary to build great conduits dozens and even as much as one hundred and fifty miles long. The trouble with such cities is that a very large population must be supplied with water from a very limited area. The Roadtown with a population of about 1,000 to the mile will be able to get its water supply from suitable sources all along the way. The length of line to be supplied from one public station will not be great, but the entire main may be opened so that one station can relieve another in case of excessive use of water at any given point.

Sewerage.

The sewage system of the Roadtown will, like the water system, be built in comparatively small units, and will require none of the large and expensive sewers seen in city systems. Wherever the Roadtown crosses a natural valley in the land the sewage can be led off to a reasonable distance from the house line in pipes and used in irrigating non-food crops. The income to be derived from the use of this sewage for fertilization and irrigation will be a considerable source of profit and wholly without the expense attached to city sewage disposal works because of distance from the land and the fact that the point of the city sewer outlet is almost always below the level of land available for such uses.

Heating.

The Roadtown heating system will be of hot water circulated by pumps. The heating plants will be located every two or three miles, which, according to the engineers' figures will be more economical than to have them either at greater or less distance. The temperature will be regulated to suit each and every tenant by the use of the thermostat with a push button

regulator in each room of every apartment. This simple, but marvelously useful device, is now in general use in thousands of first class hotels.

Refrigeration.

The refrigerating system of Roadtown which will be required for food and drinking water purposes could be turned into the radiators and a circulation of cooled water or brine pumped through the houses. I do not say that such house cooling will be established, for the Roadtown house, through which the breeze will have a full sweep, and in which the electrical fans will be plentiful, will have little need for a system of house cooling, but if the people in hot countries wish it and care to pay for it, eventually they can have it.

Drinking Water.

The next utility for the Roadtown house will be that of pure, cool distilled water for drinking purposes, cooled *only* to a healthful temperature. Because of the small expense for piping, this separation of the system of drinking water from that used for bathing and for spraying the lawn will mean that no method known to science for purifying the former need be spared.

In present city life the peddling of so-called “spring water” in bottles, is a farcical affair, which would have about as much chance to survive in Roadtown as an independent oil producer shipping oil in barrels would have in competing with the trust’s tank cars and pipe lines. If the Roadtown is piped for refrigeration, cooling will be very simple. If this is not done the coolers may be placed in the basement and filled with ice manufactured at the central refrigeration plant and distributed by train. In either case, the efficiency will be great as compared with any present system.

Bath and Toilet.

It goes without saying that every home in Roadtown will be provided with good bath and toilet facilities. Because of the fact that the house is of cement and has no lath and plaster ceiling to get soaked, shower baths will probably be much in vogue in Roadtown. If at any time it proves desirable

to give up the space for the purpose there can be shower baths installed in every sleeping-room at a cost of only a few dollars for each. The soap for bath and wash basin will probably be liquid, and while there will not be enough used to make it worth while to pipe it, it can be supplied ten gallons at a time by a man who will make the rounds and fill the reservoirs at each home. This is comparatively a small matter and I merely mention it to show the extent to which the natural coöperation of line house building will gradually lead.

Gas.

For light cooking and local heating in the Roadtown home, to such extent as is desirable, gas will be used.

Vacuum.

During the last few years a great vacuum sweeper craze has swept the country. We are literally deluged with every type of apparatus, from systems for installation in hotels and office buildings, or wagon outfits that chase about the street and run a hose into the parlor window, to the little pop gun arrangement that is worked by hand. The ease of adaptability of the best features of vacuum cleaning systems to Roadtown is too apparent to need comment further than to say that a small pipe, with an opening at each home, and a suction fan every half mile, will be sufficient to give the best possible results.

A further use of this vacuum may be made in connection with automatic movement of windows, doors, etc. Compressed air is now frequently used

for this purpose as in elevator doors in office buildings. Vacuum will, of course, work equally well.

Disinfecting Gas.

A pipe dream of Roadtown that is absolutely practical, cheap and a crying need, will be gas for disinfection.

Electric Light.

Electricity for lighting will, of course, be available in Roadtown at a fraction of the present cost.

Electric Power.

Electricity will be used for fans, vibrators for massage, shoeshining, and other household devices that may demand it as time rolls on. Besides this there will be an industrial use for power which I will discuss in a later chapter.^[A]

[A] Until some cheaper source of power is developed electric heating will remain an expensive luxury.

Telephones.

Electric buttons and signals and bells can be used for the “top” and “bottom” doors of the house, signaling to central stations when preferable to the telephone. The telephone, the cheapest of the pipe and wire group of civilizing agents, common though it is, has not yet come into universal use. In New York City alone there are over three million people who have no telephones and in the United States there are 60,000,000 deprived of that great necessity. In Roadtown the cost of installing telephones will be practically the cost of the instruments, switch-boards and twenty-one feet of wire. If the automatic system is used, which is likely, in local service between a public service center and the houses they wait upon, the cost will be but those of interest on installation and cost of repairs. A telephone expert has estimated that the system complete would be less than ten dollars

per family, and that the expense of operation or telephone rent less than one dollar a year, net, per family, or eight cents per month.

Dictograph.

At the present date there is in practical operation a loud speaking telephone called the dictograph. If this modern invention is installed in the Roadtown home, it will be possible by simply pressing a button to talk over the telephone while sitting in a chair or lying in bed. This instrument has been most successfully utilized in conveying music, which, if received through a horn can scarcely be told from the first-hand product. This wonderful invention, as many other similar ones that now exist, cannot be put into practical use on a large and systematic scale, because of the present city construction, the conduit and other trusts.

Since the preceding paragraph was written, M. K. Turner, the inventor and proprietor of the dictograph, has donated the use of all of his wonderful patents to the Roadtown, and in addition has offered to design an entire system of loud speaking telephones especially adapted to Roadtown use, because of the great uplifting influence he recognizes in its principles when put into practice.

This donation, together with the house pouring scheme of Mr. Edison and the Boyes Monorail, gives to Roadtown fundamental patents on house building, transportation and intelligence transmission—the three great essentials of a new civilization.

Telegraphphone.

The telegraphphone, or recording telephone, is also a most wonderful invention. The telegraphphone records any sound sent over a telephone by means of magnetic changes in a disc or wire. These steel disc records or wire records can then be reproduced any number of times with no loss of distinctness. As the dictograph may be used to give a sermon, lecture or piece of music to any number of people at one time, so the telegraphphone may be used to record and repeat it any number of times.

I could add other inventions to the list, but will not, for these already given, though all practical existing devices, will be so wonderful in application that I will not extend the list to any less thoroughly proven

inventions, lest the reader who can but judge from the viewpoint of the present imperfect city civilization, confuse the Roadtown which is the plan grouping of proven inventions with the dreams of novelists who revel in inventions yet to be.

CHAPTER VI

ROADTOWN HOUSEKEEPING

THOUGH it is true that some work, which in the past rested heavily upon the shoulders of women, has been taken into the factory, notably the spinning, weaving and clothes making trades, and on the farm the making of butter, still the bulk of labor of the women of the average household comes in that group of washing, ironing, dusting, sweeping, scrubbing, making beds, cooking and dish-washing. This is woman's work in the most of our homes, and a servant's work in the homes of the rich.

Woman's Work not Specialized.

Industrial progress has not yet applied to this work of women the specialization and labor saving machinery that has sent forward the general work of the world at such a rapid pace. Another way of expressing the same idea is to say that in at least nine-tenths of the households, the woman is the household servant. If the work be assigned to outsiders, then the privacy of the family circle is broken up and the dearest ties of earth are disturbed by intruders. At present there are two ways out of the difficulty. The way of the rich is the employment of household servants. To counteract the disturbance of family life an elaborate system of servant etiquette has been established by means of which the servant is made to resemble, as much as possible, the cookstove or the family horse. This satisfies the family, but is disagreeable to the servant, and incidently keeps a worker out of productive effort, raises the cost of living to everybody, and deprives her of the most normal expression of womanhood—that of marrying and coddling her own children.

The second solution is for those too poor to employ servants. It consists in eulogizing the "homely virtues" and writing poems about the duties of women in the home and artfully associating the scouring of a brass kettle with the instinct of motherhood. This effort to satisfy the women in the home in playing the personal servant to the rest of the family by enshrining

the dish-rag and broom is nothing new in the history of the world. Those who have benefited from the work of others have always been quick to quote scripture to keep the worker on the job, and as long as there is no other way to get the work done, this plastering over of dirty work with beautiful thoughts is indeed a makeshift virtue, but one of which we shall some day be thoroughly ashamed.

In the Roadtown, this problem, old as civilization, will be solved, not by bringing in outside workers to break up family life, but by sending most of the present work out of the home and simplifying that which must remain until the task becomes so light that each member of the family will perform his share of the housekeeping just as he now dresses himself, or walks to catch the trolley car.

No Laundry Work at Home.

The first function, washing and ironing, has long since been made an industrial function by the rich everywhere, and also by the middle class in our cities. Farmers' wives and the wives of the city laborers still do home laundrying. In the Roadtown, with its perfect system of transportation, the trouble of sending soiled clothes to the coöperative laundry will be very simple as compared with the present wasteful method of city collection of laundry. The service will indeed be so cheap that I fancy Roadtowners will vote to add the expense of the laundry to the charge for rent, thus doing away with the cost of accounts and collections. This would put a premium upon cleanliness, to be sure, and might result in a slight increase of the total expense since our clothes would be washed more often.

In connection with the laundry will be a pressing and cleaning establishment which will likewise be run coöperatively. The pressing machine now used by clothing manufacturers will keep people looking spick and span for a mere trifle.

How far the Roadtowners will carry the idea of a blanket rate to cover the cost for all these things depends on traits in human nature that are pretty hard to anticipate. We force people to coöperate, to build parks and statues to beautify our cities. Do we want to tax them for a chance to be well groomed, or do we prefer to see the other fellow slouchy so that we will

look better by comparison? I for one, believe in allowing civic pride to include live citizens as well as marble statues of the dead.

Dusting and Sweeping.

Dusting and sweeping must be done at home, we cannot send the house out, but we can pipe the house for suction sweeping and discard forever the broom, clothes brush and that arch nuisance, the feather duster, which is used to chase the dust from room to room without getting rid of it. Scrubbing and mopping will be greatly simplified by the cement construction and the convenience of water and sewage. These periodic tasks will be grouped into trades, so that they can, when desirable, be given over to professional cleaners as is window washing in city buildings.

Making Beds by Machinery.

The care of the beds is the next item on our list. The Roadtown sleeping-room will in the daytime have the appearance of a sitting-room or library. One essential piece of furniture will be a couch or divan with good springs upholstered with fire proof material. Plush, leather and linen divan and chair covers will be used alternately to suit the seasons and varying requirements. The divan forms the foundation of the bed. The bedding including a light pad or mattress will be made about a foot longer than is customary. At the foot this bedding and pad will be fastened together by a metal clasp, or “bedding hanger” on the order of a trousers-hanger. In the morning instead of making up the bed—that is, carefully folding up all the germs and foul odors, the bed will be suspended by the hanger in an adjoining fresh air closet. By reversing the action of the rod supporting the bedding, which describes an arc over the unfolded divan, the bedding is spread neatly in place—the bed is made. This closet in which the bedding hangs freely exposed to the air has one side, or rather edge, against the outside wall of the building. This wall space will be formed of shutters which admit of free circulation of air, thus the bed is aired *every day* and *all day*. But there are certain species of “germs,” as every housekeeper can testify, that will survive this fresh air device, for them another provision will be made. This closet will be piped for a certain kind of gas which will be selected by the Roadtown biologist. At stated intervals the outside

shutters will be tightly closed as well as door of the closet and the bedding fumigated instead of aired. This method can also be used to disinfect clothing.

There will be few rats or mice in the Roadtown home, for there will be little food left around to attract them, and no places for them to gnaw through or build their nests. In the average city building used for factory purposes, the damage from rats and vermin, I am told, is often over 10 per cent of the gross sales.

Coöperative Cooking Practical.

Coöperative cooking, in spite of the first natural antipathy, has gained considerable ground in city life. We find it in two forms, the dining-out habit and the delicatessen habit. The first is expensive of time and money, and destroys the most delightful hours of home life. The second is likewise expensive and results in a diet consisting chiefly of bread, cheese, cold meat and pickles. The weakness in both systems is in the matter of imperfect transportation. In the first case the people must be taken to the food, and hence out of the home. In the second, the food must be brought into the home by a system of delivery that greatly increases expense and limits the quality, quantity, and variety of the available meal. The Roadtown, built in the one straight horizontal line, will make possible the use of a mechanical delivery system which is not now available even for hotel service.

The mechanical carrier will be on the order of that used in the Library of Congress as a "book railroad." It is inexpensive, noiseless, and can by means of a "key" be set to switch automatically at the house for which the "car" or "carrier" is intended.

The Roadtown cooking will not be done in a single kitchen, but in a number of large establishments, such as bakeries, creameries, boiling, roasting establishments, etc. The prepared foods will then be sent in suitable quantities to serving stations located about half a mile apart, and there kept hot in the warming closets. Here the frying, broiling, and other such types of cooking will be performed to order.

The bill-of-fare will be sent out by Roadtown mail. The people will order by 'phone and the foods will be on the sideboard in the Roadtown dining-room in less time than it takes to bring it by the two-legged route from Delmonico's kitchen to his dining-room. But in the dining-room a

difference arises. The carriers must be opened and the dishes and food arranged upon the table by the women folks—a homely virtue left that the household poet may not be entirely without material.

The usual meal will require two carriers, one of which will be heated, and the other containing butter, milk, ices, etc., will be chilled. Many changes of fashion will be required in the form and material of dishes for containing and serving food—changes that will doubtless “upset” the good dames who have found virtue in soup tureens that can slop over, but it is needless to add that their Roadtown daughters will be more “upset” at the thought of a return to present customs.

At the close of the Roadtown meal, the dishes, food remnants and soiled linen, will be put into the carrier, and dropped down a little chute where they will travel merrily to the public dish-washery. Here a few men with the aid of machinery will do the work which now occupies half a hundred mothers while their families adjourn to the library, music-room or to indulge in a nap.

In the Roadtown household there will be no furnaces to tend, no ashes to haul out, and no marketing to do. The garbage waste will be only the table refuse which will be placed in a paraffined paper receptacle and sent back with the dishes. A bag for waste cloth and paper will complete the waste disposal system.

The End of Household Drudgery.

In such an environment with the baby cared for by experts in the nursery or kindergarten only a thousand feet away, the mother will have time to operate an electric sewing, knitting, or one of many other automatic and noiseless machines, work in the garden, read, visit, or attend the theater, lecture hall or church. Indeed the Roadtown woman will be free to do anything and everything she chooses except home drudgery.

The Roadtown idea will at first produce a long low wail from the thousands of men readers which will begin and end with a plea for “mother’s cooking.” The Roadtown cookshop is coöperative, but the dining-room is not. And the cookshop will be there to fill the need of the coöperators, not to make money. If there is demand it will have uncooked food to send out as well as cooked food. Nor will there be any law against the bringing into one’s home the fruits of one’s own garden, berry patch,

and poultry yard. Roadtown folks that keep a cow can take their choice between setting the milk in the spring and letting the cream rise or sending the milk to the creamery where it is aërated, chilled, pasteurized, and bottled, and the fat contents standardized, and thus sent back as 4 per cent milk to drink and 20 per cent cream for the strawberries. Personally having tasted both kinds I prefer the scientific product.

Every Roadtown home will have a boiler for hot water, a chafing dish and as much more cooking apparatus as may be desired. The wealthy matron of to-day keeps alive the sentiment of mother's cooking by making the tea, frosting the cake or making the salad dressing. The Roadtown mother can do the same, and as much more cooking as she likes, but once the opportunity is given for people to find the actual economy of coöperation and to see the folly of heating up a whole house to do one family's cooking, the amount of cooking mothers will do will be decidedly limited.

Sentiments can bar out progress for a while, but where there is a great economical saving with nothing to lose but sentiment, economy generally wins. How would you, Mr. Home-is-sacred-man, like to thresh or flail the wheat by hand in order that the family might eat pies made of hand threshed wheat as well as to eat mother's pies made of machine prepared flour?

This game of jollyng mothers into playing household flunkies by complimenting their products is getting thin, and a lot of mothers are beginning to see through it.

The coöperative preparation of food will have many indirect effects. A Roadtown ten miles in length could well afford to have its own canning factory, cold storage, and, if the trusts become too dictatorial, also its own packing house. The Pure Food Law in Roadtown will be a dead-letter, for the buyers will be food experts and will have nothing to gain by defrauding the people, or helping to keep them in ignorance. With a double cause for watchfulness, economy and health, it is hardly likely that such a buyer would find it worth while attempting to go in partnership with food adulterators. Certainly the inducement to adulterate is much greater in the world to-day, for every man involved in it, profits by the practice, the consumer alone, woefully ignorant of the whole subject, is the only dupe.

Not only will the Roadtown buyer get pure food, but he will get all food at wholesale rates. The frightful waste, due to the putting up of food in small cans, bottles and cartons, is little appreciated. I recently tested this

principle by buying olive oil. The oil was priced me at \$1.80 a gallon, but the oil I secured in fifty cent bottles I found cost me \$7.00 a gallon. Cotton seed oil was priced at sixty cents a gallon. I purchased a five-cent bottle and found that I had paid at the rate of \$2.25 a gallon. These are indisputable facts and they could be multiplied indefinitely. In barrel or car lots the above gallon prices would be greatly reduced.

All Roadtown foods can be bought in bulk direct from the makers at makers' rates. The vegetables will be crisp and fresh from the Roadtown gardens. The profits of the middlemen, of retailers, of adulterators and advertisers, the cost of bottles and cans, of delivery boys and bad grocery bills will certainly be eliminated with one fell swoop. It will reduce the cost of living, mark you, at such a rate that the unsophisticated will confuse a Roadtown meal with a charitable soup kitchen. But if you don't believe this, write to your country cousins and find out just what is the producer's price on the material out of which a meal is made.

CHAPTER VII

THE SERVANT PROBLEM IN ROADTOWN

THERE will be no servant problem in Roadtown, as there will be no need for servants.

CHAPTER VIII

ROADTOWN AGRICULTURE.

MARKET gardens near our cities are worth several hundreds of dollars per acre. But there are millions of acres of land more fertile than a Brooklyn market garden that cannot be used because there is no way to get fertilizer to it or products away. Transportation is more important to land values than fertility.

A modern city of a hundred thousand inhabitants is about six miles in diameter, within "an air line" mile of the edge of that city will be about twenty square miles of land, but this land will average three and one half miles from the markets which are usually clustered in the center of the city, but if the street system is of the checker-board type, the edge of the city between the compass points will be five miles by street from the markets.

A Roadtown with a hundred thousand inhabitants will have within a mile of its house line "edge," or "center," two hundred square miles of land area, ten times as much as in the above case, and this land will average but half a mile from the market to which the gardener must needs transport his produce, which is only one-tenth the distance under the present day conditions.

Another advantage of Roadtown for intensive agricultural development is that, because of the numerous other functions that transportation is to serve, Roadtown agriculture has a perfected system of transportation immediately at its service to say nothing of an immense consuming population on the line.

The first impression of a casual reader when Roadtown agriculture is mentioned, will be that reference is made to the play-farming, chrysanthemum and chicken breeding indulged in by suburbanites. On the contrary, though suburbanites living in Roadtown will undoubtedly play at farming much to their physical and mental betterment, we are here speaking of the agriculture that will be the leading industry of the fully developed Roadtown.

The trouble in grasping the possibilities of Roadtown agriculture comes from the difficulty of renouncing our old viewpoint. The typical farmer with his house in the middle of a quarter section of land, half of which is fallow, and on the other half of which he carelessly grows food for live stock of which only 6 per cent of the nutriment is recovered in the form of meat, will be inclined to make light of the idea of farm houses being built touching each other. On the other hand the city dweller, especially of the older Eastern cities, which were located chiefly in reference to navigation and are more likely to be surrounded with water, swamp, rock and sand than by soil, find that when the little remaining land has paid toll to railroad and coal yards, millionaire villas, and deer parks and land held by speculators, who discourage its agricultural improvements, there is little remaining to give one the picture of the close proximity of the consumer and the food supply.

In spite of the previous bias of these two viewpoints, those familiar with the possibilities of intelligent agriculture will see nothing strange in the prediction that the farmer of the future will live next door to the “city” consumer of his wares.

Sufficient Land to Support Population.

In the first place, the locations of Roadtown will be through districts where there is little loss through uncultivable soil. With twenty-one foot houses, there would be almost two and one-half acres per family for each mile one goes back from the Roadtown line. Thus within a mile (counting both sides) of the house line will be five acres per family. But in no section of the Roadtown will all the families be engaged in agriculture. In typically agricultural sections of the country to-day about one-third of the population live in villages and towns. This population is composed of retired farmers, traders and professional men who serve the farm population. In Roadtown civilization this population would live in Roadtown lines. Near cities the commuting population and everywhere the manufacturing population who are only engaged in agriculture on a small scale, or not at all, will release more land for the Roadtown farmer. If the proportion of agriculture to other enterprises is the same as in the country at large, the area available to the support of an agricultural family within a mile of Roadtown will be about twelve acres.

But we have limited our calculation to land within a mile of the house line—why? Evidently for argument's sake only, for there is no other reason. In the country districts children frequently walk two or two and a half miles to school. The average distance from the post office is three or four miles. The average haul to the railroad, five to seven. The average distance to the other good things of civilization is so great that the farmer doesn't go at all, he is often referred to as a "Hayseed," unsophisticated, civilized to the extent of the civilization that can be shipped by rail and be hauled home in a wagon. The Roadtown will pour into the farm home all the luxuries and refreshments of civilization at its best. In return it brings him a new problem in the relative location of his home to the land he cultivates. The result will be a wonderful rearrangement of the whole scheme of agriculture. The land, whether owned by private individuals, the Roadtown corporation or the Federal government, will be cut up into plots, larger and larger in size as the distance from the Roadtown increases.

Next to the house on both sides will be plots or gardens about the width of the house, and probably partitioned from the neighbor's by trellises of vines or hedges of shrubbery. These plots will be of sufficient depth to give ample privacy to one's doors and windows. These front yards—there are no back yards or back alleys in Roadtown—are but the outdoor part of private homes, and will perhaps be devoted to shade trees and lawn on one side, and to garden stuff on the other. Though these yards in Roadtown etiquette will be strictly private as far as an outsider's presence is concerned, they will still be within easy view of promenaders on the roof, and for the same reason one is not allowed to dump rubbish on the front stoop in the city, the Roadtown yard will be under the general oversight and supervision of the Roadtown landscape gardener.

Beyond the private gardens will be vegetable gardens, then chicken yards, greenhouses or pigeon flies. Beyond these in larger plots will be berry patches and coarser vegetables, and then orchards and dairy barns and pastures, and farther still, grain fields, and beyond that, forests.

The distance back which land will eventually be tilled by farmers living in the Roadtown, is a matter on which I hesitate to express my opinion for fear it will discredit the worth of my judgment in the minds of those who have given the matter no thought, but I think I can carry the points by examples: Imagine yourself to be a farmer of the future, and accustomed to the luxury of civilization; suppose you wish to raise flax as a main crop, and

breed pigeons and grow dew berries as side issues. The pigeons and berries you could have at a few minutes' walk from your Roadtown home. The flax would require your attention, plowing and seeding a couple of weeks in the spring, and harvesting again a week or so in the summer. Would you prefer to go five miles to that field every day for fifteen or twenty days, or even take a tent with you and go twenty miles and camp there, and for the rest of the year enjoy the coöperative and waste eliminating features of the Roadtown home life, or would you live in a frame house on the land and wash your face in cold water and get up winter mornings to start a fire and drink impure water from a polluted well and make your wife a kitchen scullion, isolated and lonely, and send your children two miles through the storm to an inefficient country school?

Two of the most immediate advantages of the Roadtown for agriculture are heat and water for lawns, greenhouses and gardens. How far this water service can be extended from the Roadtown main will of course depend upon the nature of the supply. But it has been abundantly proven that water for irrigation, even in the most moist sections of the United States, was a wonderfully profitable investment. Sewage will find a special use as fertilizer as before mentioned, and the Roadtown garbage disposal works will doubtlessly have a residue for the land.

Horse manure as a fertilizer is gradually vanishing from industrial life, and the Roadtown will eventually depend upon the chemical fertilizers, "green manure" crops, and from the animals upon the land for fertilizer.

The distribution of fertilizer as well as the receipt of heavy freight, will require a freight station located about every quarter or half mile. The opening of the ground for access to the tracks will disturb a yard or two which will lessen the rental value of the house above, just as the rental value of thousands of city houses have been diminished by the presence of elevated roads. In practice such locations in the house line will doubtless be used for some of the numerous non-residential purposes for which room will be occasionally planned to suit the local conditions.

Transportation will enable the better development of coöperative features, such as creameries, hatcheries and nurseries that now thrive under

adverse conditions and will doubtlessly encourage the development of others not now anticipated.

Elimination of the Middleman.

The markets of Roadtown can hardly be compared to present conditions at all. Where the farmers of to-day go to the railroad station with their produce, Roadtown farmers will leave theirs in the warehouse of the food department. The 25 to 75 per cent of the price that now melts away between the producer and consumer will of necessity be divided between the producer and the consumer.

The Roadtown, either through its central coöperation or in the form of individual citizens will be a great consuming market for the Roadtown farmer. Certain products, however, for which the locality is especially adapted must necessarily be sold outside the Roadtown. For such, salesmanship coöperation as is now carried on in the Ontario and California fruit belts and in the creameries of the Middle West and trucking districts of the South will be brought into play, and with the Roadtown transportation system and storage warehouses its farmers will surely not fail where the former have succeeded.

Coöperative Ownership of Farm Tools.

Well managed coöperation will also find another field in Roadtown agriculture in the form of coöperatively owned tools. I fully believe in the electric plow, for instance; an invention which the writer worked out some years ago in the form of a flexible cable which would unwind from a cylinder on the plow as the plow moves out from the electric plug, and will rewind as it returns. Such a device as I propose is entirely practicable and has simply failed to be developed because of lack of cheap electric power near the land to be cultivated; however, the old reliable horse will be used back from the Roadtown line and as near to it as he proves economical and desirable.

The use of electricity for agricultural power, is a part of the future programme of the world as the land becomes more thickly settled and as land to raise horse food gradually diminishes. How fast the change will come will depend upon how rapidly the storage battery and the means of

conducting electric power are cheapened through invention. At present the electrical truck competes successfully with the gasoline truck, and Edison storage batteries are now replacing the horse cars in New York streets where the traffic does not warrant the regular electric car. I believe the most economical agricultural conveyances in Roadtown will in a short time, if not from the outset, be light electrical storage wagons and that the use of such vehicles as well as electrical cultivating instruments will gradually extend back from the Roadtown as intensive agriculture develops and electric power is cheapened.

CHAPTER IX

INDUSTRY RETURNS TO THE HOME

AN influential factor in the development of manufacturing was the invention of steam power. The industries that use machines were forced out of the homes and into the factories. There was no alternative. The steam driven machines produced goods so cheaply that the hand power, or home machine could not earn its owner a livelihood. Thus the factory system developed, partly because of the mechanical necessity of concentration where the power from one engine could by the use of shafts and belts be made to run a great number of machines, and partly because of the natural tendency of the man with the most money to acquire possession of the factory and have others work for him.

Later the invention and perfection of the electric generator and motor made possible the distribution of power and the machine, with its motor attached, again became feasible for individual ownership. Difficulties, however, exist. These difficulties are the present capitalistic ownership of the material and machines, a lack of properly organized coöperatively conducted sources of power, present land ownership, house arrangement, and of getting this power to the worker; and what is of much more moment, the complete possession by capitalistic interests of the entire system of trade or distribution from the great railway combination to the retail shop, through which the individual worker must market his products.

Wage-slavery Doomed.

The ideal—and as I believe—an attainable ideal in a large number of Roadtown manufacturing industries is coöperation in the use of land, machines, power supply and transportation of products, and individualism in the actual operation of the machines and working the land. This will forever solve the labor question by abolishing the wage-system. Let us look at the details as they will be worked out in the Roadtown.

The first essential in such a system of coöperative individual producers is power. For this the Roadtown will have to compete in the markets of the world.

Roadtown will possess great advantages in this respect where it passes water power and coal fields and can buy them. Roadtown power plants, coöperative stores and cooking plants, will be located where railroads, canals or rivers cross the Roadtown, when practicable, to save the double handling and freight on coal. Otherwise the coal will be loaded into Roadtown cars by steam shovel and hauled at night to the power houses where the monorail coal cars will be dumped directly into the stoker reservoirs. The same heat will be used for generating power, heating the building, cooking the food and for whatever other purpose heat is required and the chimneys of Roadtown will be miles apart. There will be no wagon haulage of fuel in Roadtown life. Other sources of power, such as water, wind or waves, when developed will become available for the Roadtown.

The transmission of Roadtown power will involve none of the losses from which exposed transmission systems suffer because of the weather. The actual cost per horse power used will be far less than in present city distribution.

A Work Room in Every Home.

Every room in Roadtown will be wired for light and power, but the general building plan will presume that all regular industrial operations are to be conducted in a room on the lower floor of the house which will be equipped with power sockets and bolt plates in the floor and a non-vibrating foundation installed for machines. This room will be located where it will have ready access to the transportation lines, probably by a trap through the floor through which a case of goods can be dropped to a position where it can be automatically swung aboard a slowly moving "pick-up" car at night, something after the manner a mail-bag is now snatched from a post beside the railway track.

This work room will be separated from the rest of the house by sound-proof walls. Of course no room can be made absolutely sound proof, for where fresh air goes sound goes also. Very noisy industries as well as those that deal in bulky or malodorous substances must of necessity be out of and at a safe distance from the resident portion of Roadtown. The Roadtown

work room, like the coöperative cook shop, though it is there to be used and will be equipped for a work room, yet its use as such is not obligatory. The power socket may be plugged, a rug thrown over the bolt plates and the work room used for a children's play-room, a sun parlor, a palm garden, or a living-room. It is rented with the house, equipped to receive suitable machines, but if the tenants have other uses for their time, it is their affair.

The following industries will come early to the Roadtown: clothing manufactures, knitting, lace and needle work, millinery, artificial flowers and other decorative work, including all art and the so-called art crafts, jewelry, toilet articles and small household notions of all sorts; wood and cold metal workings, toys, hats, gloves, shoes, book-binding, and many similar types of light manufacturing.

The Roadtown corporation will have machines for suitable Roadtown industries made of certain standard sizes to fit the workroom described. These machines will be for sale or to rent to the tenant. Under the old system of industry, men, constantly fraught with the fear of losing their jobs, are always anxious to buy and own the tools of production. In Roadtown practice there will be nothing to gain by private ownership over publicly owned machines. The corporation will charge just enough rental to maintain and repair the machinery and replace with new ones when the old are out of commission. The operator of the machine will find it more profitable to invest his savings in the bonds of the corporation than to make his own repairs or to replace his own machines. Another advantage of renting your machine is the option you have at all times, that of exchanging it for some other kind of machine.

Whether the factory is brought into the home, or the man induced to go to the factory will, of course, depend upon the nature of his work. Sometimes it will be cheaper to move the product, sometimes cheaper to move the man. In either case the perfected system of transportation is of equal importance.

The selling of farm products coöperatively is practical, as is being abundantly proven in the United States and to a greater extent abroad. There is no valid argument that can be put up against coöperative buying of the raw material and selling of the finished product of the Roadtown workers. Such coöperative buying and selling should not for a moment be classed with the graft tempting work of the municipal or government buyer. In the case of the government the money which is used to buy cavalry horses, for instance, is raised by revenues upon diamonds or cigars. There is here no

relation whatsoever between the man who pays the taxes and the buyer of the goods. In coöperative buying the connection between the man who pays and the price that is paid will be close indeed. The buyer of leather for Roadtown glove makers would be held even more closely responsible for honest buying by the consumers of the leather than by the stockholders of a present corporate glove factory, for in the corporation factory there is a chance to hide poor buying behind good selling in the final report to the stockholders. Every move of the buyer and seller of Roadtown workers is then and there made known to the Roadtown workman or group of workmen who has the immediate right to recall the blundering representative. The trouble with government officials is that they are too far removed from the people who supply the money which they spend. In Roadtown that connection will be close and quick in action. It will be corporate industry with interest to small or large investors, but control and profits for and by the workers.

The bondholders will have an ever vigilant and directly interested army of workers who must of necessity safeguard their mutual welfare. The worker cannot avoid this service to the bondholder, hence he is the best protected bondholder in all the world. I do not here refer to values; that is covered elsewhere.

A New Type of Factory.

I believe there will develop in Roadtown a form of factory that is intermediate between the large privately owned factory as it exists to-day and the individual work room of Roadtown. I refer to the small coöperative factory, organized by a band of workers whose separate operations are needed to complete a single article. For illustration, suppose a group of employés of a shoe factory are dissatisfied. Instead of going on a strike they would organize a coöperative Roadtown Association and move into Roadtown. They could arrange for houses adjoining and throw their individual work room into a continuous work room large enough to accommodate them. They could elect their own foreman and decide the proportion of profits to go to different grades of work and embody these conditions in their charter. These inner coöperators would buy and sell through the central organization of the Roadtown, as will the individual workers. Here we will have the mechanical saving of the combination of the

several operations—the commercial saving of centralized buying and selling, and the profits going to the workers, not the least of which would be the satisfaction of independence.

Once Roadtown becomes an established fact, single workers, little groups of workers, and whole armies of workers will be seen leaving the old system for the new. It will be a strike for all time, a strike from which the hiring of strike breakers will be an empty retaliation, for the Roadtown worker will not only work better but his products will be less destroyed in the mill of competitive selling—he can undersell the strike breaker, being employer, and because the food and house and things he buys of the other workers will cost him less and serve him better; the workman who joins this final general strike can work and live better, yet cheaper, than his successor in the old factories. It is the beginning of the end of the barbarous so-called “factory system”—and the end is that each work will be performed in a way that is most economical to society as a whole.

A Special Message to Women.

The Roadtown has a message not only for men, but for women, and most especially for young unmarried women who are looking forward to the time when they can fulfill their highest mission on earth, that of establishing a home and raising a family. You need not put off the wedding any longer than the time when you can pay a couple of months' rent on a Roadtown home, a deposit on a machine, enough to buy raw material to keep you and the machine busy for a couple of weeks and enough seed to plant the garden. If “John” has a position he can retain it and commute without leaving you to stare out the window of a city apartment with nothing to do all day or frightened and lonely in an isolated farm house. If he hasn't a job he may run a machine and work the garden also. If he is good to you, you will be happy, and he is apt to be, for he knows you are not dependent upon him for a living now that you are freed from household drudgery and can earn as much as he. The Roadtown will enable you to marry the man of your choice regardless of his ability to thrive in the present unfair struggle for a marriage portion and enable you at all times to free yourself from him on account of your economic independence, if he proves to be the wrong man.

The saving in coöperative buying and selling is going to be the means of throwing many men out of employment, just as has been the case with the inventions of all labor saving machinery and methods. When a man in middle life has to fill a new occupation it is indeed a serious matter, but one against which it is useless to fight. If a man had been sent down the track swinging a lantern to warn an approaching train of a broken rail, we would hardly countenance the holding up of traffic after the rail was repaired, because the man wished to continue swinging the lantern. The Roadtown makes no apologies to the workers whose services it will render useless. When we get well, we dismiss the doctor. It is said that some doctors keep us sick to keep their jobs. Be that as it may, certainly there is no denying that he who opposes coöperation, in an attempt to preserve wasteful or unnecessary operations is a malpracticing economic physician. To the man Roadtown throws out of a job, it offers a chance to engage in productive labor where one cannot get out of a job, because so long as men receive the full fruits of their toil, with free and untaxed exchange, over-production as an economic calamity is an absolute impossibility.

The End of Monotonous Labor.

Thus far we have discussed agriculture and manufacturing as industries to be engaged in by different sets of workers. In practice, I believe they will be bountifully intermingled. A man may work at a shoe stitcher for three hours, turn off the power and go out and hoe potatoes. Likewise his wife may run the same machine, or a lace machine for a while, and for a change of occupation operate the electric hoe (something on the order of a dentist's drill, only much larger) in the vegetable or flower garden. Not only will Roadtown free the factory worker from wage slavery, but it will free both farmer and machine worker from long hours of toil at monotonous work. It will free our civilization from the curse of making machines out of men; it will sift out the indolent and place them at the bottom of the scale of life's good things. It will reward the industrious as much as man can be rewarded without being given power to enslave his fellows. It will make men free; it will abolish machine men, factory and sweat shops, and child labor and woman's economic dependence on man that makes her a sexual slave. And such work, such making of children into men and women instead of automatons, may lessen the speed at which some machines are fed, and may

even make tissue paper flowers on hats dearer, but it will certainly make cow butter and big red apples cheaper and real flowers more abundant and raise the per capita valuation of human life.

CHAPTER X

ROADTOWN MAKES CO-OPERATION PRACTICAL

IN the modern world there is no such thing as an absolute individualist, or an absolute coöperationist. The most rabid enemy of socialistic and coöperative movements sends his children to a coöperative school, puts his mail in a coöperative post office, and pays the coöperative preachers; he drinks coöperative water and uses the coöperative sewage system and drives his automobile on a coöperative road. On the other hand, the most enthusiastic socialist wants to write his own books and paint his own pictures and sign his name to them and get the glory. Why, then, should the poultry breeder, or the skilled bookbinder cast the individuality of his labor into the melting pot of coöperative production?

In Roadtown the lamb of socialism shall lie down with the leopard of individuality and a child of the common good shall lead them.

A Mecca for the Individualist.

The Roadtown corporation will stand ready to sell the product of the individuals or that of the coöperative producers, but it will not prohibit them from selling individually if they so desire. If, for illustration, a man should wish to complete the making of a glove, though he accomplished but one-fifth of the combined work of four men, yet if this man prefers to take less pay or work longer hours in order to have the satisfaction of working for himself and seeing one piece of work completely through to the finish, the community would have no complaint—he would pay his own way and would get his pleasure from the independence in his work. In so doing he may develop in himself or in his child the latent qualities of art that machine-like application would blot out forever. In like manner, men with strong social temperaments, to carry out their ideal would sometimes attempt to conduct agriculture, or artistic work together that could be run at greater total productiveness individually. If the difference were greater than the lessening of consumption, the venture would fail. But if the difference

were slight both types of workmen would produce better when doing the thing they wish to do and the community would get better work, and what is more important, better men.

The Roadtown by opening up the highways of exchange to all, and preventing the development of huge privately owned corporations, gives opportunity for the free play in both individual and coöperative production. The trust system of industry we have to-day allows only such forms of privately owned industries to exist as cater to its own need. Coöperative retail stores are commonly boycotted by the wholesalers, a notable example of which was the coöperative store organized by the federal employés at Washington. On the other hand, wholesalers commonly dictate the retail prices at which their goods may be sold by so-called competitive retailers. The retailer who cuts his price is boycotted. There is no individualism, all are tools and puppets of the trusts.

The Roadtown Department Store.

The Roadtown will supply the wants of the people through coöperative stores. This does not mean that Roadtowners will be prohibited from buying outside of Roadtown or from selling his own product inside or outside of Roadtown, but it does mean that the general game of private merchandising will in Roadtown be a coöperative function and that the wasteful multiplication of the small shops will be eliminated. The various departments of the Roadtown department stores will not all be in one place, but will be strung along the line at intervals of great enough length to give the greatest economy in delivery. At every food serving station will be a store supplying the common daily needs, especially those that are almost always ordered by telephone. These will likely be located about every half mile. Other classes of merchandise less frequently called for will be located at greater distances; thus men's haberdasher shops might be every three miles and millinery stores every two miles, while one artist's material shop would suffice for an entire hundred miles of Roadtown.

The same system of varying lengths of units will apply to all Roadtown utilities. The units will be made of such length as is found to be most economical. The population which patronizes three serving stations may all get their heat from a single heating plant, while the length of two heating

systems might be found a profitable unit to be put under the charge of one landscape gardener.

This feature of Roadtown offers great economies over the single large building. For instance, in an apartment house accommodating one hundred families, light, heat, telephone, sweeping systems, etc., must all be one hundred family systems, regardless of whether that is the most economical unit for the system or not. Roadtown utilizes every utility in length which gives the maximum efficiency for that particular device. The foregoing sentence consists of fifteen words, but the truth expressed therein is of tremendous economic significance. Think it over.

Coöperative features of Roadtown which require special centers will be located where special towers or façades can be built to break the monotony of the house line.

The advantage of the universal transmission of intelligence will be seen in all the industries of the Roadtown. The entire industrial and living system will be equipped with telephones just as are the various departments of a large factory. For illustration: The Roadtown will employ an agricultural expert. At his office will be kept soil maps of the entire Roadtown area, and he will be in a position to advise freely with the farmers along the line what to plant, where to plant, and when to plant. Or if a farmer finds a new kind of bug eating up the cabbage leaves, he will simply pick a few bugs, put them in a bottle and send the bottle by mechanical carriers to the agricultural office. The agriculturist will then advise him by 'phone as to what course to pursue.

The same close touch with the producers on the line will apply in the case of the supply of food growing in the gardens along the line. The gardeners from day to day can 'phone the chef what they will have to offer, and he can arrange the bill of fare accordingly, while the manager of the store can keep the Roadtownner posted on the probable demand for various goods made in his work room.

CHAPTER XI

ROADTOWN EDUCATION AND SOCIAL LIFE

AN ideal social life is one in which people can be together when they wish to be together, and alone when they wish to be alone. The better the transportation facilities, the more nearly of attainment is such a condition. The Roadtowners in all thickly-populated sections will be within commuting distance of nearby cities and the attractions of these centers will be open to them. But such social life, even for those who live in the city, is sadly deficient. City people have theaters, libraries, churches and crowds, but they do not have neighbors with common interests. The Roadtowners who get the food at the same kitchen, and hear the same band play, and sell their products coöperatively, and promenade on the same endless roof garden, and send their children to the same instructors, are going to get acquainted if they so desire. The entire Roadtown will be in connection by the loud speaking telephone, and folks can call on each other on a stormy night without so much as getting out of their comfortable rockers, but, for that matter, while there will be more to keep a Roadtowner at home, there will be less to keep him from going away from home when he wants to. If anyone is lonesome in Roadtown, it is simply because he has no friends, and if he has no friends, it can scarcely be anyone's fault but his own.

But the social life of Roadtown will not be limited to city trips and neighborly calls. The Roadtown will have coöperative amusement centers, just as it will have coöperative kitchens and stores. At spots where the Roadtown crosses streams or passes the mountains or the sea shore and at certain distances apart, amusement parks will be located. Here will be the athletic grounds, swimming pools, gymnasiums and the means of entertainment common and uncommon to like resorts. At more frequent intervals in the Roadtown, and so distributed as to give picturesque variety to the house line will be museums, art galleries, theaters, lecture halls and dance halls. All such features that are supported by the corporation must, of course, be open to all residents. Organizations that are not for the benefit of the majority of the inhabitants will be supported by their adherents. The

halls of the association will be open to all meetings, religious or otherwise, where nonconflicting dates can be arranged.

The Roadtown will offer opportunity for the revival of athletics upon a scale unheard of since the Olympian games of ancient Greece.

Roadtown Athletics.

The Roadtown community, because of the spirit of coöperation and mutuality which will pervade all phases of life, will extend into mature years the institutional patriotism which forms such a large part of modern school and college life. Under such conditions we may expect to see developed a grand series of meets in all manner of competitive arts and sports. The winners of the local meets or exhibitions will again compete at the grand athletic and art centers.

The Roadtown will bring the opportunity to indulge in the sports and recreations much nearer the life of the whole people than in the present civilization.

There is no reason why every boy, big and little, should not attend the ball games and athletic meets on the home field as well as the grand finale in which his team participates.

Transportation will cost him nothing, the ball ground will be owned by the community and the hours of Roadtown labor will be set by the will of the worker and not by the greed of the capitalist's purse.

Education for Old as Well as Young.

Roadtown education will apply to all ages of both sexes. The whole living scheme of Roadtown will be a vast school. The modern school, a place where we send our children to be herded in immense droves under the care of girls who use the teaching profession as a makeshift until an opportunity of marriage arrives, is far from perfection as a means of child development. The disciplinarian system of education which crushes out individuality and molds all children in the industrial-political virtue of being bossed, is likely to vanish as a population is freed from economic slavery.

Roadtown will provide instruction for those who wish to learn and citizenship prizes and privileges will go to the educated, and compulsory education and graded schools in time will have no excuse for existence. These are striking statements and I am simply calling attention to the change that I believe will come about naturally and unresisted.

The Roadtown will have to pay county taxes, but on account of its 1,000 population to the mile will influence the location of these schools in Roadtown. At first the use of the present public school methods must necessarily be employed; gradually as the Roadtown gains influence and better teachers are secured the educational system can be adapted more closely to Roadtown life.

In the first place, the Roadtown home will be an enlightened one. The Roadtown library will be a book store house, not a reading-room. If the citizen wants a book or magazine he telephones the library and in a few minutes the book is delivered to him by mechanical carrier. The kind of free library we have to-day requires ten cents car fare and much time to get a book.

There will be a library of telegraphophone records, which do not have to be duplicated for every household, but one set at a central office will suffice, where one girl can run a complicated programme of music and lectures for many homes.

Eyes to be Used Less and Ears More.

Excessive reading is hard on the eyes and it lacks much of the efficiency that auditory methods have of conveying ideas. Our education has been entirely too much from the printed page and too little from the use of the ear. The Roadtown dictograph and telegraphophone will change all this. The child who has not yet learned the letters can be taught to speak German and told stories of nature and history. And in all this education the parent will learn along with the child and become fascinated by such a wonderful process. The significance of this telegraphophone and dictograph will never be appreciated until we have it in operation. The telegraphophone is not a cheap instrument to build, but when operated on a large scale will be extremely economical for each family. From a programme announced in advance a choice may be had from a hundred pieces kept playing at once. More than one wire can lead to each house if desired. The family may be in the

drawing-room, listening to grand opera or a lecture on philosophy, and Jimmy may be upstairs, tucked in bed with ear muffs clapped over his curls, being put to sleep by Sinbad the Sailor or the Twenty-third Psalm, according to his mother's idea of child psychology.

Outside of the visual and auditory library in the home, the second great new feature in Roadtown education will be the home work of the child's parents. In work room and garden the child will learn what the world is for. About the most pitiable thing imaginable is a child whose parents do not believe in child labor. I do not mean the killing of children in mines and mills, but the child labor such as you see on the wholesome farm, where the child does his part along with the rest of the family.

The present system of keeping a child from all work until his body and mind are formed and then plunging him into industrial life is only exceeded in folly and cruelty by the child slavery system commonly known as "child labor." "All work and no play makes Jack a dull boy," but all school and play and no work makes Jack a jackass.

The Roadtown child will learn his parent's occupation, and his uncle's and aunt's occupation, and his neighbor's occupation, and will have more ability to take care of himself when he is ten years old than the present city-bred college man of twenty.

But the community as a whole has some claim on the child's life and the child's future as well as the parents—a fact that all intelligent parents will recognize. For this reason instruction outside the family is desirable and will be arranged by the Roadtown public school system.

The occupation of housekeeping having been eliminated, the kindergarten teaching force of Roadtown will be composed of women of mature minds, many of whom will have borne children and are therefore equipped with actual experience in caring for them.

With the entire population to select from more real or natural-born teachers will be found than under the present régime, where most married

women are limited in occupation to family food manufacturer and household drudge.

Mothers for Public School Teachers.

To these instructors the children will go at hours as arranged for. One woman will take little tots into her home to amuse and care for them while their mothers are away or at work. Another will instruct the children in mathematics. The man skilled in botany will instruct groups of children in his garden, and the chemist and mineralogist in their laboratories. Instead of grade schools we will have child universities; instead of college degrees there will be citizenship examinations, with rewards of positions of trust in Roadtown management. Instead of college young folks and old foggy old folks there will be an industrial university and universal athletics and sports. The Roadtown school system will be the most versatile imaginable. It will develop the greatest geniuses the world has ever known and save the most money. Pounding literature into the head of a natural born mechanic is both economic and mental waste. The universal query in Roadtown will not be what does he know, but what can he do.

Physical education will be fully as much a matter of public concern in Roadtown as mental education. It ought to be, for disease is contagious, ignorance is not. The Roadtown child will play in the open country like farm boys. He will be brown and sturdy and fall out of trees and go swimming in the creek, but he will not be a wild animal, or a pet to be taken out and aired by the nurse—distinguishable from the poodle only by the absence of the chain.

Lowest Death Rate in History.

The Roadtown death rate will be the lowest in the history of the world. Roadtown will give the freedom to choose from the work and play of city and country, the exercise and rest, which is necessary to the development of a good physique. The Roadtowner will eat pure food, drink pure water, breathe pure air. His bedding and clothes will be aired and when necessary fumigated. His laundry will be disinfected. His house will be made germ proof. The result will be that consumption and typhoid and pneumonia will disappear with the first generation. A few diseases which are transmitted by

contact and the occasional cripples that are born so will persist, but sickness and premature death in Roadtown will be so rare as to cause wonder. Dissipation and the use of patent medicines and narcotic drugs cannot be prevented, but with co-operative industrial organization and no one profiting by the trade, these and other health-destroying fakes will have far less chance to grow or even survive.

The public utilities of Roadtown will include hospitals and nurseries. Public sanitary officers will supervise and consult with residents. Private physicians will be available if there be any demand for them, and when a doctor is wanted he will be able to come quickly. For the liniment and bandage for a cut thumb, a speedier service than the monorail will be available, for the telephone and the mechanical carrier will be brought into play. No one in Roadtown can live more than two or three minutes from the drug store.

With all the coöperative utilities and mechanical perfections that Roadtown offers there is a very natural tendency to associate the essentials of home life with certain forms and locations of houses that our experience connects with the best home life we have known rather than to get down to the real causes and principles involved.

Much of our present sense of house architecture is indeed destined to be quite lost, for the Roadtowner enters his home from above or below, and the pleasurable emotions aroused by the view of one's cottage as he comes up the walk must be attached to other sensations. But home is a place for companionship as distinct from the swirl of business and the jostle of the crowds; nor is all companionship necessarily human. A lawn to keep and some chickens and garden to care for are far closer to the essence of home than the gable on one's cottage.

In the first place the Roadtown will be freer from noise than either city or village. There will be no lumbering vehicles and no tramp of either horse or man upon unshielded pavement. All stairs, roof promenade, hallway and monorail platform will be matted; while the noiselessness of the transportation service is one of the fundamental conceptions of Roadtown. There is no clanking furnace in the Roadtown dwelling. There is no common dumb-waiter through which one receives unwelcome knowledge of his neighbor's business. That the sound will not enter from the roof above or the open windows of one's neighbor's was explained in a previous chapter. To be spied upon by one's neighbors is even more objectionable

than to be overheard. In this respect Roadtown is superior to any type of dwelling yet devised, for in all other forms of residence the windows of the house look out upon the street. The Roadtown passersby are above and below and no one may look into the windows unless he is in a private garden. This unique arrangement gives the Roadtown home a sense of privacy and a freedom in the use of light and air now known only upon isolated farms.

The actual nearness of strangers to the Roadtown homes is of no concern, since one has no knowledge of their presence. That we meet them upon the roof promenade or at the monorail station is certainly not an objection.

The Roadtown inhabitants rent of the community, not of a private individual. Such a lease will be permanent as long as the lessee pays the rent and does not offend the rules of the commonwealth. Sales for taxes and arrest for the breaking of the civil law are present limitations to individual liberty, from which the principles of Roadtown departs not one iota, but simply extends it in keeping with the greater number of common projects in which the community is interested.

A Home in the Truest Sense.

The only further sense that attaches to the idea of home is as a protection from the poverty of old age. A plan whereby the Roadtown corporation will give permanent rent to a person who has paid a sufficient sum into the corporation treasury may be developed co-operatively by the tenants. But a place to live in is only half insurance against poverty of old age, and we can hardly doubt that a community trained in coöperation, as the Roadtown community will be trained, will not only ultimately insure its aged inhabitants' rent but a sufficient sum to keep them in decent comfort. The first generation will never quite forget the egoistic pleasure that is derived from our present forms of deeds for houses and lands, but the sentiment of home ownership as we now know it will die with the generation.

The individual pleasure of house construction will be lost in Roadtown, just as we have already lost the pleasure of vehicle construction. The man who argues that people will not live in Roadtown because they cannot build and own their own homes is a lineal descendant of the man who said they would not ride on railroads for similar reasons. The Roadtown inhabitant will simply transfer his sentiments and put his individuality into other arts.

The builder of a modern private railroad car furnishes trucks and couplings which will enable him to be carried by engines and over rails used in common.

Carriages, railroads, automobiles, in their time, were at first opposed by the artists of the day.

The Roadtown now looks like a Chinese wall—when it is realized it will look like a Roadtown, and Roadtown will mean comfort, contentment and prosperity, and new sentiment and new art will replace the old.

CHAPTER XII

WHO WILL BUILD THE ROADTOWNS

MY many friends have advised me to sell the Roadtown patents or form a company and sell stock. But these people have failed to realize the comprehensiveness of the Roadtown project. Indeed, should I have promoted the Roadtown as a monopoly for private gain I would have unquestionably been the meanest man on earth, for in me and my backers would have been combined all the despotism of the landlord, the railroad magnate, the factory slave driver, the wasteful middle-man, the extortionate retailer and half of the commodity trusts. The private owners of the Roadtown would be absolute master of the inhabitants in every phase of life.

I know no better way to explain to my well-meaning friends who wear dollars instead of lenses in their spectacle frames why I do not care to make a private monopoly of Roadtown, than to say that I was raised in a country town and know the sad limitations of human aspirations due to the loneliness and narrowed horizon of isolated existence, and that I have also lived in the congested districts of New York and of other large cities and know the pain and misery of the life of the city, and that for me to think of promoting Roadtown as a private graft would be exactly comparable to the idea of the discoverer of diphtheria antitoxin keeping the secret for selfish gains.

The Roadtowns will be built by the people who believe in its principles and who have money to invest at 5 per cent, or the market price of a security better than municipal bonds. The Roadtown corporations will each be chartered with a nominal capital stock which will bear no dividends. I will at first hold this stock in trust. This stock will be the voting stock of the corporation, hence, I or trustees I might name will have control of the policy of the company within the limitations of the charter. I wish this stock to be non-dividend paying so the Roadtown can never be made to pay profits to me or anyone else and to pay interest on bonds only to those who are cash investors. My object in holding or trusteeing this stock is to keep

the control of the Roadtown out of the hands of those who may use such control as a means to the numerous forms of graft commonly present in corporations. I wish to stand between the bond holders and the residents of Roadtown and the grafters, and this privilege is the reward I ask for the invention of Roadtown—I want no promoters or monopoly profits, no inventors' stock, and no fancy salary, but I do want the opportunity to see that no one else gets any such advantage over the Roadtowners.

My reason for wishing to control the voting stock of Roadtown is that I do not believe a democratic organization can be created at once in its entirety but that it will have to evolve naturally. If an oligarchic form of control was established now it would doubtless be perpetuated for generations and become corrupt as are present corporations and governments. I believe that during my life time, I, with the aid of good advisers, can evolve a purely democratic form of control and thus permanently prevent it from falling into corrupt hands. I confidently expect the coöperation of men of the highest national reputation in matters of trusteeships.

Home Rule for Roadtowners.

The Roadtown management will have to grow and develop starting perhaps with one-half mile section and adopt such rules as are necessary to the protection and comfort of the tenants. They will be consulted about whatever concerns them directly and thus gradually evolve into a plan of self-government. When I say self-government I mean as regards the things that under our present system they haven't a word to say. They go to the polls occasionally and vote for somebody but can seldom trace any benefit from the vote. In Roadtown direct legislation, initiative, referendum and recall will enable a man to really have a say.

The control of the local affairs in Roadtown will be wholly a matter of local option and the suffrage will be exercised by both sexes.

There will be no definitely set districts as townships or municipal wards, but each question to be voted upon will be submitted to the parties concerned, for illustration: the steward will be elected or recalled by the people whose food the preparation of which he superintends. They will also determine his salary. If they vote him a high salary and he hires an expensive set of helpers and sets a luxurious table the people who elected

him can eject him if they do not approve of his extravagance, but if they desire to live wastefully they can do so and the people of more moderate tastes can move into a section which is known to be moderate. By such opportunity for local option, people will be given the chance of finding sections to suit their tastes and purses.

Roadtown will be a great equalizer of present life by the removal of special privileges of the rich and those who are “in” to reap where they have not sown, but there will be no tendency to dictate to the people how they should spend the money they have equitably earned. You now have to ask the gas trust, the ice trust, the milk and meat trust, the middlemen’s trust and many others even if it is permissible for you to marry and live a normal life.

The original price of Roadtown rents will be made to vary with the desirability of the location. Favored localities will be settled by people with the money to pay for it, and these people will naturally vote for high class service and this in turn will be added to the original price of rent. In this manner certain sections of Roadtown may become more expensive and so the various grades of society will find their wants readily supplied.

Roadtown will possess a leveling influence, it will hasten the equality and brotherhood of man and the Kingdom of God upon the Earth, but it will not reduce man to a single level at one operation, and if these natural laws of human nature should be outraged by an enforced leveling programme, the full Roadtown development would be seriously retarded for a generation.

Detached Villas Practical but Undesirable.

In my earlier work of planning on Roadtown I thought it would be necessary to cater to the wishes of the well-to-do by discontinuing the house line in some sections and breaking it up into detached villas. By carrying the monorails and all pipes and wires in a trench from villa to villa the full benefit of the co-operative functions could be attained, but of course with the additional expense of the extra land, extra length of the trench and its contents, the extra wall and the loss of the roof promenades. I know of nothing that will give a better conception of the wonders of Roadtown than to consider for a moment this villa construction. By the continuation of the Roadtown trench between villas it would be possible to give to a modest ten

or twenty thousand dollar villa facilities that would cost half a million if installed in a single country or suburban home.

But when we had such a villa completed what advantage would we have over the continuous house? A few added windows on two sides of the house that would look out into the other fellow's windows across the lawn and instead of passersby on a grand promenade above our heads entirely removed from our sight, or we from theirs, we would have a sidewalk by the door where our neighbors who became curious as to our domestic affairs could stroll and stare into our windows and doors. In practice more light and air could enter the two freely open sides of the Roadtown house than through the carefully shuttered windows on four sides of a "private" villa. I am satisfied that very few if any sections of Roadtown will be built in villas because they will offer no advantages that I am aware of to offset the disadvantages. People will accept the uniformity of the exterior of the roofs and walls as they now accept the uniformity of the street. Their personal tastes will be put on interior decorations or in beautiful gardens that may be seen from the roof promenade and enjoyed by all.

Before the bonds are offered for the development of any section of Roadtown the matter of municipal franchise, and options from suburban land owners and farmers for the right of way and for garden sites will progress as much as is practicable and a statement will be issued showing the appraisal value of this land, the status of the franchise matter, together with architects' drawings and engineers' plans, and specifications setting forth the estimated cost of a certain finished structure with equipments in a certain locality. This will give the prospective bond buyer an exact knowledge of the property upon which he may secure the mortgage in exchange for his money which will be held by trustees until the required amount is raised and then disbursed by them according to the specifications. That this will be an excellent security will be assured by the fact that the options will be secured at a very low rate because of the competition raised between rival land owners all of whom desire transportation and the other Roadtown facilities.

This principle has been made use of thousands of times in railroad and trolley promotion and has poured millions of dollars worth of watered stock into the hands of crafty promoters. As there is no promoter's graft in Roadtown the bidding of land owners for this line of city through their neighborhood or property will turn to the benefit of the bond holder in

enhancing the solidity of his security and to the land owner in bringing a strip of city to his farm.

Builders of Roadtown Take Minimum Risk.

The wonderful economies of the Roadtown construction, such as cheap building material, principally rock and sand from the farm, steam shovel excavation instead of hand shovel, work train instead of cart hauling and poured cement construction instead of hand labor, the economies of open piping and wiring, and the valuable patents that are being donated because of the humanitarian bases of promotion, will give a better building for the money than can possibly be made under present conditions anywhere and make the first mortgage on Roadtown, including as it does transportation, telephone, water, gas, electric, sewage and other franchises, real estate mortgage and a mortgage on a permanent fireproof house, will make it the best possible form of security known, and no inflated land values. Don't forget that feature. Such a bond will be virtually a municipal bond as the people living in Roadtown can be taxed in the form of rent to meet the interest. No one who has fully grasped the principle of Roadtown will doubt for a minute that it can be built, for it is not a complicated mechanism which must fail if one part proves faulty, but simply the grouping together of inventions already in use. And even if some of these should prove to be unfeasible they would hardly be missed in the total.

The whole question of the value of the Roadtown bonds depends upon the question as to whether or not people will live in the Roadtown after it has been built. I have spent a hundred pages telling of the comforts, conveniences, social and industrial advantages of Roadtown life. Heretofore I might have fallen into minor errors, but no sane and fair mind can reason away the fact that Roadtown life will be wonderfully attractive to the vast majority of mankind. As proof of this, over a hundred high class families have spoken for apartments in the first section, if it happens to be built near New York. But suppose we admit for the sake of argument that the Roadtown house was no better and no worse to live in than a typical suburban house of to-day. Clearly then the worth of the Roadtown bonds

will depend wholly upon the price of Roadtown rent which in turn will depend upon the original cost and the cost of operation.

The Cost of the First Mile of Roadtown.

With a view of answering this question I submit the following letters and figures from Frank L. Sutton, a consulting engineer of 80 Broadway, New York City. These figures are based upon the cost of the first mile of Roadtown. These figures show that it will not be necessary to build a long section of the Roadtown before it can underbid the rental of the isolated house or city apartment and thus secure population and begin business.

It goes without saying that as the length of the Roadtown increases the cost per mile and the cost per house both in construction and operation will decrease.

FRANK SUTTON,
CONSULTING ENGINEER,

80 Broadway,
New York, November 12, 1909.

Mr. Edgar Chambless,

150 Nassau Street, New York City.

DEAR SIR: Referring to the report hereto attached giving a general description and the estimated cost of the mechanical and electrical equipments for the Roadtown, as well as the cost of construction of the building and equipment, and further the cost of operation, would say that these results have been carefully computed and there is no doubt but that the Roadtowns can be built and operated for the figures given in the report.

On account of the arrangement of the building and the convenience by which raw material can be transported, the proposition is without doubt the most economical and efficient form of good construction that can be devised.

Very truly yours,

FRANK L. SUTTON .

**REPORT
ON
CONSTRUCTION WORK AND POWER
EQUIPMENT FOR PROPOSED
ROADTOWN
BY**

**FRANK SUTTON, CONSULTING ENGINEER,
80 BROADWAY, NEW YORK CITY.**

The following calculations are based on the construction of two hundred and fifty (250) two-story houses in a continuous row. This also includes a continuous glass enclosed roof promenade 10 ft. wide and 8 ft. high. The estimate gives the complete construction of these buildings, including the tunnel for the proposed monorail road, also a central power plant, including kitchen, laundry and such other equipments as may be necessary for the proper maintenance of such an establishment. It further includes all mains, pipes, wires, so that when the plant is completed it would be ready to turn over to the occupant in a completely finished condition.

Each house will be equipped with hot water heat furnished from a central station; electric lights, electric power, telephone connected with central station, vacuum sweeping system, complete plumbing and water supply.

The calculations which are given herewith are fairly close and without doubt under proper management and accessible facilities for getting material the work can be done for the estimate given.

250 houses, 21' wide × 20' deep, with seven rooms well furnished as per illustration @ \$1,800 each	\$450,000
Five coöperative centers, tower-like in effect	50,000
Wiring houses based on \$ 50 per house	12,500
Heating, " " " \$150 " "	37,500
Plumbing, " " " \$125 " "	21,250
Laundry machinery	8,000
Cooking apparatus	12,000
Boiler plant and heating apparatus	40,000

Refrigerating plant	10,000
Electric plant and switchboard, telephone	40,000
Wiring, feeder mains, etc.	12,000
Brick Chimney	4,000
Sewerage system	20,000
Water supply and mains for irrigation and domestic use	40,000
Gas and vacuum producers and holders	10,000
One mile of house—equipped	<u>\$777,250</u>
Cost per house—equipped	\$3,109

The principal fixed charges for labor, coal, interest on the investment would be as follows:

Chief engineer	\$2,400
Two (2) assistant engineers, \$80 per month, \$960 each	1,920
Four (4) firemen, \$60 per month, \$240 each	2,880
Two (2) extra men, \$50 per month	1,200
Chef, \$75 per month	900
Three (3) cooks, \$40 per month	1,440
Four (4) helpers, \$20 per month	720
One (1) laundryman, \$100 per month	1,200
Ten (10) women, \$20 per month	<u>2,400</u>
Total labor cost	\$15,060
Coal	4,000
Oil and waste	500
6% interest on \$581,250 ^[B]	\$34,375
7% " " 196,000 ^[B]	<u>14,550</u>
Total expense for one year's operation, interest and depreciation	<u>\$68,385</u>

[B] The lower rate of interest is charged upon the house and fixtures, the higher rate upon the plants and machinery.

Or each tenant's rent for year to be \$22.76 per month or \$3.25 per room, exclusive of charge for food but inclusive of furniture, power, cooking, heat, light, water, vacuum sweeping, laundry and the delivery of all food, parcels, produce, etc.

The population could without doubt be increased by 500 to 1,000 houses more without any material increase in the principal items for labor, such as engineers, firemen and heads of departments. The only extra increase would be for help in these departments which would be governed by the amount of work required.

TRANSPORTATION CALCULATIONS.

Using Autos

Four (4) electric autos for passengers and food		\$12,000
10% interest, depreciation and repairs	\$1,200	
Six (6) men @ \$75 per month	<u>5,400</u>	
	\$6,600	

For 250 families \$1.70 per month.

Mr. Sutton has not included the Boyes Monorail in his report because he was asked to make an estimate for a single mile of Roadtown. For this length the auto service is the more economical. Mr. Sutton, however, finds no fault with the Monorail, as is seen from the following letter:

*Mr. Edgar Chambliss,
New York City.*

DEAR SIR: In reference to the adoption of the Boyes Monorail system for Roadtown would say that I have carefully examined the drawings and general outline of the scheme designed by Mr. Boyes and believe it to be well adapted as a means of rapid and noiseless transportation, and further believe that the operating expenses of this system and the cost of construction will be extremely reasonable. The

design of the system from a mechanical and electrical standpoint is entirely practical.

Very truly yours,
FRANK L. SUTTON.

The total cost for building and operating the Boyes monorail system between New York and Philadelphia or for ninety miles is estimated by Mr. Boyes as follows:

**ESTIMATED COST OF BUILDING AND OPERATING
ROADTOWN TRANSPORTATION.**

As submitted by Wm. H. Boyes using the Boyes Monorail system.

Line from New York to Philadelphia—90 miles. Cost of the double express and single local track, not including excavation, cement work, nor power plants which are figured in general cost of Roadtown, 270 miles at \$15,000 per mile	\$4,050,000
24 express trains at \$28,000	672,000
18 local trains at \$5,000	90,000
Total cost of equipment	\$4,812,000
Interest and upkeep at 7½%	\$360,900
126 motor men at \$1,000	126,000
75 guards, ticket men, etc.	60,000
Total	\$546,900
Monthly cost per family \$2.	

Economy Increases with Length.

The Roadtown becomes more efficient as it grows in length, but the argument that it cannot be started because it will be too tremendous an investment to build a house a hundred miles long is wholly without meaning, for a Roadtown of a hundred apartments would show an advantage over a box style apartment house of the same room capacity and

this efficiency would increase with every added apartment. The first Roadtown bonds will be floated for a mile or half mile unit and will require funds well within the cost of one apartment house. To this beginning house units will be added as fast as needed and more utilities put in as the increasing length warrants it.

Suburban land owners will donate rights of way and garden strips, farmers will donate larger gardens, and ranchmen immense farms. Each will be governed somewhat by the bidding on proposed competing routes, but it is safe to predict that they will all recognize the enormous increase in land values that a strip of city will bring with it and bid accordingly. It is interesting to speculate on the size of their bids for such a wonderful advantage in view of their very liberal gifts to steam and trolley roads which have given them so little in comparison.

The location of the first Roadtown will be determined by the people who give the new form of civilization the warmest welcome. If you have any inducements or practical suggestions to offer, write, I'll be glad to welcome and consider them. It may be in Long Island or in California or in Japan, but the locations of the subsequent Roadtowns will be more easily predicted: they will be wherever there is enough population to make coöperative house construction worth while and sufficient wealth and enterprise to execute such an undertaking.

The logical location for early lines of Roadtown will be at the end of present rapid transit or commuting facilities of our cities or will tap these lines far enough out to avoid high land values. Thus there will be ample vacant ground to start a Roadtown at the uptown end of the New York Subway that could build right through to Boston. Real estate within or near the city will, of course, be higher in price, but as such Roadtown dwellings will be able to compete in every sense with the present prevailing forms of two story houses seen in such districts, and have in addition all the Roadtown advantages including indoor rapid, noiseless and dustless transportation, they could afford to pay for the extra value of such land and still be the object of envy by the outside residents. As soon as it has passed beyond the present suburban or speculative belt, the Roadtown will at once take on the life of the city in the country as pictured in this book, yet all the inhabitants will have quick and cheap transportation services into the old cities.

The demand for such Roadtowns for commuting purposes will be so great at first as to prevent the earlier structures from coming into their full use as homes for a population that shall support itself by work within the Roadtown proper. How quickly this demand will be filled is a matter of speculation. The economic incentive will readjust wisely. It never fails. At present, with all the suburban development, the heart of the city is becoming more and more densely populated. We have not been able to get people out of the city as rapidly as the population increases. The Roadtown will materially aid in this fight to get the people out of the city to live.

A Real Remedy for Congestion.

But with the development of the Roadtown a new factor enters this fight against congestion. The suburbanite must depend upon the city for his livelihood, the Roadtowner need not. The result will be that the Roadtown as soon as built will begin to take people away from the city to work as well as away to sleep, and this means a real relief of city congestion, not simply the frantic piling up of humanity twice each day at the gates of the city.

You might ask, what will be the ultimate place of the Roadtown in the civilization of the world? The answer is as impossible as would have been an answer to the ultimate place of the railroad in the civilization of the world had that question been proposed seventy years ago. The railroad is a great civilizer. It carries with it all the material aids to civilization that can be hauled in a freight car. The Roadtown carries into the home what the railroad takes only to the freight and express office, and it carries in addition the civilization of pipes and wires which the railroad cannot transport. It would have been a wonderful vision for a man of the first quarter of the last century to have attempted to picture the ultimate effect of the railroad—but his vision would have fallen short of the reality. Try for a moment now to take the railroad out of civilization and substitute the methods of 1825. I believe the Roadtown will be to the twentieth century what the railroad was to the nineteenth and that my present efforts to predict its future would fall just as far short of the reality as would Stevenson's dream of the railroad civilization of to-day.

CHAPTER XIII

IN ROADTOWN THERE WILL BE NO TRUSTS

THE only effective way to fight the trusts is to cease to patronize them and the only way to cease to patronize them is to move into an environment which is more economically efficient.

Every labor saving invention in the history of man has thrown someone out of work. The grain binders were broken and burned by the old fashioned harvest hands. The hand type-setters opposed the introduction of the linotype. But the economic invention came in spite of this opposition. The Roadtown is a new arrangement of civilization, a new plan for all commerce and all city building; it will do for the entire programme of transportation what the linotype did for the type setting industry. The entire industrial life of the world will desert the present economic system just as the farmers deserted the old scythes and flails. As a result a large proportion of the people who now work with the crude systems will be thrown out of employment. Who are these people? They are teamsters and expressmen, and clerks, messengers, and bookkeepers, and others too numerous to mention, but these people are merely the servants of private corporations. And the corporations own the warehouses, wholesale and retail stores, and the little shops, and street cars, and cabs, and conduits, and the gas and electricity, and hundreds of other things. These, corporation or trust owners, and their political henchmen who live on the fat of the land and who by employing a lot of servants distribute our goods and intelligence to us by a crude, wasteful, dishonest, and disorganized system, will also eventually lose their jobs. The men who drive the wagons will learn to raise vegetables, and the girls behind the hat counters will learn to make hats. But their bosses with appetites whetted to luxury will be out of a job "for fair" for with the exception of the mines and foreign commerce, the Roadtown will leave them no chance to graft off the producer and consumer by the aid of a privately owned and barbarously inefficient mechanism of distribution and house construction.

Verily, there will be weeping and wailing, and soft hands blistered, and fair names of the privileged families without prestige in the world, for the trusts will have lost their jobs, and there will be but one trust, and that will be owned by the people.

Shall we Miss Them?

The Roadtown is remarkable for the new things that it will add to civilization, but it is even more remarkable for the things that will be conspicuous for their absence. In the Roadtown there will be no streets, no street cars and no “subway air”; no kitchens, no coal bins, no back yards or back alleys full of crime and tin cans; no brooms, no feather dusters, no wash day; no clothes line, no beating the carpet or shaking the rug out the window; there will be no clothes brushes, no pressing clothes by hand, no lugging the beds out to air them; the Roadtown home will have no dish washing, no cooks, no maids, no janitors, no furnace, no ashes, no dust, no noise, no kindling to split nor buy for five cents a bundle; there will be no moving vans, no coal wagons, no ice wagons, no garbage carts, no ash carts, no milk wagons, and no delivery wagons; no horses except for pleasure drives and no need for a society for the prevention of cruelty to animals; in Roadtown there will be no fire engines, no cabs nor taxi-cabs, no mixing of pedestrians and vehicles, no street car blockades, no grade crossings and no “death avenues”; there will be no bargain rushes, no small shops, no middleman’s profits, no bill boards, no advertising of useless and harmful articles, no waste of money for little bottles and cans and bags, no adulterated food, no wilted vegetables, no unsanitary “loose” milk, no systems of cesspools and wells to spread typhoid and other disease germs; for the Roadtown farmer there will be no hitching the horse to go to church nor driving to town to get the mail, no kerosene lamps, no slipshod ungraded country school, no lightning rod peddlers and no book agents; in Roadtown there will be no need for umbrellas, rubbers nor overcoats in the daily routine of business—such protection from the weather being only required by the keepers of live stock and upon occasional visits to the old style city; there will be no snow to shovel, no slipping of horses or humans on icy streets, no street cleaners, no water wagons, no swill tubs, no rain barrels, no manure carts, no dumb-waiters to pull up, no popping and sizzling steam radiators (hot water heating instead); no beds to make, no

expensive strings of funeral carriages, no fire escapes, no waiting in rain or snow to catch a car, no canned goods, no delicatessen diet; in the Roadtown there will be no unemployed problem and no men out of a job except those who are too lazy to work, and yet there will be many changes in occupation, for the Roadtown will have no news boys, no messenger boys, no mail carriers, no traffic policemen, no teamsters, no cabbies, no street car conductors, no expressmen, no delivery boys, no peddlers, no push cart men, no waiters to tip, no insurance agents; no organ grinders, no rag pickers nor old clothes men, no street fakirs nor sandwich men; no beggars, no liveried flunkies; no sweat shops, no child labor, no wage slavery, no rent on fictitious land values, and no trusts to gobble up the fruits of labor.

The history of civilization shows that mechanics control economics, that economics control morality, and that the morality of the time is expressed through the law; and conversely law does not control morality nor morality economics nor economics mechanics. Mechanics is the foundation of all that is good and bad in civilization, law the paint on the finished structure. The painters who are constantly retouching the exterior get credit for a good deal of change but their work is of little real moment compared with the changing of the fundamental structure.

The Roadtown Religion.

A tremendous step toward the perfection of civilization will be made when the world recognizes the two following principles:

- (1) That cities should be built in long continuous lines.
- (2) That housing, as a *framework*, and scientific transportation, as a *compact mechanism* to fit therein, should be developed as a single enterprise.

The Roadtown will tend to perfect transportation as applied to people, commodities and intelligence. Highly perfected transportation means opportunity to get together or to get apart. It means socialism for the socialist, together with all the advantages of individualism, and individualism for the individualist, together with all the advantages of coöperation.

The mission of the Roadtown is to assist in the development of the physical, mental and moral qualities of mankind through the gradual elimination of all physical, mental and moral waste, thus creating an

environment where selfishness and inequality of opportunity will gradually disappear and where man will finally enjoy all the fruits of his labor.

The above expresses the principles of the Roadtown religion—a faith which holds that the Kingdom of God can be realized on this earth and points a practical way by which such realization may be attained.

If you accept these principles and can add them to the faith of your present religion you are indeed a Roadtowner.

The Roadtown is as humanitarian and revolutionary in its principles as is Single Tax or Socialism and like these is destined to become a great social movement enlisting the minds and hearts of those who have developed the social conscience—who believe in it and are willing to work for a civilization wherein the equitable distribution of wealth may be realized. But these other movements depend for their results largely upon the conversion of the majority of the population to their creeds. Roadtown will be a great social “movement” but it will be more than a movement—it will be a realization and that speedily. In fact the object of the author in painfully preparing this little volume (for I am a round peg in a square hole at book writing) is to lay the Roadtown plan before the public to a degree that will stimulate the active interest of enough people to accomplish through their coöperation the financing, and building the first section of Roadtown. The first section built, no human power can stop the Roadtown revolution.

So if you find in the spirit of Roadtown a response to the feeling within your own soul write to the author that you may be counted upon as a Roadtowner to believe and to perform.

If you do not understand the mechanics of Roadtown, write. There are engineers who do and who can explain this to you. If you are an architect or an engineer, an inventor or an agriculturist with a criticism or practical idea that will make Roadtown better, write. If you live in a locality suitable for the construction of a Roadtown line, write. If you know of any one else who can help the cause write to them to write.

Whether you be preacher, carpenter or publicist; bookkeeper, broker or blacksmith, if you wish to play a part in founding the new civilization, talk, preach, speak, write or publish the Roadtown gospel. Send the book to one friend and advise the rest to buy it. Write an article on the subject and get your editor friend to publish it.

If you fear that the crookedness of finance that has blackened many a fair gift to humanity may smirch this latest boon—make it your business to investigate fully; consult with men of wide experience and unquestionable honor who are well posted on this particular subject who may help you to establish in your mind the true nature and phenomenal significance of this movement. And above all if you are but a man among men toiling at your allotted task and taking the stinted portion which the “system” allows you, write, that your name may be filed on the waiting list as one of those to whom the occupancy of a Roadtown house may be offered as soon as the cement of the first section has hardened and the civilizing currents have been turned into the arteries of “A New Heaven and A New Earth” here on this God plowed and human harrowed planet in this the early years of the Twentieth Century.

THE END

Transcriber's Note:

Variations in spelling, computations in the table on page 154, and word usage in "rent of the community, not of a private" on page 136 have been retained as published in the original.

Changes have been made as follows:

- Page 51
accomplishment of which lies on my desk *changed to*
accomplishment of which lies on my desk
- Page 87
woefully ignorant of the whole *changed to*
woefully ignorant of the whole
- Page 92
dear parks and land held by speculators *changed to*
deer parks and land held by speculators
- Page 120
foregoing sentence consists of eighteen words *changed to*
foregoing sentence consists of fifteen words
- Page 123
better the transportation facilites *changed to*
better the transportation facilities

*** END OF THE PROJECT GUTENBERG EBOOK ROADTOWN ***

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