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to Mr. Cuthas Compliments
(1914)

EFFECTS UPON PUBLIC HEALTH AND NATURAL
PROSPERITY FROM RURAL DEPOPULATION
AND ABNORMAL INCREASE OF CITIES

PETER H. BRYCE, M.A., M.D.

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EFFECTS UPON PUBLIC HEALTH AND NATURAL PROSPERITY FROM RURAL DEPOPULATION AND ABNORMAL INCREASE OF CITIES.

PETER H. BRYCE, M. A., M. D.,
Ottawa, Canada.

Read before the General Sessions, American Public Health Association, Jacksonville, Fla.,
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Not for many years in the history of the American Continent—or indeed of Europe—has the subject of this paper seemed to be more appropriate for discussion than at the present time. Dr. Max Nordau in his work on "Degeneration" written twenty years ago, in comparing conditions existing about 1840 and at the time when he wrote, says, "It is about that date when that generation was born which has witnessed the irruption of new discoveries in every relation of life and thus personally experienced those transformations which are the consequences." Since that time another generation has grown to manhood in the United States and in Canada and urban populations have continued ever to increase as illustrated in the following table:

TABLE SHOWING PER CENT. OF URBAN POPULATION TO TOTAL IN THE
 UNITED STATES AND CANADA.

	United States.	Canada
1860.....	16.5%	17.0%
1870.....	21.0%	18.7%
1880.....	(4,000) 29.5%	21.3%
1890.....	36.1%	32.1%
1900.....	40.5%	37.7%
1910.....	46.3%	45.1%

It is further probable that a notable proportion of the younger members present in this meeting are a town product and hence cannot fully appreciate the meaning of these figures; but such certainly can understand the urban conditions under which the millions of the poorer people live in the cities where each is engaged in his special public work. That even the best work which many of my co-workers in the Town Planning Association and National Housing Association are doing in the matter of improving the dwellings of the work people is beginning to appear to them palliative or curative rather than preventive is now becoming apparent as seen in the wonderfully rapid evolution of the suburban and Garden City Movement. One does not require to repeat statistics to show that the mortality rates of our cities are higher in the crowded areas and that tuberculosis finds

its chief victims in the 80 per cent. of the population commonly spoken of as wage-earners or working people. What I desire especially to emphasize is that which is so hard to measure statistically, viz., the silent but more permanent and far-reaching influences and effects which are the outcome of the intensity of life under modern urban conditions. It would be a matter for wonder if the ordinary city child did possess any particular knowledge of how his food is produced or where it comes from, other than from the corner grocery and brought by the delivery van. The same is true regarding his knowledge of the ordinary facts relating to his constant relations to the world around him; but which are knowledge at first hand to the country child or to the commuter. The earliest and most constant phenomena borne in upon the city child's consciousness are buildings across the street, street cars, elevated tracks, rooms in shadow, noises, as never-ceasing telephones, house bells, cries of newsboys and street hawkers of every sort. Similarly the knowledge set forth in the school-room is mostly presentations of facts at second-hand; the real facts for the school child are those of the street-life, viewed in the case of the child of the rich from the detachment of an automobile. Except for the occasional boat trip to some Coney Island for the ordinary city child or the home at the seaside for the children of the rich, it is apparent that the mind of such has in a very peculiar sense been deprived of opportunities for growth under conditions where the objects, which produce impressions upon the eye and ear and other senses are those natural ones which were the educative basis of a previous generation. It will be remembered that within thirty years this change has extended from 25 per cent. to 50 per cent. of the total population of the United States and Canada or to more than 30,000,000 people. It will further be realized, as we think of the matter, that the nursery toys or town office fixtures, the busy factory or the dark-some workshop of the sweated seamstress, the school primer or the bank ledger and the swift shuttle or the clanking machine are the objects whose reflected outlines create the impressions which enter into the consciousness and make up the intellectual world of most of this 30,000,000 from childhood to youth and create the permanent characteristics of the mind and form the chief subjects of their interest. Their literature from the daily press to the pictorial magazine never fails to keep repeating stories and pictures until certain modes of thought become permanent; and for good or ill the people of a city or even a nation come to reflect certain types of ideas too often but the echo of the teachings—whether shallow or profound—of some one or more clever writers or else come to be the votaries of some amusement cleverly promoted, whether it be the baseball game or the ubiquitous moving picture show. It will have been observed that in all these modes of building up the intellect and making public opinion very little part, indeed, has been taken by the sanitarian or public health

officer, although specialists in special foods and the cure-all advertiser have both been insistently pushing their wares.

It will further have been noted in these illustrations of how the thought and intellect of urban dwellers is largely formed that nothing has been said of the education along economic lines which enters into the process. While there is no city exactly the replica of another in its type of industry, manufacture or trade, yet all have the essentials more or less common of being producers and distributors, varying, however, greatly in proportion. Thus it has been stated that London with its 7,000,000 people has only 638 factories with a total motive horsepower of not more than twice that of the *S. S. Mauretania*, while the 100,000 population of Oldham has spindles enough to turn out yarn for all the weavers of Europe. Perhaps what is even more notable is that of the 45,000,000 people of Britain, 6,000,000 possess half the business capital. It is, indeed, an economic fact that almost seven-eighths of the total urban population everywhere are wage-earners and dependent from day to day upon what is paid to them as producers, after rent, interest and profits have been satisfied. But the reversal of early American economic conditions is not limited to cities alone, since I find that according to the census of 1910 Illinois showed an increase of over 10 per cent. within three decades in rural tenancies or had 41 per cent. of her rural area occupied by tenants. In round numbers, therefore, it may be said that more than 60 per cent. of the total population of all North America is the owner of labor as a commodity to be sold, which if not in demand makes its owner within a few weeks in practice a pauper, since when labor is in excess of demand, especially in cities, its price is fixed at the minimum living-wage standard and, if in demand its owner, through improvidence due to conditions so unusual, too often creates a similar precarious condition.

I have attempted in the foregoing to summarize the processes which have been evident with the growth of cities and which move along with ever-increasing momentum. The phenomena of the routine of daily city life as a part of it are inevitable, necessary and even desirable. The morning paper, the train, the auto, the phone, the dictograph, the hurried lunch, the rush to the train or to the theatre, are all so unlike, for instance, New York at the period when G. W. Curtis's "Prue and I" were building "Castles in Spain" that Rip Van Winkle would indeed rub his eyes if he waked up in the New York of today. The human machine can undoubtedly, if given time, adjust itself to conditions enormously different from what have hitherto been deemed normal; but probably no better evidence of non-adjustment can be given than in the hyper-asthesia, which that marvellous man, Edison, has developed that prevents him from sleeping more than three hours in twenty-four and which at the same time causes him to enunciate the theory that man need no longer be a sleeping animal;

that speeding up is all that is necessary if properly graduated, and that enormous time will thus be saved to devote to labor. It is curious that it is not seen that all this speeding up is not alone an accumulator of rent, interest and profits at the one end, with a comparative minimizing of home life and distributed profits to the industrial wage-earner at the other; but further in the degree that the wage-earner's work becomes specialized it is the means by which he becomes unalterably and inextricably fixed to Ixion's wheel in the vortex of labor and is helpless as a child, when the wheels cease turning from an overstocking of the market or the financial cataclysm—induced by war.

I have for many years observed the phenomena of abnormal urban increase in modern so-called progressive countries and with many others have tried to interpret their meaning and predicate their results. Today as I am writing this I have had an illustration of the results of the simplest stage of the process. I am covering my rose bushes for the winter and ask my neighbor's part-time furnace man to help me. I find he is living in an old dwelling with leaky roof, rent free, and looking for odd jobs. He tells me he has been in Canada six years, comes from Cheshire, where he was brought up on a farm till he was fifteen, when his parents died and he went to Manchester. He married, has now a wife and four children. For two years in Canada he worked on a dairy farm near Ottawa; then his wife wanted city neighbors and so he moved to Ottawa. When the war broke out he was making \$11.00 and paying \$4.25 for rent weekly—manifestly within a week without work becoming a pauper. I further recall the events of forty years in the city where I was a student and long resident and today know of almost no prominent wholesale house then doing business, which is in existence today and but few of the sons of the most prominent scholars, physicians or clergymen who have maintained in any degree the position of their fathers. If, however, we examine the situation broadly it does not seem difficult to discover underlying causes, which would seem to account for the widespread results of what we cannot define more exactly than by the term "Degeneration." Dr. Creighton Brown said recently, "The tendency of civilization has been to transfer the burden of breadwinning for the masses of the people from the muscles to the nerves. . . . It is certain that we are more jumpy than we used to be, have to be more on the alert, and so make sharper demands on our nerves, and are prone to those nervous breakdowns that lead to mental disorder. We have been crowding our people into towns, where bustling and nervous agitation are inevitable; we have been bringing up our babies (where we have any) on anything but mother's milk and by the employment of women in many industries have curtailed that family life in which the nervous child best lives and thrives." The notified lunatics of England increased in fifty years by over 262 per cent. while the population

increased by only 85 per cent. Dr. F. W. Mott, pathologist to the Asylums Board, London, says, "A neuropathic heredity is the most important cause of insanity. . . . There are two very numerous classes of individuals whose conduct is anti-social and who at present are not registered or controlled. They are first the chronic, incurable inebriate, dangerous to himself and to society and responsible for a large proportion of the crimes of violence; secondly, the higher grade imbecile of feeble-will power, slender sagacity and energy and lack of moral sense. Although the feeble-minded may be met with in all kinds of society, they are especially to be found amongst the submerged denizens of the overroomed tenements of our cities." Dr. Feré of Paris associates with this feeble-mindedness the great increase of hysteria at the present day, due directly to what he terms the "fatigue of the present generation," while Dr. Lewellys Barker says "that abnormal expressions of emotion or disorders of the will manifesting themselves in abnormalities of conduct" can be evidences of unsoundness of mind. Dr. Charles Dana of the National Committee for Mental Hygiene has estimated that unsoundness of mind in the United States in 1904, as recognized officially or those in institutions for the insane and feeble-minded, cost \$60,000,000 annually and the loss in industrial activity \$30,000,000 more. These figures, moreover, do not include the criminals and paupers who add so enormously to the public expenditures; but who, as shown by the New York Courts and other charitable institutions, must be included to the extent of at least 50 per cent. under the category of mental defectives.

But one might continue indefinitely, if time permitted, adding yet more sombre shades to the picture already painted in darksome colors. It will have been noticed that in what I have said no reference has been made to what the direct rural losses have been through depopulation. An examination, however, of the Census of 1910 for the older States and Provinces makes it quite evident that the rural losses of the descendants of the old Anglo-Saxon stock even in ten years have been relatively great, and in 40 years have been enormous. Economically speaking the great bulk of them have been transferred from the land-holding class of producers of raw materials to the class of middlemen and of wage-earners; but all in the most exact sense make an addition to the enormous army of dependents upon the energy of organized capital, and play some part in its exploitations whether of *rent*, *interest* or *profits*. How much relatively this organization means may be judged from single figures. In the Province of Ontario, Canada, the Census showed the capital invested in agriculture to be \$1,283,000,000 as compared with a total of \$1,247,500,000 in manufactures and industries for the whole Dominion of Canada. Alongside these figures may be placed those collected by Professor G. L. King, Ph.D., of Philadelphia, wherein he has pointed out that the consumer pays from 65 per

cent to 265 per cent. more than the farmer receives; or New York City consumers pay \$645,000,000 for food which at the railway terminal cost only \$350,000,000; or the people pay some \$200,000,000 for cartage and delivery costs and in retailers' profits. What seems an elementary fact in economics is that it would seem infinitely better, if a very large number of these wage-earners in cities (so absolutely helpless and dependent on the one hand on what capital is prepared to allow them in wages, when rent, interest, and profits have been satisfied and on the other forced to pay, so to speak, at the contractor's store whatever price he chooses to charge for life's necessities) were living in the country where they could produce at least the necessities of life for themselves and become in some measure the possessors of physical, mental and moral independence, while at the same time bettering the conditions of life for the dependent toilers of the city. The social isolation of rural life and its initial hardships have long been set down as the chief causes for the depopulation of the country districts; but there is abundant evidence that with the migration of the more ambitious and energetic to the cities to engage in commercial or professional pursuits, the rural communities have suffered so seriously in mental equipment, scientific advancement and business experience, that organized finance, commanding the railroads and other modes of transport and of distribution to which have often been added the control of coal and other minerals, today dominates absolutely every step from the producer to the consumer.

Remembering the enormous displacement in population where in Canada during the last decade urban population increased 62.5 per cent. and the rural only 17 per cent. with an immigration in ten years equal to one third of the previous population, I have frequently spoken to prominent business men and Boards of Trade regarding the possibility of reversing the process by employing capital now in the hands of individuals or companies in purchasing areas of land and by utilizing business methods make a modern industry of agriculture. I do not remember to have met a single important urban investor or taxpayer, who was prepared to lessen by one individual, the taxpaying consumers of his own city through transferring such bodily to engage in agriculture—an industry, indeed, which he was by no means assured would prove a success. He would, on the other hand, be quite prepared to finance half a dozen *tied* stores in the suburbs, because he was confident that his "man Friday" to save his own dollars would be sure to extract enough from the consumer to at least pay the interest on notes, while the stock would guarantee the principal.

I do not come with any ready-to-hand panacea for a world-wide evil, worse perhaps in undeveloped India or China, where the money-leader in the small villages is even more powerful and paralyzing than our capitalists and financial institutions; but two or three outstanding facts seem to m

so direct in their bearing upon the problem that I deem them at least worthy of reference as illustrations of the actual situation. In 1900 the city of Chicago, that part of Cook County, Illinois, not in farms, contained 190,077 acres, which with a population of 1,775,515 gives 8.1 persons per acre. Of course the hundreds of acres included in railroad stations and sidings should be excluded from the house area; but the remarkable fact exists that during the ten years following, only 19,440 acres were added to the city and yet the population increase was 546,074. This means, if the new population were placed on the new area that the density per acre would be 28 or a jump of 300 per cent. over the previous density in 1900. Of course this distribution did not actually so take place; but what did occur was the enormous increase of tenements and apartments, so that there were 8.12 persons to every house in Chicago, and nearly one third increase per acre over a city having 210,117 acres of area. The picture seems to me one easily understood. No figures are given of Chicago real estate values, but the agricultural lands of the state are reported as having increased 96.5 per cent. in value during the decade, although their productiveness per acre had not increased; while absentee landlordism has notably increased and tenancies have proportionately multiplied everywhere whether in country or city. Year by year sees, whether in the United States or Canada in the older districts, the power of capital ever growing and the number of the proletariat ever increasing. From a most unexpected quarter come words, indicating in the most exact way possible, what a scientific observer, for many years separated by his national duties far from our ordinary northern cities, believes to be the essential cause of poverty and unsanitary conditions. Surgeon-General W. E. Gorgas of the Panama Canal Zone has declared out of his own experience that poverty "is the greatest single cause of sad sanitary conditions." The solution in his opinion lies in the adoption of single tax through its effect in eliminating the poverty due to inequitable division of wealth. Sanitation is most needed by the class of people, who would be most benefited by the single tax." How mysteriously the possession of land, whether a million acres in Mexico or a single suburban lot with inflated values, blinds or distorts the vision of every one as to the essential, one might say eternal, principle of land holding, viz., that of *productive occupancy*, and to the logic of taxing the holder of land on unearned increment if holding it unimproved, while the individual, municipality or state makes it valuable through the output of energy in the shape of work or capital expended, need not be dilated upon. To any student of sociology, who will analyze the social and economic phenomena within even his own personal range of experience it must be evident that while the amenities of life in every day society seem to be ever increasing, yet as a matter of fact the machine of what is called the *competitive system in a capitalistic age* is today so complete, operated so delicately and well by the

most highly trained technicians that the ordinary artisan or workman, but a cog in the wheels, goes on playing his part mechanically, almost unconsciously, hypnotized by the rhythmic hum of the wheels; but awakened suddenly to the real situation through some natural or economic catastrophe, he too often finds himself a helpless supernumerary among the unemployed, absolutely lacking in any independent resources or means of even a simple subsistence. Death-rates may fall through the application of now well-understood sanitary and scientific methods against the contagious diseases, the maternity nurse may soothe the brow of even the most helpless victim of the system in the slum, perhaps made tidy by the inspector; but the human wrong will continue until somehow, somewhere and sometime the daughter of the horse-leech with her cry:—Give, give, give! is forcibly or, if need be rudely, stopped from taking her toll of rent, interest, and profits growing out of the anomalies of our land system and of its congener, viz.:

How real is the necessity for education along ethical lines may be judged from a closing paragraph in the Third Annual Report of the Philadelphia Housing Commission:

“The more conditions improve, the greater the difficulty, but the more imperative the duty to do this work. What is won can only be retained by protective measures. Thus in Philadelphia, with the development of the city as it has been going on, certain definite causes stand out as responsible for communal defects. These causes are continually active and cannot be controlled unless, for example, a zoning system is established, regulating the occupancy of residential areas and also the changes in the uses to which buildings are put, so that a well-established home district cannot be depreciated in value nor transformed as to its desirability by the incoming of an undesirable trade.

“Again, the system of taxation has a direct effect upon the building of homes and home ownership. Some changes need to be introduced that will more equitably distribute the assessment and tax levy. Moreover, it is not at all inconceivable that a preferential system of taxes may be necessary in order to stimulate ownership and retention of homes by the small wage-earning class. It may be advisable also for the municipality to create loans similar to the plan of the continental cities, to enable the wage-earner to borrow at low rates funds to provide himself with a home. Especially is it true that, where conditions exist that were once legal but, owing to a better knowledge of sanitation, with its attendant law, now are illegal, municipal loans should also be made available to enable the home owners to make the improvements with money borrowed from the city, the repayment of which can be scattered over a period of years and collected as are taxes.”

The idea that capital can exist, pursue its way and prosper without the coöperation of that labor, which called it into being, indeed, fondled and

nursed it into adolescence and full grown maturity. Too often has capital been proved to be a veritable Gargantua of insatiable appetite slowly immolating his victims; while my studies have led me to conclude that it will be impossible to prevent international wars from being called into being at the will of the Armament Trust and its parasitic underlings and that ordinary commercial business will not be conducted either morally or with due consideration for the rights of the weak if the principle enunciated in America of "taking all that the traffic can bear" be accepted as an economic necessity. Never, indeed, can the simplest yet most difficult of all commandments, "Do unto others as ye would that others do unto you," become in any degree obeyed nor the ills of society be greatly ameliorated, much less removed, until *land, labor* and *capital* be bound together in a bond of love, greater than any sworn oath to ever love, honor and obey one another: Then and then only, shall be fulfilled, the highest law, the law of Christ!