THE EFFECT OF THE CONSUMPTION OF WEALTH ON THE ECONOMIC WELFARE OF SOCIETY.

It is the purpose of this essay to examine the relation between the wants of man and the obstacles to satisfying them, in order to show that correct ideas about the consumption of wealth are a necessary factor in the solution of any economic problem. By themselves the physical laws do not furnish safe premises from which to draw conclusions about the economic welfare of different nations. Even the laws of rent, population, and diminishing returns, cannot be established without an investigation of the consumption of wealth. It is, however, a prevalent opinion that there are no laws of the consumption of wealth other than the laws of human enjoyment. Although J. S. Mill, in expressing this opinion, does not tell us what these laws of human enjoyment are, yet, being a disciple of Bentham, it is evident that he refers to the laws of utility which Bentham developed. According to this view, each pleasure or pain is considered by itself, and the degree of utility is determined by the intensity of feeling. It is, then, inferred that we satisfy our most intense desires first, and that we can determine the intensity of each desire from the order in which we demand commodities for consumption. This reasoning looks plausible, yet it contains a serious error, since from the whole intensity of a pleasure we must deduct the amount of pain indirectly connected with it. To illustrate my meaning, let us picture the action of an individual at a free dinner, where all the dainties of the season were at his disposal. What articles of food would he choose

first? Evidently those which gave him the greatest pleasure. When his desire for these articles was satisfied, or when the degree of their utility to him was greatly reduced, he would consume other articles for which his appetite was not so strong. The final degree of utility of any article would rapidly decline, and hence a great many different articles would be consumed.

In contrast with the action of this individual at a free dinner, let us picture his actions at an ordinary dinner for which he must pay. He will now consume a very different set of articles from those he consumed at a free dinner. The knowledge that a given article of which he is very fond costs twice or three times as much as some other article for which his desire is much less, will usually cause him to eat the latter article, even though his appetite for it is much weaker. Many of the costly articles of which he partook largely at the free dinner will not come into his ordinary dinner at all, while other articles will seldom appear on his table, and then be eaten very sparingly.

From these illustrations it can be seen that there are two distinct orders in which we choose commodities for consumption. One of these we may term the natural order, as it is the order in which men choose commodities for consumption when influenced solely by those ultimate physiological conditions which make the consumption of some commodities more pleasurable than others. The second we may term the economic order, because this is the order in which men choose commodities for consumption when their natural desire for an article is modified by the amount of labor required to produce it. If the labor required to produce an article were always in proportion to the utility derived from its consumption, these two orders would be identical. It is, however, seldom true that the consumption of the product of a week's work in the production of

wheat will give the same amount of pleasure as does the product of a week's work in the production of corn, rice, tobacco, cloth, or cutlery. Writers on utility make a serious mistake in supposing that men, in choosing commodities for consumption, always follow the natural order. Men, we are told, first supply the necessities of life, which are few and simple; then they desire to vary their food; soon they desire variety in dress and the conveniences of life; and finally there arises a desire for the luxuries of life. This classification of the intensity of our desires doubtless contains a measure of the truth, but it is so indefinite that it cannot be developed in a satisfactory manner. Our need of food is certainly the most urgent of all desires, and will be first satisfied. If there were but one kind of food, it would be a very simple matter to determine the order in which we would satisfy our desires. There is, however, an almost infinite variety to our food-supply. Every tract of land has its peculiarities of soil and climate, which make it especially adapted to particular kinds of food. The consumption of these different kinds of food does not afford us the same amount of pleasure in proportion to the labor required for their production. Although the consumption of wheat may give a more intense pleasure to a man than that of rice, he will consume rice if work in a rice-field is so much more productive than work in a wheat-field that the pleasure derived from the consumption of rice, in proportion to its cost, is greater than the pleasure derived from the consumption of wheat in proportion to its cost. Suppose that eight units of pleasure are derived from a dinner composed of wheat-bread, and that six units of pain are required for its production; while a dinner of rice gave four units of pleasure, and cost but two units of pain. In this case the dinner of rice would be chosen, since the ratio of the pleasure to the pain would be greater than if wheat

were consumed. A man under economic conditions will first choose that article which has the highest ratio of pleasure to pain, and then other articles will be chosen in that order which allows the highest ratios to stand first. For pleasure we can substitute utility, and for pain the cost in labor, and then we can say that men, in choosing articles, are determined by the ratio of their cost to their utility.

It must, however, be kept in mind that the relative cost of different articles, as indicated by their market-price, does not by itself furnish sufficient grounds for correctly estimating the relation of cost to utility. The utility of the various articles desired often changes from causes which do not affect their value. To those who think only of their immediate wants, cheap and shoddy articles have a much greater utility than they have to those having high regard for their future welfare. The choice between substantial articles of apparel or of household furniture, and their cheap imitations, which can only supply present needs, is largely determined by the estimate which the consumer has of his future needs ; and as his regard for the future increases, the utility of substantial articles will also increase, even though there is no change in their market value. The utility of any article of food also largely depends upon the ability of housekeepers to cook it properly. The great consumption of meat and wheat-bread among Americans is largely due to the ignorance of their cooks, who do not usually possess sufficient skill to make ordinary vegetables palatable. The influence of good cooking is readily seen in the change which naturally takes place in the diet of an American when he goes to France or Germany. Those who at home rarely eat any vegetable other than potatoes will in France or Germany freely consume all kinds of vegetables, for the simple reason that the cook-

ing is so superior that a taste is soon acquired for many dishes against which the poor cooking of his own country had given him a prejudice.

We have now arrived at one ultimate law in the theory of the consumption of wealth, but there is another of equal importance. It is usually assumed by economists that in each nation there is some one kind of food so much cheaper than any other as to be the natural food of its inhabitants. Ireland, Egypt, and India are, doubtless, striking examples of nations where a single article of food is so much cheaper than any other as to cause their inhabitants to use a single article of food for their main diet; yet, taking the world as a whole, there are many nations where several different articles of diet have about the same ratio of utility to cost. This is especially true in nations where the land is highly cultivated, since, with a proper rotation of crops, the same quantity of food can be raised more cheaply than if only one crop were produced. Even if the soil of many nations is more productive of some one kind of food, as soon as commerce between these nations arises, the exchange of produce causes many articles of food to have about the same ratio of utility to cost.

We must therefore examine the changes which occur when a nation using but one kind of food begins to use a more varied diet, through any of the above-mentioned causes. Let us, as an example, take a man who is accustomed to potatoes as a sole diet. When he begins his dinner, the eating of the first potato will give him great pleasure, and from each following potato he will derive less pleasure, until at length he can obtain no additional pleasure by continuing to eat. This point is called the point of satiety, and we must now examine the conditions which determine where this point of satiety will be. Will the appetite be satisfied when three potatoes are consumed,

or will four, or even six or eight, potatoes be desired?" It is evident there must be a connection between the point of satiety and the needs of the human system. If a man is accustomed to hard work, the point of satiety will not be reached so soon as if little or no work is performed. Men who eat irregularly, or tribes whose sources of the food-supply are uncertain, must have stronger appetites than do those who eat regularly and live in regions having regular supplies of food. The point of satiety is further conditioned by the nutritive qualities of the food consumed. Some kinds of food have a greater proportion of nutritive matter than others, and of these a smaller quantity will supply all the needs of the body than would be required of the less nutritive kinds of food. If a person accustomed to a meat diet should be compelled to subsist on potatoes, his appetite would give out long before he had eaten enough to supply the wants of his system. On the other hand, if a person accustomed to a potato diet should suddenly change to a meat diet, his appetite would be so great that he would eat much more than his system demanded. Suppose a man whose sole diet has been potatoes to come under conditions where wheat-bread will form a substantial part of his diet. Evidently his appetite will be too strong for his new conditions. If he eat half his usual allowance of potatoes, and then change to bread, he will eat more bread than would be an equivalent for the potatoes he would have eaten if potatoes were his sole diet. A change of food revives the appetite, and a person will eat more than his system requires. On the other hand, his system will require less food if the diet becomes more varied. The different articles of food supplement one another, and all the needs of the system are supplied with much less waste than if a less varied diet were consumed. If, then, the appetite of a person increases as his diet becomes more varied, while with this

more varied diet his system requires less food, a change to a more varied diet will destroy the previous harmony between the needs of the system and the appetite. This harmony can be restored only when the appetite has been so reduced that the point of satiety will be reached as soon as the needs of the system have been satisfied. With every increase in the variety of our food, the intensity of pleasure derived from the food must be reduced; so that, when the system becomes accustomed to the new diet, the point of satiety will be reached sooner than was formerly the case.

The truth of this law is much obscured in actual life by the conditions under which our civilization has arisen. In most countries, during the earlier stages of their development, those articles of food whose consumption gives the greatest pleasure could not be used to any extent on account of their great cost. Articles like potatoes and rice had so low a cost in proportion to their utility, that they were consumed, although the pleasure derived from them was much less than could be obtained from more palatable food. At the present time a more varied diet means the consumption of a greater proportion of these more desirable articles, such as wheat-bread, meat, and liquors. In this way a more varied diet excites the appetite in a double way, and greatly increases the intensity of feeling derived from the consumption of food. Our appetite will in time adjust itself to the new conditions, and the intensity of feeling derived from food will be so reduced that the point of satiety will be reached as soon as the needs of the system are satisfied.

There is no necessary connection between the intensity of feeling which we derive from the consumption of food, and its ability to supply the needs of our system. Water and air are necessary to our systems, and yet we derive but little pleasure from their consumption. It is the struggle for food that is the ultimate cause why our desire for it is

so intense. If our world had been so constructed that there was a surplus of food, while water and air were as rare as our food-supply, breathing and drinking would probably be great sources of enjoyment, and we should labor to increase our supply of air and water just as we now work for food. An abundant supply of any article of food causes us to lose our relish for it. This fact is plainly visible in the effect which the increased consumption of liquor has on the tastes of those who use it. It is universally admitted that the demand for strong drinks is rapidly increasing. Even in France and Germany, where the use of light liquors has been so prevalent, the public taste is much less discriminating than formerly. The change from light to strong drinks shows that the public is losing that delicate sense of discrimination which is the cause of intense pleasure, and that it is seeking, through an increase of quantity and stimulation, to obtain a substitute for what it has lost.

In this connection, the reduction in the cost of sugar deserves especial attention, because the change in its value has been so recent that the great economic effects of the change are just beginning to reveal themselves. In the past, sugar has been so costly that it has always been ranked among the luxuries, and from force of habit it is still so regarded by most persons. Its price is now so reduced that the cost of a pound of sugar is but little more than that of a pound of flour, and there are good reasons to suppose that its price will soon be reduced below that of flour. The effects of this change must in time revolutionize our present diet. Most of our fruits and many of our vegetables become palatable only through a free use of sugar, and it is of as much importance to the utilization of these fruits and vegetables as salt and ice are to the preservation of meat. When present prejudices and habits which limit the use of sugar give way, the increase in the use of our

fruits and vegetables must be as great as that which the use of salt and ice has caused in the case of meat.

The rapid increase in the use of sugar is now worthy of especial attention, because of its connection with the temperance movement. In past times the diet of the ordinary laborer was made palatable only through a free use of liquor. It was the pleasure-giving portion of the meal, the other coarse and usually ill-prepared articles being washed down by its use. As no other highly pleasurable diet was within the laborer's means, the use of liquor could not be greatly reduced without making his diet unendurable. Now, however, all this is changed. The low price of sugar places a satisfying diet within the means of every one, and it is now much easier than formerly to persuade people to forego the use of liquor, when an equally pleasurable diet can be obtained from other sources. The temperance people as a class live on a sugar diet, sugar being that part of their diet from which they derive the greater part of their pleasure. As consumers, they form a distinct class, and have an order of consumption radically different from their liquor-loving neighbors. With every reduction in the price of sugar, they gain an increasing advantage in the struggle for life over the drinking classes, and the day does not seem far distant when the cheapness of their diet will give them an industrial supremacy in the greater part of the field of employment.

The satisfaction of our animal wants through a varied diet reduces the intensity of our desire for food, until the intensity of these desires becomes less than the intensity of our desires of a higher character. A universal demand for objects of refined enjoyment can arise only when a varied diet has been enjoyed long enough to reduce the intensity of our enjoyment for food. The demand for commodities can be radically changed from what it has been in the past

only under conditions which favor a varied diet, and these conditions are those which cause a large number of articles of food to have about the same ratio of cost to utility. There is little or no hope of permanent progress so long as potatoes or rice have a much lower ratio of cost to utility than other articles of food. The pressure of hard times or of population will cause the mass of the people to use these articles only ; and the intensity of their desire for food will remain so great that there will be little or no demand for other articles, except for the bare necessities required for shelter and clothing. On the other hand, if many articles have about the same ratio of cost to utility, the pressure of hard times or of population cannot reduce the variety of food. If potatoes and wheat had about the same ratio of cost to utility, there could be no advantage gained by using potatoes only. Under these conditions, the pressure of hard times might reduce the quantity of food consumed, but it could not exclude the use of either potatoes or wheat, as could be done if one of these articles had a much lower ratio of cost to utility than the other.

The same law holds true of other articles than food. If homespun cloth is much cheaper than factory-made cloth, it will be used, even though its colors are much less attractive, and as a result the tastes of the people will remain undeveloped. As soon, however, as improved machinery and commerce cause the factory-made cloth to displace the unattractive homespun cloth, the conditions are secured under which the taste can develop, since, from the many varieties of color and figure, each person can choose the article which is most becoming, without any difference in cost. Just so, when the division of labor has so developed that ready-made or custom-made articles of apparel become as cheap as home-made articles, the purchaser has a much greater variety to choose from, and can secure a much better-fitting article

than was possible while home-made articles were in use. In these and many other ways the intensity of our desire for articles of taste and refinement is gradually increased, and the ratio of their cost to their utility is reduced until this ratio is no greater than that of the articles of food. Then they become a part of the standard of life which all enjoy, and the pressure of hard times can no more displace them than it can cause a people to use only one kind of food when several kinds have the same ratio of cost to utility.

We now have the principal causes which change the ratio of the utility of desired commodities to their cost. In primitive times, when each tribe was isolated from its neighbors, some one article of food usually had so low a ratio of cost to utility that it became the sole diet of the tribe, while their rude appliances could not afford any variety of dress or ornament. In such a social state the economic order of consumption diverges the farthest from the natural order. Yet it is often asserted that savages and backwoodsmen are natural, while the more civilized people of our great centres of population lead an artificial life. Men, however, are in a natural condition only when the cost of each article has such a ratio to its utility that the consumption of these articles is in the same order that they would be if every thing were free. Judged by this standard, the actions of the backwoodsmen and savages are very artificial, and should never be used as evidence of what is natural to men. It is not any physiological need, or any peculiarity of constitution, that induces men to resort to those sources of enjoyment prevalent in rude societies. Their economic surroundings do not allow any other choice, and they must remain in this state until some improvement in their economic condition allows a wider choice in consumption.

The economists of the past century accepted the doctrine that the primitive man was in the natural state, and that

he became artificial through civilization. Of the many errors springing from this false view, none were greater than the consequent exclusion of consumption as a department of political economy. If the desires of the primitive man are natural, no change in his economic conditio will make any change in the order in which he will consume commodities. With every increase in his productive power, he can supply his less pressing wants; but the order in which he supplies his wants will not change without a change in his physical constitution. If this were true, the laws of consumption would be merely laws of human enjoyment, and would be outside of the field of economics. On the other hand, if the isolated economic condition of the backwoodsman and savage causes them to deviate widely from the natural order of consumption, we cannot accept their actions as models from which to determine the laws of human nature. It is from such models that the law is derived that men have a natural aversion to labor and a desire for the present enjoyment of costly indulgences. Men have a natural aversion only to that labor in which there is a surplus of pain, and costly indulgences are preferred to real utilities only under those economic conditions which make the latter more costly than the former. The primitive man had but few real wants which he could supply without a surplus of pain, and thus his aversion to labor grew out of his economic surroundings. On the other hand, with the higher types of the civilized man, the number of wants which can be supplied at a low ratio of cost to utility are so great that all his exertions can supply but a mere fraction of them. He therefore has as strong a tendency to overwork as his primitive ancestor had to remain inactive. The real laws of human nature do not change with our economic surroundings. If a German comes to America, his nature will not be altered, yet his aversion

for labor and his demand for commodities will be modified by his surroundings. We inherit about the same nature which our fathers had; yet, as our economic conditions have changed, it would be impossible from their conduct to infer what we desire, or how much we dislike to work.

By the changes in consumption which modern progress has made possible, the welfare of society has been improved in two important respects. Through a great reduction in cost, many more articles than formerly have a low ratio of cost to utility, and thus the inducement to labor has been greatly increased. In the second place, the greater variety of our wants allows them to be supplied with a smaller proportional labor. For a people with few wants, all their land must be used to supply these wants, even though most of it is better fitted for other uses; while, with every increase in the variety of our wants, all the qualities of each soil and climate can be better utilized. Were the actions of men controlled only by the laws of human nature and those of the external world, our present economic condition would be greatly improved. We have inherited a world much better fitted for supplying our wants than that possessed by our ancestors; but along with this better economic world have also been inherited laws, habits, and prejudices suited only to the artificial surroundings of our ancestors. Only when our prejudices have been removed, and our laws and habits modified so as to harmonize with our present environment, can we hope to utilize all our resources, and to have all that variety in our consumption which a better conformity to natural laws will permit. We do not need a new world nor a new man; but we do need a new society and a state whose power will be superior to that of any combination of selfish individuals, and whose duties will be commensurate with human wants.

SIMON N. PATTEN.