jects, we are confronted with the spectacle of fourteen times too much attention given for a hundred years to ten times too small a matter. Proceeding now to the multiplication of fourteen by ten, we are brought face to face with the mathematical conclusion that in order to restore a lost equilibrium, the schools might reasonably from now on give one hundred and forty times more study to the subject of urban or city rent than they have been in the habit of doing in the past.

This extravagant conclusion is set forth in the hope that it may prove a magnet which shall draw present attention away from agricultural ground rent which may almost be ignored, and fix it upon the forty-five million ground rent of Boston, which the people pay yearly for the use of its land; upon the one hundred and fifty or two hundred million ground rent of Greater New York; upon the two or three thousand million ground rent of the United States, and upon so much of ground rent as exists in the coal mines of Pennsylvania, and in the billions of franchise values that are springing up all around us like gourds in the night.

Confronted, as we are to-day, by such acute conditions, we ask you to pardon whatever may seem like impatience with a theory which has dealt so laboriously with the cuticle, the margin of production, instead of with the heart of production.

We seek a proper understanding and economic treatment of this vast river of rent, which, like a great Mississippi, drains every field of industry, labor and capital, wages and interest, in the whole country around. Our earnest contention is that to such wise treatment we are to look for the correction of most that it now wrong in the distribution of wealth. Out of this vast current of ground rent, we would provide for all public need.

By way of help to a better every-day understanding, not of any theory, but of this great fundamental fact of ground rent, college professors from Maine to California have royally lent themselves to a voluminous correspondence, and a select number, representatives of leading institutions, have generously consented to participate in a public consideration of the topic.

GROUND RENT: WHAT IS ITS NATURE, OPERATION AND OFFICE? WHAT CAUSES IT? WHAT MAINTAINS IT? HOW MUCH IS THERE OF IT?

It gives us pleasure to present to you these gentlemen, beginning with Professor Charles J. Bullock, of Williams College, who has kindly consented to open the discussion.

PROFESSOR BULLOCK'S ADDRESS.

THE NATURE OF GROUND RENT.

Ground rent, or the income received by the owner of land, is a concept that is sufficiently broad to include all income that is derived from the control of natural agents of production. He who would utilize a water power or draw from beneath the surface of the earth the mineral treasures deposited there in bygone ages, must, no less than the farmer, the manufacturer, or the merchant, enjoy access to some particular tract of land. For this reason, I suppose, the definition formulated as the outcome of the correspondence conducted by the Single Tax League during the past year, declares that land value is "The value of situation, with its natural gifts, and with all the rights and privileges pertaining to the occupancy thereof." With this brief statement of the connotation of the term, I venture to present my views concerning the nature of the income that flows from the ownership of land; and at the outset will expressly warn you that I shall pay no attention to any theories of taxation and social reform that may or may not follow from the conclusions that I shall reach.

In the tangle of conflicting theories that enmesh the student of this problem, two opposing tendencies of thought are clearly discernible. According to one view of the matter, land is a simple agent of production that resembles, at least, in those respects which are of most importance to the economist, all other instruments of production. Land, like tools and machines and buildings, is supposed to contribute its share to the production of wealth; and it is held that the income derived from land differs in no important particular from the income that accrues to the owner of any other instrument of production. In the opposing view of the problem, a vital distinction exists between land and the other agents of production; and it is declared that rent is a form of income that differs very widely from the interest received by the owner of the improvements which man places upon the land. According to the first theory, land is merely one form of productive capital; and there is no vital difference between rent and interest; according to the second, capital is something distinct from land, and interest is something of a different genus from rent. The first view is often held by that economic Philistine known as "the practical man," but is not without its advocates among professional economists; the second has become a classical theory in economic science.

In the time at my disposal it will be impossible to consider many of the questions at issue between the parties to this interesting controversy. I shall, therefore, content myself with presenting what I believe to be a satisfactory method of approaching the problem, and stating the chief considerations that have led me to accept the classical theory of rent.

The income which a land-owner receives in any year may be called the annual value of his property, and he may begin by inquiring what the circumstances are upon which that value depends. The solution of our problem would seem to involve merely a particular application of a general theory of value, upon the essential of which it would seem that an agreement can be secured. Into the metaphysics of the question of value we shall find it unnecessary to enter, and it will suffice for present purposes to appeal to familiar principles that are well established, both by reason and common experience. If the supply of any commodity, such as a Cremona violin is a fixed quantity, then its value will depend simply upon the conditions of demand. If, however, articles can be multiplied by the expenditure of human labor their value will be influenced by the fact that the supply can be increased just as long as the price remains high enough to induce people to furnish additional amounts. If a commodity is controlled by a single body of producers, the supply will be limited at the point that will secure the largest net return upon the investment of labor and capital; but if it is produced under competitive conditions, the output will generally increase until a progressive fall in the market price makes further production unprofitable. In the actual world of business, mistakes constantly occur, and economic friction at various points frequently produces results that are not contemplated by this imperfect statement of the theory; but in the long run, things are subjected to a process of valuation that roughly corresponds to that which has been described.

Now I shall endeavor to explain the nature of ground rent by reference to the conditions that govern the demand for land and the supply of that agent of production. And we may first examine the conditions that determine the demand. The demand for land comes from persons who desire to use it in production, and the annual rental offered for any tract will depend upon the advantages which that particular situation offers for the purposes to which it is to be devoted. If a location on Summer Street enables a merchant to do a very large retail trade, and to realize large aggregate returns from this enterprise, a large demand price will be offered for that location. If a farm of superior fertility enables a producer to raise wheat at a small cost per bushel, the demand price for that farm will be the annual saving in the cost of raising the number of bushels produced. In general, an increase of population, by increasing the need for the things produced from the land, will tend to raise the demand price; while a decline in numbers will have the contrary effect.

Turning now to the conditions governing the supply of land, we find that here we have to deal with an object that is not the product of human labor, and of which the value is not influenced by the cost of production. At this point controversy sometimes arises, and it is asked whether a portion of the land upon which Boston stands is not "made land," and whether a large part of Holland was not reclaimed from the sea. And the further suggestion is made that the discovery of new continents has increased the supply of land in past ages; that the development of regions now practically uninhabited will furnish additional land as fast as there is a demand for it; and, that improvements in transportation are constantly bringing more land into the market. For all practical intents and purposes, it is argued, the supply of land can be increased by the appropriate sort of human effort; so that it may be said that land does not differ from tools and machines and buildings in the respect that has just been mentioned.

In reply, however, it may be safely contended that the additions which man can make to the land surface of the globe, are so small, as to be a negligible quantity when we compare land with the things that human labor places upon it. As Professor Cairnes has reminded us, outside of the mathematical sciences, few definitions and distinctions can be formulated that are not founded upon differences of degree; so that the fact that at the boundary lines some slight exceptions can be discovered, is not necessarily a valid objection to any scheme of classification. Would any one seriously contend that there is any similarity between the annual rate of increase of this country's stock of capital and the annual additions that human labor makes to the land surface of North America?

And what shall be said of the contention that the occupation of uninhabited regions, and the improvement of means of transportation enable us to increase the supply of available land as fast as occasion may demand? I believe that the essential facts which are emphasized in this contention, can be conceded without removing the basis for our distinction between land and capital. When we say that capital is the product of human effort, and that land is not, we we do not mean that the supply of land now available for man's use is an absolutely fixed quantity; or that it is impossible, by developing means of transportation, to bring more land into the market. Obviously, the quantity of land in the market is not fixed; but it is true that when an addition is made to the supply of available land, that addition is in the market to stay as long as there is a demand for it, because it does not need to be renewed by the continuous expenditure of human labor as is the case with a country's supply of capital. The cost of supplying capital exerts an influence upon the interest which capital can command, not merely or chiefly because the capital now in the market represents some sacrifice on the part of the capitalist, but because the existing supply of tools, or machines, or buildings, will not be kept up unless the sacrifices incurred in production are suitably rewarded. In this fact we find sufficient justification for discriminating between land and capital, and for differentiating rent from interest.

Permit me, by way of conclusion, to present a brief summary of the results of the preceding discussion. The annual value of land depends upon the conditions of demand and supply. The demand price varies according to the advantages which land offers for production, and will tend to increase with every increase of population. The supply of land is not produced by man and does not need to be renewed by a constant expenditure of human labor. The quantity of land in the market is not, however, always a fixed quantity; since, if the prospective demand warrants it, regions now unoccupied can, for some time to come, be made available for human uses. But land once brought into the market will command such prices as its natural resources or situation will induce producers to pay. Unlike capital, its value will not be influenced by the cost of keeping up the existing stock. For this reason I contend that rent is widely different from interest, and that the ground of difference is to be found in the peculiar conditions that govern the supply of land.

COMMENTARY BY PROFESSOR G. S. CALLENDER, BOWDOIN COLLEGE.

THE NATURE OF GROUND RENT.

There are two questions involved in the subject we are considering tonight. The first is whether or no an income derived from the ownership of the natural agents of production is the same kind of income as that derived from the ownership of capital. In other words, is ground rent the same thing as interest? The second question is whether an income derived from the ownership of the natural agents of production is an earned or an unearned income? That is to say, does the person who derives an income from such a source perform any service in production, such as is performed, for instance, by those who supply by means of saving the capital of the community? It is this second question which alone gives practical interest and importance to our subject. The first is important only so far as it helps to answer the second. To show that rent and interest are the same is to prove that the income derived from the one is no more unearned than that derived from the other.

To my mind, Professor Bullock has answered the first question satisfactorily. Barring the inevitable exceptions, it seems to me impossible to deny these propositions: first, that the supply of the natural agents is limited, and cannot be increased by man's efforts; second, that the demand for the natural agents increases along with the increase of population. It follows from this that the value of the natural agents of production is determined in a different way from that of capital ,and the income derived from their ownership is a different kind of income from that derived from the possession of capital. Accepting this conclusion, however, does not help us very much in answering the second, and more important question, of whether the landlord's income is an earned or unearned one. It proves that the rent receivers as a class do not perform the same kind of service in production on that is performed by the savers of capital; but it does not prove that they perform no service whatever. To those of us, therefore, who believe with Professor Bullock that land is not capital, and that rent and interest are distinct and different kinds of income, the important thing to find out about ground rent is not so much its origin or the forces which give rise