Francis Amasa Walker, the son of a noted political economist, followed illustriously in his father's footsteps, also achieving eminence as a leading statistician and educator of his time. After taking his baccalaureate degree at Amherst and reading law with a distinguished firm, he enrolled as an enlisted man in the Union Army, rising through the ranks as an adjutant, to retire, after sustaining severe wounds, with the brevet rank of brigadier general at the ripe age of twenty-five. Soon afterward he was appointed to the Bureau of Statistics, where he gained further acclaim by reorganizing it on an efficient and scientific basis. At various points in his career he served as superintendent of the census, commissioner of Indian affairs, and professor of political economy and history at Yale. In 1881 he became president of the Massachusetts Institute of Technology, modernizing and enlarging that institution until his death in 1897. Recipient of numerous honorary degrees both at home and abroad, when the American Economic Association was organized in 1885 he was made its first president virtually by acclamation.

As an economist, Walker published extensively. In his book The Wages Question (1876), he was the first professional economist to oppose John Stuart Mill's wages-fund theory, which maintained that wages were wholly dependent upon the amount of preexisting capital. Three years later, in Progress and Poverty, Henry George cited Walker's attack upon this theory as the most vital that he knew, but criticized it for conceding too much. Although generally conservative, Walker was capable of intellectual courage: he favored international bimetallism despite adverse attitudes in his home state of Massachusetts and in his profession.

The controversy between Walker and George began with a skirmish over figures when George, in an article in Frank Leslie's Illustrated Newspaper entitled "The March of Concentration" (later included as a chapter in his Social Problems), challenged certain statistics about landholding that had just appeared in the Compendium of the Census of 1880, and for which Walker was responsible. This elicited a contemptuous but careless rejoinder in Leslie's by Walker, followed by a devastating counterthrust by George, another effort by Walker at rebuttal, and a coup de grâce by George. Six months later, in the preface of a new census volume, Walker was obliged to admit that his earlier statistics had contained disparity and error.
In 1883 Walker published a book, *Land and Its Rent*, which contains some of the most detailed criticism ever presented of the economic analysis in *Progress and Poverty*, and which was admittedly written for the express purpose of refuting George. It was based upon a series of lectures delivered by Walker at Harvard University.

The argument begins inauspiciously with a misrepresentation of George’s proposal. According to Walker, George contended for “the natural and inalienable right of all individual members of the human race indiscriminately to enter and enjoy at will each and every lot and parcel of land upon the globe, and every building which may have been or may hereafter be erected thereupon.” In point of fact, George asserted that each man’s equal right to land could be achieved if the government would only appropriate the land rent by taxation, and he vigorously opposed government seizure of land titles. He constantly defended private property in buildings and other improvements, even insisting that they should be subject to no taxation whatsoever.

Walker did not really warm up to his argument until later in the book, when he plunged into a lengthy attack upon George’s economic system. “How much is there in the view,” he wrote, “that commercial disturbance and industrial depression are due chiefly to the speculative holding of land? . . . Mr. George makes no point against private property in land unless he can show that it is, of all species of property, peculiarly the subject of speculative impulses.”

Max Hirsch rightly observes that George’s position does not require that he show anything of the sort. For “is it not possible that whereas speculation in [unmonopolized] labour-products might inflict little or no harm on the community, speculation in land might inflict infinite harm, though land were no more subject to speculative impulses than labour-products?” In any case, George had, in fact, stressed at least one peculiarity of land speculation—that it withholds a vital inelastic factor from production, whereas the higher prices induced by speculation in produced commodities attract additional producers, and the increased supply causes prices to adjust themselves back downward. Furthermore, as Hirsch remarks, the problem is not merely one of agricultural land, to which Walker confines it, but of all land. “Which are the main objects of speculation at Stock Exchanges? Railways, tramways, mines, gas and water shares and similar securities based on the ownership of land or special privileges to land, easily come first. Moreover, any inflation, whether it be a paper-money inflation, or any large addition to capital seeking investment, results first and foremost in the speculative rise of urban properties. . . . By far the greater part of land values, therefore, are not merely ‘peculiarly the subject of speculative impulses,’ but are pre-eminently the object of speculative transactions and excesses.”

Today’s economists would stand with Walker in asserting that land speculation is not the main cause of depression; rather, the main cause is a sudden diminution in the money supply, and particularly the credit supply, resulting either from sudden mass pessimism about the short-run future of business, or from mistaken government action (e.g., the constriction of bank credit from 1929 to 1931 by the Federal Reserve Board to such an extent that the money supply fell by two-thirds).
But that land speculation can be a cause of depressions, there should be no doubt, either logically or empirically. Logically, because increasing speculation increasingly withdraws one of the vital factors (land) from the productive process, and imposes an ever-heavier speculative rent burden upon labor and capital, the active factors in production. Empirically, because increasing land speculation has, in fact, preceded every depression in the United States.

Walker then maintained that the amount of land that was, or ever would be, held idle for speculative purposes was negligible: “Because, forsooth, a man is holding a tract of land in the hope of a rise in value years hence, does that constitute any reason why he should refuse to rent it, this year or next, and get from it what he can, were it not more than enough to pay his taxes and a part of the interest of the money borrowed, to ‘carry’ the property?”

This touches a somewhat weak spot in George’s analysis, for throughout his writings George seems to assume that all land held for speculation would be kept absolutely idle. Collier, who is otherwise not impressed by Walker’s treatment of George, thinks that this argument “constitutes a valid and very serious criticism.” But Hirsch successfully combats it by pointing out that it really makes relatively little difference whether land held for speculation is kept wholly idle, on the one hand, or put to some use well below its optimum capacity, on the other: “For if valuable land, fit for cultivation and near to markets, is largely used for this inferior purpose, then the arguments urged by George and which Mr. Walker endeavors to disprove must follow; labour and capital must be driven to the cultivation of poorer and more distant soils.”

Thus, while George may perhaps be mildly faulted for often speaking of “idle” when he might better have spoken of “underused” land, in terms of its effect upon the margin this is a distinction without much of a difference. After giving some telling examples that bear out his contention, Hirsch extends the argument to encompass urban and mineral lands (which Walker ignored), remarking:

Around all cities, much land fit for the intensest culture, is kept idle for speculative purposes. Users will only take it on long leases, owing to the valuable improvements which intense culture demands. Owners refuse to grant such leases, because it might deprive them of the opportunity to sell the land for building purposes. . .

Similarly, large areas of mining land are everywhere held out of use for speculative purposes. To such an extent is this practice carried, that a special term “shepherding” has been invented for it. . .

Fixing his gaze upon the least valuable land, agricultural land, alone, Mr. Walker has overlooked all these cases in which speculation induces the idle holding of much of the most valuable land in the community, enormously increasing rent, reducing wages, and intensifying many of the worst evils of our civilization.

Walker next proceeded to attack another of George’s theses, namely, that “irrespective of the increase of population, the effect of improvements in methods of production and exchange is to increase rent,” this effect being carried so far that “all the advantages gained by the march of progress go to the owners of land, and wages do not increase.” This, he contended, is
George's "main proposition, the proposition to which the others are subsidiary." Hirsch, while conceding it to be "the most debatable point in Progress and Poverty," does not accept Walker's view of its indispensability to George's system. For he holds that even if Walker is successful in showing that rent does not increase through progress in methods of production when population remains stationary, an increase in population is the actual condition accompanying progress in production. He goes on to assert, moreover, that while George may have "somewhat exaggerated the facts of the case," Walker's contention is false even when population is stationary as far as permanent increase in wages is concerned.12

Walker commenced this line of attack on the ground that qualitative improvements in production enhance the demand for labor without enhancing the demand for land, thereby raising wages but not rent. He adduced several examples, of which the following may be taken as characteristic: "Here is the rude furniture of a laborer's cottage, worth perhaps $30. The same amount of wood may be made into furniture worth $200 for the home of the clerk, or into furniture worth $2,000 for the home of the banker. . .The actual material derived from the soil which would go into a picture by a master, worth thousands, makes a smaller draught upon the productive essences of the soil than a chromo of the Prodigal's Return, sold from a cart for $2, frame included."13

However, as Hirsch comments, none of Walker's examples are to the point. They do not even illustrate that a greater production of wealth has taken place:

For obviously, had the same labour been devoted to the production of a greater quantity of . . .goods of inferior quality instead of making a smaller quantity of superior quality, the production of wealth might have been the same or greater. What he has shown, therefore, is that labour may be directed to produce the same amount of wealth from a smaller quantity of raw material, thus reducing the demand for land and for labour in the cultivation of land. That has not been disputed, nor is such a change in the direction of labour an "improvement in the methods of production."14

Walker's discussion of this point is subjected by Collier to even more devastating analysis. He calls attention to the fact that George's argument, and Walker's own summary of it, refer explicitly and exclusively to labor-saving innovations. From the context of George's work it is quite clear that by "improvements in production" he meant innovations that "literally saved, or used less labor, or at least increased the demand for labor less than the demand for other factors. George's proposition when viewed in that context becomes a virtual tautology which is irrefutable."15

If Walker had shown that there are qualitative improvements that enhance productivity without saving labor or increasing the demand for land, he could at least have scored a hit against George's general idea that rent tends to absorb the rewards of material progress, although it would not have demolished the specific argument in support of that idea which he thought he had addressed. "But, as Walker's own argument shows, he did not choose this alternative. Rather, he chose to argue the absurdity that labor-saving innovations are labor-using."16
Walker went as far as to claim that innovations have actually decreased the demand for land. He classified them under three headings, according to whether they improve manufacture, transportation, or cultivation of the soil. With respect to the first category, he asserted that although manufacturing innovations do tend to increase the demand for land, they increase the demand for labor even more. This is simply presented as an ipse dixit, without supporting evidence or proof.

With respect to the second category, he stated that "whatever quickens and cheapens transport, acts directly in the reduction of rents, and cannot act in any other way, since it throws out of cultivation the poorer lands previously in use for the supply of the market, enabling the better soils at a distance to take their place, thus raising the lower limit, or, as it is called, the 'margin' of cultivation, and thus reducing rents." Walker was true to Ricardo's Law of Rent here, for he assumed that rent is the difference between what can be produced on good land over what can be produced on the most inferior land with the same application of labor and capital. He maintained that this rent difference would be reduced by improvements in transportation because outlying lands, previously of little use, would now become more productive.

This stance, however, is highly questionable. After all, do not improvements in transportation greatly increase the value of many urban lands? Are not wharves and land surrounding them made more valuable by improvements in shipping? Do not better highways usually make city land more valuable? Improvements in transportation may in some cases have, as Walker claims, the effect of reducing rent, but certainly not "absolutely and exclusively" as he asserts, and not for the reason that he states; rather, because such improvements might sometimes reduce the difference between what can be produced on good land and on marginal land, respectively, with the same application of labor and capital. Yet since this land-rent difference is nonmeasurable (because no one would ever apply the same labor and capital to both good land and marginal land) Walker cannot prove via the Law of Rent that improved transportation reduces land rent. The contention must be demonstrated empirically.

There yet remains the last category, agricultural innovations, of which Walker recognizes two types: those which yield a constant product with less labor, and those which get more product with a fixed amount of labor. Collier contends that Walker slipped into a "subtle error" (too technical to go into here) in his analysis of the first type, and failed to demonstrate, in his analysis of the second type, an adequate understanding of "the relationship of differences in fertility in the determination of rent." Hirsch admits that Walker "was justified in the statement that some agricultural improvements reduce rent, i.e., those which result in an increased yield without an equivalent increase in labor, and which are applicable to all land," but concludes that "while George, therefore, was to some small extent in error when he alleged that 'irrespective of the increase of population, the effect of improvements in methods of production and exchange is to increase rent,' inasmuch as there is one rare class of improvements which fail to do so in the long run, Mr. Walker's absolute denial of this generally true fact was a far greater error."

To give Walker his due, we must note that he did present statistics to show
that poverty had not increased with progress, that wages had not fallen over the years, and that rent had not increased faster than total production. His factual evidence was strong, and current statistics continue to support his case. (See the *U.S. Statistical Abstract.*) But it may be defensibly submitted that what George describes—namely, rent squeezing wages and interest to the wall—is the natural tendency when production is free of government interference and of all monopoly save that of land. Since his time, monopoly-union wage increases and taxation for such unproductive purposes as defense, crime-fighting, welfare, and the like, have lessened the share rent takes from total production. George himself foresaw that such factors could theoretically reduce rent, and since then they have actually done so. Who could doubt, for instance, that if taxes were reduced (particularly the property tax on buildings) and if union-induced wage increases were abolished, rent would increase even if total production remained static? Who could doubt that if these factors were nullified, the rental difference between what the same application of labor and capital could produce on good land over marginal land would rise without any concurrent rise in wages and interest? If this be so, then George’s analysis is still, with some slight modification, relevant and important.

We observe with some surprise that Walker did not concern himself in *Land and Its Rent* with the merits or demerits of George’s famous tax proposal, but only with George’s economic analysis of poverty and depressions. The question to which Walker addressed himself was: Are these two economic evils to be attributed solely or largely to private landownership and land speculation? In the 1880s most people were interested in learning whether George had really isolated the causes of these grand economic problems; only later did they begin to think of land-value taxation chiefly as a possible solution to more limited economic problems such as inflation, urban congestion, and the need for tax reform.

The arguments set forth in *Land and Its Rent* were reproduced almost verbatim in several other books by Walker, including the later editions of his widely used text *Political Economy*. It was in this work that he characterized George’s practical proposal to tax away land values without compensating the owners as a “precious piece of villainy,” and stated: “I will not insult my readers by discussing a project so steeped in infamy.” Eventually, however, his attitude altered in a way that mirrored the general academic change of view. In 1890, when he presented his address “The Tide of Economic Thought” before the annual meeting of the American Economic Association, Walker was able to treat George in a calmer and more impartial manner. He continued to insist upon compensation to the end, but a shift of emphasis may be detected in his 1890 speech, evidenced by his statement that “conceding compensation to existing owners, the proposition is one which an honest man can entertain.” He personally still had objections to the scheme, but it seemed to him that economists at large “have rather been inclining to the view that somewhat more of the economic rent than is now taken by the State might be brought into the treasury.” Walker, however, doubted that practical politicians could get the votes from small farmers and village lot-owners for such a plan.

His position on the subject was spelled out more completely in the 1893 edition of *First Lessons in Political Economy*, a high school textbook (but not
significantly easier to read, one notes, than were the college texts of the period). Wrote Walker: "There can be no question, I think, that if the community chooses to claim rent, it has a clear and full right to it." Nevertheless, the government must pay compensation, because if it had recognized the individual's legal right to land and its rent, to suddenly deny that right would be sheer robbery. Landowners have a vested interest that society is bound to protect even though, with economic progress, "a larger and still larger share of the product of industry tends to pass into the hands of the owners of land, not because they have done more for society, but because society has a greater need of that which they control" (It should be remarked that this statement represents a sweeping contradiction of the thesis in Land and Its Rent that rent does not absorb the benefits of material advance!

Numerous arguments may be put forth against the claim to compensation. First, government is constantly making adjustments that harm some people but benefit society at large, yet no claim to compensation is recognized or even broached. Utility rates are lowered by public service commissions, tariffs are reduced, military installations are shut down, yet no compensation is offered to those whose vested interests are adversely affected. The Eighteenth Amendment was imposed, yet the liquor interests were not compensated. Slavery was abolished, yet slaveowners were not compensated. Are we never to reduce farm subsidies because by now the farmers have obtained a vested interest? It is not usual for the government to compensate anybody when the rules of taxation are changed. Are we never to change the rules? Is not property legally held subject to changing laws? After all, we are faced with the choice of having government "confiscate" land rent, an income (or potential income) that, since land values are a social product, rightfully belongs to all, or having it "confiscate" personal incomes which are individually produced. Which alternative is ethically preferable?

Second, landowners receive from society a privilege—the exclusive use and disposition, at the expense of its other members, of a good that is the product of no human effort but without which production is impossible. Yet, through the years, society has received only a minuscule fraction of the value of this privilege; most has been appropriated by landowners. Hence, if any compensation is in order, it should be paid to society. Finally, imposition of the land-value tax, if sufficiently gradual, would be only mildly confiscatory; it would be financially tantamount to gradual compensation without interest. Assuming a parcel of land worth $10,000 and a capitalization rate of five percent, the annual rent would be $500. If this annual rent were appropriated by taxation gradually over a period of forty years, the average annual unappropriated rent during this period would be $250, which, at the end of the period, would total $10,000—the full value of the land. These are only a few of the arguments against compensation; he who wishes others may read, for example, George's A Perplexed Philosopher, part 3, chapter 11.

Walker, in First Lessons in Political Economy, informed his young readers that an increasing number of educated and experienced gentlemen believed in the nationalization of land, although they were still in the minority. He advised his students to place themselves with the majority until the opposite side had been proved beyond the shadow of a doubt.
To lengthen that shadow, Walker then listed two principal objections to the national ownership of land, under which rubric he erroneously included the single tax. First was the administrative objection that the amount of political machinery required to administer all the lands, and the immense opportunities for corruption and favoritism involved, would make the scheme unworkable. An army of officials was pictured crossing the land, fixing and re-fixing rentals, and making the individual ownership of improvements insecure.

Like the necessity for compensation, this was to become a familiar theme. In rebuttal, supporters of George's proposal pointed out that it could be administered locally rather than nationally, and would in no way require any more officials than already administered the general property tax. In fact, the opportunities for corruption would be narrowed, since buildings would no longer be taxed. Land titles would remain in private hands, thus safeguarding the ownership of improvements.

Walker's second objection concerned the conservation of the fertility of agricultural land. He said that conservation was of great historical importance, citing several ancient territories that once supported rich civilizations but because of soil exhaustion could no longer do so. He maintained that land nationalization would be harmful to soil conservation, for what farmer, he asked, would take care to conserve the fertility of soil he did not own?

This argument reflected the growing interest in the conservation of natural resources, and would be heard frequently in the years to come. But it lacks cogency. Even under the existing system of land taxation, the fertility of the soil had been carelessly exploited. Vast areas of the United States, fertile not so long ago, are now wastelands. Absentee farm ownership was an important contributory cause of this, for wherever it existed the tenant farmer was truly not farming his own soil, and was indeed likely to take an indifferent attitude toward long-run fertility. Under land-value taxation, however, since the speculative water would be squeezed out of land prices, thus bringing them within reach of the cultivator, absentee farm ownership would tend to disappear, thereby abetting the cause of soil conservation.

Perhaps most important of all, under land-value taxation land would be assessed and taxed according to its optimum use. In the case of agricultural land, optimum use would reflect the application of fertilizer. If a farmer did not fertilize or otherwise conserve his soil, he would still be assessed and taxed as if he did. Thus he would be encouraged to conserve his land properly in order to derive the maximum income out of it, so that he could have a profit from it after paying the tax. Not only that, but there would be no tax on his fertilizer or other conservation investments, hence such investments would be stimulated.

One more point: a prudent farm owner who cultivated his own land would not be likely, under any tax system, to deliberately ruin the fertility of his soil; farm improvements are not easily moved, and if the soil became worthless or severely depleted, they would sharply depreciate in value. And, of course, proper soil-conservation practices could be mandated by law, as much under land-value taxation as under the current system.

So much for the strictures of General Walker, George's earliest, and
superficially most formidable, serious academic adversary. On close examination he seems somewhat of a paper tiger!

Notes

3. Ibid., p. 162.
5. Ibid., p. 428.
12. Ibid., pp. 432-34.
16. Ibid.
18. Ibid.
21. Ibid., p. 446.
25. Ibid., p. 27.
27. Ibid., p. 209.