

here the keystone of the arch, which completes the structure and binds together the other members into a symmetrical whole spanning the entire field of distribution. We shall not, however, be able to appreciate all the consequences of this theory, until we have carried our studies through the subject of wages, the remuneration of labor.

316. Getting Rid of the Employer.—In the department of Production we described the function of the entrepreneur, or employer, the person who, hiring labor on the one hand, and borrowing capital on the other, initiates industrial operations according to his own plans, and with a view to his own economic benefit. Coming down to the department of Distribution, we have, but just now, inquired how the contemplated benefit is secured by the employer, and what are the limits of that benefit, which we term profits.

It has been said, in the course of this discussion, that this benefit obtained by the employer, his profits, has been the object of not a little jealousy and envy on the part of the laborers and capitalists to whom he has paid wages or interest. Those wages and that interest the recipients would be glad to see increased by some addition derived from the source from which the employer obtains his profits. This could only be done by the laborers and the capitalists combining to perform the employer's work in production, and thereby becoming entitled, or perhaps we had better say enabled, to claim his share of the product in distribution.

317. Co-operation.—Organized and systematic efforts to get rid of the entrepreneur or employer have not been unknown. Among the many schemes for largely and rapidly improving the condition of the masses of the people, which had their birth in the period of social and political fermentation which we call the Revolution of 1848, none had fairer promise of substantial results than that known by the name of Co-operation.

Generically, co-operation is a term of wide application, and, in its use in political economy, may express the union of industrial agents in production upon any terms and under any system of organization. Since the period referred to, how-

ever, the term has come to have a limited signification, confined to an industrial organization from which the entrepreneur is excluded, and under which the product of industry is again to be divided into three principal shares, instead of four as under the entrepreneur system. I here only indicate the place which co-operation occupies in the scheme of Distribution, postponing the discussion of the scheme to Part VI.

CHAPTER V.

WAGES.

318. Definition of Wages.—We have seen three shares cut off the product of industry. Of the four principal parts* into which that product is divided, under the entrepreneur organization, as existing almost universally in England, and as rapidly extending in the United States, on the continent of Europe, and in all progressive countries, there remains but one to be treated, Wages, the remuneration of labor.

Before seeking the law which governs wages, two distinctions require to be drawn very clearly, distinctions which the reader will need to hold strongly in mind through the whole course of our future discussion, the distinction, *viz.*, between real and nominal wages, and that between the real and the nominal cost of labor.

319. Real and Nominal Wages.—Real wages are the remuneration of the laborer as reckoned in the necessities, comforts and luxuries of life.

Real wages may differ widely, even when nominal wages are of the same amount, by reason of :

- (a) Variations in the purchase power of money.
- (b) Varieties in the form of payment, as when the board of the laborer, the rent of a cottage, the privilege of grazing a

* Certain minor shares in distribution will be treated in the next chapter. For the purposes of the present discussion they may safely be disregarded.

cow, allowances of certain quantities of food, drink or fuel, the right to take flour at miller's prices, one or more of these, are added to the money wages of the laborer. Such forms of payment are not of much importance throughout the United States, generally, at the present time; but in many European countries they constitute elements which can not be overlooked in discussing the question of comparative wages. In England, a series of acts of Parliament, extending over four hundred years, have successively restricted the right of the employer to pay wages in aught but the coin of the realm.

(c) The greater opportunities in some avocations than in others for extra earnings by the laborer himself or by the members of his family. Thus, Prof. Senior says: "The earnings of the wife and children of many a Manchester weaver exceed or equal those of himself. Those of the wife and children of an agricultural laborer, or of a carpenter or coal-heaver, are generally unimportant." The true unit in the comparison of wages is evidently the family.

320. (d) The greater regularity of employment in some avocations than others. Varying regularity of employment may be due to (1) the nature of the individual avocation, (2) the force of the seasons, (3) social causes, (4) industrial causes, like strikes, panics, and so-called "hard times."

In illustration of the foregoing causes, we have the widely varying rates of agricultural wages from one season to another, being often, *e. g.*, more than twice as great in the third as in the first quarter of the year. This is due to both of the first two causes adduced. It is not alone the difference of the seasons which makes agricultural wages so irregular; in part, also, it is the nature of the operations involved. After the seed has been planted, time must be given it to grow, and this would be so were there no winter. So in the fisheries, it is not alone the stress of weather which obliges the laborer to lie idle during portions of the year, but, in part, the reproductive necessities of the fish. In other avocations it is the force of the seasons alone which makes employment irregular, as, for example, in the brickmaking, quarrying, carpentering, house-painting, and other trades.

Among social causes affecting the regularity of employment, as between country and country, may be mentioned the observance of festivals and religious rites, which among some peoples occupy a hundred and more days in the year.

(e) The longer duration of the labor power in some avocations and some countries, than in others.

Thus, Dr. Neison has shown that the mean mortality in England between 25 and 65 years of age, is, in the clerical profession 1.12 per cent.; in the legal, 1.57; in the medical, 1.81. In domestic service, the mortality among gardeners, is but .93 per cent.; among grooms, 1.26; among coachmen, 1.84. Of the several branches of manufacture, paper shows a mean mortality of 1.45; tin, 1.61; iron, 1.75; glass, 1.83; lead, 2.24; earthenware, 2.57. Among the different kinds of mining, iron shows a mean mortality of 1.80; tin, 1.99; lead, 2.50; copper, 3.17.

Dr. Edward Jarvis has shown that, on the average, an Irishman who has reached the age of 20, has 28.88 years to live; a Frenchman, 32.84; an Englishman, 35.55; a Norwegian, 39.61.

It is evident that if two persons begin to labor productively at the same period of life and continue at work until death, at the same nominal rate of wages, that one receives the higher real remuneration who lives the longer, inasmuch as the cost of his maintenance during the first unproductive years of life, must, in any philosophical view of the subject, be charged upon his wages during his period of labor.

321. **Nominal and Real Cost of Labor.**—Another distinction which requires to be observed is that between wages and the cost of labor.

In treating wages as high or low, we occupy the laborer's point of view. In treating the cost of labor as high or low, we occupy the point of view of the employer.

Wages are high or low according to the abundance or the scantiness of the necessities, comforts and luxuries which the laborer can command. The cost of labor is high or low, according as the employer gets an ample or a scanty return for the wages he pays the laborer, whether these be low or high.

It is possible that an employer may pay high wages, and yet the cost of labor to him may prove to be low, by reason of the laborer's superior efficiency. On the other hand, the employer may pay wages on which the laborer can only live most miserably, and yet the employer be greatly straitened to get back these wages in the value of his product, so poor and wasteful may be the services rendered.

In Part II. we have explained at great length the causes which affect the laborer's efficiency.

It is probably true that, as a rule, the highest paid labor is that which costs the employer least. This is evidenced by the two facts that, generally speaking, employers, when they reduce their force, discharge their lowest paid laborers first; and that, generally speaking, it is the countries where the lowest real wages are paid which feel the necessity of imposing commercial restrictions to keep out the products of others. Thus, India, where the cotton spinner gets only 20 pence a week, is flooded by the cottons of England, where the spinner receives 20 shillings; and Russia, where the laborer in iron works receives but three roubles a week, has to protect herself, or thinks she must do so, against the iron of England, where the workman receives four or five times as much.

322. Relation of Wages to the Other Shares of the Product of Industry.—It has not been by accident, or whim, or from any notion respecting the comparative dignity of the several claimants to the product of industry, that rent, interest, and profits have been discussed before wages.

This order has been followed for a positive reason, which is that, in the theory of distribution here proposed, wages *equal* the product of industry *minus* the three parts already determined in their nature and amount. In this view, the laboring class receive all they help to produce, subject to deduction on the three several accounts mentioned.

323. Rent Deducted.—First, rent is to be deducted. On the lowest grade of lands there is no rent. On the more productive soils rent, at its economic maximum, equals the excess of produce after the cost of cultivating the no-rent soils has been paid. This rent does not affect the price of agricultural

produce, and does not come out of the remuneration of the agricultural laborer.

We thus see that the first deduction to be made from the product of industry is of a perfectly definite nature, and that, on the assumption of active competition on both sides, the amount of that reduction is susceptible of arithmetical computation. Rent must come out before the question of wages is considered. The laborer can not get it, or any part of it, by any economic means. It must go to the land-owner, unless it be confiscated by the State, or ravished away by violence.

324. Interest Deducted.—Secondly, from the product of industry must be deducted a remuneration for the use of capital. That remuneration must be high enough to induce those who have produced wealth to save it and store it up, in the place of consuming it immediately for the gratification of personal appetites or tastes. This may imply, in one state of society, an annual rate of interest of eight per cent.; in another, of five; in another, of three.

325. Profits Deducted.—The third and last deduction to be made from the product of industry before the laborer becomes entitled thereto, is what we have called profits, the remuneration of the entrepreneur, the employer, the man of business, the captain of industry, who sets in motion the complicated machinery of modern production.

From the importance assigned, in this work, to the entrepreneur's or employer's function, the conclusion might be hastily drawn that production would be primarily for his benefit, that he, if any one, would be the residual claimant upon the product; that, paying the capitalist, on one side, enough, under the name of interest, to secure the use of his capital, and paying the laborer, on the other side, enough, under the name of wages, to secure his services, this man of business, captain of industry, merchant, manufacturer, or banker, would retain as his own all that remains. And so, indeed, in any individual transaction he does, owing to the force of contract, just as the farmer, under a lease, pays the owner of the soil no more in years when the yield is exceptionally large, and no less in years when the crops are short.

If, however, we have correctly indicated the source of the employer's profits, they are of the same nature as rent. As there are no-rent lands, so there is a class of employers who derive from the business they conduct a bare subsistence, at the cost of much anxiety, and perhaps also of discredit, many of them living mainly at the expense of their creditors. These we call the no-profits employers.

From this point, where profits, if any, are so small and so hardly earned that they may, for scientific purposes, be disregarded, upwards through many grades, we have employers who derive moderate profits, liberal profits, grand profits, monumental profits aggregating in a lifetime colossal fortunes, according to the degrees in which they bring courage, prudence, foresight, frugality, and authority over men, to the organization and conduct of business enterprises. If I am right in this view of the nature of the entrepreneur's function and of the source of his profits, those profits would, under full and free competition, not form a part of the price of commodities, and are not obtained by deduction from wages. In other words, these profits consist wholly of wealth created by the individual employers themselves, over and above the wealth which would have been produced, in similar industrial enterprises, by the same labor-force and capital-force under the control of employers of less efficiency.

326. The Laborer, the Residual Claimant to the Product of Industry.—These three shares being cut off the product of industry, the whole remaining body of wealth, daily or annually created, is the property of the laboring class;* their

* This is substantially the position taken by the lamented Prof. Stanley Jevons, of University College, London, who states that "The wages of a working man are ultimately coincident with what he produces, after the deduction of rent, taxes, and the interest of capital." In this matter of Wages, Prof. Jevons emphatically repudiates the doctrines generally accepted in his own country, saying: "Our English Economists have been living in a fool's paradise," and frankly ranges himself with the French economists, "from Condillac, Baudeau, and Le Trosne, through J. B. Say, DeStutt Tracy, Storch, and others, down to Bastiat and Courcelle Seneuil."

"The truth," he declares, "is with the French School, and the sooner

wages, or the remuneration of their services. So far as, by their energy in work, their economy in the use of materials, or their care in dealing with the finished product, the value of that product is increased, that increase goes to them by purely natural laws, provided only competition be full and free. Every invention in mechanics, every discovery in the chemical art, no matter by whom made, inures directly and immediately to their benefit, except so far as a limited monopoly may be created by law, for the encouragement of invention and discovery.

Unless by their own neglect of their own interests, or through inequitable laws, or social customs having the force of law, no other party can enter to make any claim on the product of industry,* nor can any one of the three parties already indicated carry away any thing in excess of its normal share, as hereinbefore defined.

327. The English Doctrine of Wages.—The view here taken of the Distribution of Wealth, under the entrepreneur organization of industry, differs widely from that held by the English economists, except as respects the single share of the landowner—Rent. According to those writers, the capitalist-employer is the residual claimant upon the product of industry. DeQuincey summed up the Ricardian doctrine in saying: "Profits are the leavings of Wages."† From the entire

we recognize the fact, the better it will be for all the world, except, perhaps, the few writers who are too far committed to the old erroneous doctrines to allow of renunciation." [Preface to the Second Edition of his *Theory of Political Economy*, 1880.]

I may remark that when, in 1874, I had occasion to trace the genesis and the literary history of the Wage Fund Theory (See *North American Review*, January, 1875), I did not find a single French economist infected by the pernicious doctrine which long held sway across the channel.

* With the exception, still, of the State and of the speculator, whom it has seemed best, for clearness of view, to remove altogether from the present discussion, and whose shares in the distribution of the product of industry will be elsewhere considered.

† "There is no other way," said Ricardo, "of keeping profits up, but by keeping wages down." "Profits," said Mr. McCulloch, "vary in-

product of the exertions and sacrifices of the industrial community, there is cut off Rent, as determined by the Ricardian formula. Next the laborer's share is ascertained in accordance with the Wage Fund,* the amount possibly to be paid in this way being irrespective alike of the number and of the industrial quality of the laboring class. The rest belongs to the capitalist-employer, as his own profits, so-called, consisting of two portions, one, due to the abstinence of the owner of capital, as such; the other due to the present, personal exertions of the employer, as such.

By this rule of distribution, no gain in the efficiency of the individual laborer, whether taking the direction of greater energy or of greater economy; no mechanical invention, no chemical discovery, however much the capability of production may be increased thereby, can profit the laborer any thing, except as it first enhances the profits of the employing class, and thereby adds to the capital of the wage fund, to be thereafter expended in purchasing labor.

328. In What Sense Wages are the Residual Share.—I have spoken of the laborer as the residual claimant upon the product of industry. That view of wages being new, even the phrase in which I have embodied it has been excepted to. Since the first edition of this treatise was published, certain writers have declared that there is no more reason for applying the term, residual, to wages than for applying it to any other share of the product of industry; that each share, in turn, comprises all which the other shares do not include.

versely as wages; that is, they fall when wages rise, and rise when wages fall."

In both these statements, the word profits is used to include interest, as elsewhere explained.

*A discussion of the Wage Fund Theory will be found in Part VI. A few years ago, I should not have presumed to pass by this point without undertaking a formal refutation of that theory which, till recently, had complete possession of the English Economists. The fact that, though now generally abandoned, it still holds its place in so many treatises on the shelves of our libraries, some of which are even now used as text-books in our Colleges, appears to require some notice to be taken of it.

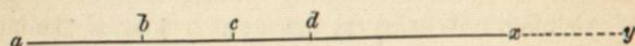
The criticism of these writers is not just. It is competent to them to controvert the view of the origin and measure of business profits presented in the last chapter; and, in expressing their dissent therefrom, they will, of course, deny that wages constitute the residual share of the product. But no one can properly make question that, if this view of business profits be accepted, as correctly setting forth, in the large way, the facts of industry, not only is what is manifestly meant by the phrases, residual claimant, residual share, completely true, but also that those phrases themselves are perfectly accurate in the expression of that meaning.

329. Upon the theory of profits which has been expounded, the remuneration of labor, wages, is strictly the residual share of the product of industry, residual in this sense, that it is enhanced by every cause, whatever that may be, which increases the product of industry without giving to any one of the other three parties to production a claim to an increased remuneration, under the operation of the principles already stated; residual in the sense that, even if any one or all of the other parties to production become so engaged in any given increase of the product as to become entitled to an enhanced share in its distribution, their shares still remain subject to determination by positive reasons, while wages receive the benefit of all that is left over after the other claimants are satisfied.

330. The Operation of the Rule Illustrated.—Granting the correctness of the analysis we have offered, it is demonstrable that the product of industry may be increased without enhancing the share of all or of any of the other parties to distribution; and, even when the other shares are enhanced, it is possible and even probable that, on the assumption of perfect competition, the increase of product resulting from the introduction of any new force into industry will be greater than the sum of the increments by which rent, interest, and profits shall have been enhanced. If this be so, then the wages class will receive a benefit from any increase of the product of industry corresponding to that derived by the residuary legatee whenever the total value of the estate con-

cerned is ascertained to have been, or from some unanticipated cause becomes, larger than was in contemplation of the testator when the amounts of the several specific bequests were determined upon.

331. Thus, to take the simplest possible case, let us say that the line ax



represents the amount of the production of a given community. Of this total, ax , let ab represent the share going to the land-holding class as rent; bc , the remuneration of the capitalist class, under the name of interest; dx , the portion of the produce paid in wages; and, by consequence, cd , the part retained by the employing class as profits. Let it now be supposed that an instantaneous improvement takes place in the industrial quality of the laboring class, by which they become so much more careful and painstaking, more adroit and alert, more observant and dexterous, as to effect a saving in the materials used in each and every stage of production, with a resulting increase of ten per cent. in the finished product over what had been accomplished by more wasteful, clumsy, heedless operatives. This assumption is certainly not an unreasonable one, as regards the extent of the possible saving to be effected through even a slight improvement in the industrial quality of a laboring population. The total product will then be represented by the line ay .

Our question is, To whom will go that portion of the produce which is represented by the dotted line xy , under the normal operation of economic forces?

I answer, If our analysis of the source of business profits is correct, this will go to the laboring class in enhanced wages.

332. To whom else should it go? To the landlord class, in higher rents? No, clearly not, since the materials employed have not been increased, but the gain to production results from a better economy of materials, in kinds and amounts as before. Hence, no greater demand is made upon

the land; hence, cultivation is not driven down to inferior soils; hence, rents can not be enhanced, rent representing only and always the excess of produce on the better soils above that of the soils of the lowest net productiveness under cultivation. The line ab , therefore, remains unchanged.

Shall the line bc show any change? Shall all or any part of the gain xy go to the capitalist class, as interest? Again, no. An improvement in the industrial quality of the laboring class does not necessarily increase the amount of tools and supplies required in production. On the contrary, neat, intelligent, careful workmen require even fewer tools than ignorant, slovenly, heedless workmen, to perform the same kind and amount of work, since in the case of the former there will be a smaller proportion at any time broken or dulled or from any cause awaiting repair. Since, then, there is no greater demand for capital in the case supposed, there can be no increase in the rate or amount of interest; and the line bc will, therefore, not be lengthened.

Will the whole or any part of xy go to the employing class, as increased profits? If we have correctly discovered the source of business profits, this will not be the case. An improvement in the industrial quality of a given body of workmen would not require an increase in the number of employers; hence, would not, could not, enhance the aggregate amount of profits. On the contrary, an improvement in the industrial quality of the laboring class would tend, and would tend strongly, to raise the standard of business ability in the employing class; to drive out the more incompetent, thereby raising the lower limit of production in this respect, and thereby reducing the aggregate amount realized as profits.

We see, therefore, that the line cd will not be increased, in the case supposed; and, as we have proved the same respecting ab and bc successively, the whole of xy must go to lengthen the line dx , representing the amount previously received by the laboring class as wages.

333. We have thus far, for convenience of reasoning and simplicity of illustration, assumed that the economic effect of the improvement in the industrial quality of the body of

laborers in view, is confined to an increase in the amount of the finished product through a diminution in that element of waste which enters, more or less, into all production of wealth. The same argument would hold good of an improvement in the industrial quality of the laboring population which should result in the production of goods of equal bulk and weight, but of a greater value through a higher quality, a more perfect finish, a nicer adaptation to the wants of the community. Not only is such an increase in the value of the product, which does not increase the amount of materials taken from the soil and hence has no tendency to enhance rents, possible, but *instances of this character are, more than any other, representative of the modes of production in communities of advancing civilization.* Articles are often sold for twice, thrice or ten times as much as other articles, containing the same amount of material, simply by reason of the skill and taste which has enhanced their value to the consumer. In all such cases, the increase due to the improvement in the industrial quality of the laboring classes would, under the principles laid down, go, entire, to the laborers themselves, granted only perfect competition.

334. But such an improvement in industrial quality would probably be followed, sooner or later, by an actual increase in the amount of material employed. In this case, what would be the distribution of the produce? The increase would no longer go entire to re-enforce wages. A larger amount of materials being used, a greater demand would be made thereby upon the productive powers of the soil; the lower limit of cultivation would be pushed downwards, a longer or a shorter distance, to supply the increased demand; and rent would be enhanced, as in all prosperous and progressive countries it certainly tends to be.

But the amount which would thus go to enhance rent—it might be much, it might be little—would still be limited by the Ricardian formula; and all the remainder would be applied, under the principles laid down, to increase the remuneration of labor, the portions reserved as interest and profits suffering no change.

335. But suppose, again, that the improvement in the industrial quality of the laboring class is carried to such a degree as to qualify them to use a higher order of tools, more complicated, more delicate, and hence more expensive; or to abandon the hand-tools, heretofore employed, for costly and powerful machines. Here we should have an increased demand for capital; and, by consequence, supply remaining, for the time, unchanged, interest would be enhanced. But the amount by which interest would be thus enhanced would not be the amount by which production was increased. On the contrary, the rate of interest would still be governed by the relation between the supply of and the demand for capital; and all the increase of product which was not thus taken would, under the principles laid down, go directly and exclusively to increase wages.

336. We may illustrate this by supposing a workman, who has hitherto been using a few coarse, simple, cheap and durable tools, in producing a low-grade article, to have qualified himself, by private study and practice, to use numerous, delicate and intricate tools, in doing a high order of work, in the same branch of industry. The cost of maintaining the stock of tools of the former kind might have been, including interest, repairs and occasional replacement, five dollars, a year. The cost of maintaining the stock of new tools might be fifty dollars a year. But the increased daily value of the product, due to the introduction of a superior order of workmanship, might be a dollar, or two dollars, a day. What I am insisting upon is, that, not only would the individual workman, in the given instance, if he intelligently pursued his own interest, secure higher wages, corresponding to the increased value of his production, *minus* the added cost of the service (which probably no one would deny), but that what would be true of the individual workman will be true of the working class, as a whole, so far as, by an improvement in their industrial character, they qualify themselves for a higher grade of production, higher in respect to quality or to amount.

And it is to be remembered, in this connection, that what-

ever the advantage which the added demand for tools or machinery may, in the immediate instance, give to the owners of existing capital, that advantage will steadily tend to decline. Thus, in the case supposed, the first equipment of the improved laborer for his new work, might cost \$200, increasing the demand for capital to this extent, and thus raising somewhat the sum obtained in that community, that year, as interest. But the increase of production, might, as we have reasonably supposed, amount to even more than \$200 annually; so that the supply of capital, relatively to the demand, might, after a single year, be greater than before; while the capability of accumulating capital during each succeeding year would be greatly enhanced.

CHAPTER VI.

WAGES.—CONTINUED.

THE CONDITIONS OF THE LABORING CLASS AS AFFECTED BY IMPERFECT COMPETITION.

337. The Economic Position of The Laboring Class.—In Chapter V. we set forth the relation of wages to the other shares of the product of industry, reaching the conclusion that, notwithstanding the formal attitude of the laboring class in industry, as hired by the entrepreneur class and working for stipulated wages, the normal operation of the laws of exchange is to make the former, in effect, the owners of the entire product, subject to the requirement of paying the definite sums charged against that product, on the three several accounts of rent, interest and profits.

338. What Will They do With it?—This position of the laboring class would seem to be a not ineligible one, conceding that the exigencies of modern production require the maintenance of the entrepreneur class.

We have seen what is the best the laboring class can, in theory, do for themselves, under the existing organization of

industry: what is the most they can claim for their services. Let us now inquire, what, in fact, this class do for themselves in this respect; and if they fall short of realizing their full share of the product of industry, to what causes the failure is to be attributed.

The laboring class may do themselves an economic injury in either or both of two ways: first, through excessive reproduction, sexually, leading to over-population, involving the necessity of cultivating poorer and poorer soils, with the result of continually diminishing *per capita* production; secondly, through a weak, spasmodic, or unintelligent competition with the employing class.

The consideration of the former of these causes will be postponed till we reach the department of Consumption. The latter will form the subject of the following paragraphs.

339. Imperfect Competition.—A total failure of competition is impossible. No class will be found so stolid and inert as to make no exertions whatever to change a worse for a better condition. The impulse to buy in the cheaper and to sell in the dearer market will, in some measure, actuate every body of laborers. Yet the degree in which that motive is effectual will be found to vary widely as between men of different climes, and of different races. Compare the New Englander with the East Indian. The former, inquisitive, alert, aggressive, almost destitute of attachment to locality, quick to change his avocation, if a profit shall appear, and so gifted with mechanical insight and aptitude as to acquire the rudiments of any art in an astonishingly short time; occupying a country where the transmission of intelligence is incessant, and where the transportation of passengers and freight reaches the maximum of ease, security and cheapness; enjoying the advantage of a wide margin of living, and with no inconsiderable savings laid by from the liberal earnings of former years, is not likely to remain long ignorant of opportunities for improving his industrial conditions, whether through change of place or avocation, or likely long to allow such opportunities to remain unimproved. We get a measure of this freedom of individual movement in the census statistics, by which it ap-